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**Perceived Competencies of Elementary School Children:
A Comparative Study of the Self-Perceptions of Aggressive and Nonaggressive Children**

by

Nancy L. Sinclair

**A thesis submitted to the Faculty of Graduate Studies and Research
in partial fulfillment of the requirements for the degree of**

Master of Arts

Department of Psychology

Carleton University

Ottawa, Ontario

April 26th, 2000

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A Comparative Study of the Self-Perceptions of Aggressive and Nonaggressive
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submitted by

Nancy Sinclair

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Chair

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Abstract

The perceived competencies of physically and relationally aggressive children were examined. Further, rejection status was included to determine its effect on aggressive children's self-perceptions. There were 357 (176 boys, 181 girls, $M_{age} = 10$ years old) participants. A peer nomination procedure was used to classify children into aggression (i.e., physical, relational, physical/relational, and nonaggressive) and rejection groups (i.e., rejected, nonrejected). Perceived competencies were assessed with a self-report measure. It was found that physically aggressive and relationally aggressive boys and girls reported levels of self-perceptions that were similar to nonaggressive children. Physically/relationally aggressive boys and girls were the only aggression group to report low self-perceptions (i.e., behavioral conduct). Even though physically/relationally aggressive boys and girls were the most disliked group, they did not report low levels of social acceptance. Finally, for all three types of aggressive children, self-perceptions did not vary as a function of rejection status.

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**Perceived Competencies of Elementary School Children: A Comparative Study of the
Self-Perceptions of Aggressive and Nonaggressive Children**

**"We must be true inside, true to ourselves,
before we can know a truth that is outside of us."**

Thomas Merton

The self-concept serves as a system to allow for reflection, influence, and internalization of feedback from outside sources. Self-concept issues have become a focus for many interventions based on the premise that an individual's self-concept is the core motivator of one's behavior (Bracken, 1996). One behavior in particular that the self-concept is associated with is aggression. Engaging in the social behavior of aggression has serious repercussions for children. In fact, engaging in aggressive acts, elicits one of the strongest negative responses by peers (Coie & Koeppi, 1990). During the elementary school period, self-perceptions are being formed and crystallized, thus it is critical to understand the type of feedback aggressive children are receiving and how this information influences their self-perceptions.

The purpose of the present study was to examine the self-perceptions of physically and relationally aggressive children. In addition, since rejection status is one of the strongest predictors of internalizing disorders (e.g., depression, loneliness, low perceived competencies), it was an important variable in this research study. It was of interest to examine the effects of rejection status on self-perceptions, over and above the effects of aggression (Boivin, Poulin, & Vitaro, 1994; Hymel, Rubin, Rowden, & LeMare, 1990).

A brief historical background on self-perceptions will be presented. Important issues related to measuring self-perceptions will be discussed. An overview of physical and relational aggression will be presented, followed by specific hypotheses for the self-perceptions of these two types of aggressive children. Finally, research regarding the association between peer rejection and self-perceptions will be presented, and specific hypothesis related to rejected and nonrejected physically and relationally aggressive children will be discussed.

Self-Perceptions

Theory and Measurement

William James (1890), one of the first researchers to validate the examination of the self-concept, considered self-perceptions to be the core of human behavior. The most significant contribution of James was his distinction between the “I” self and the “Me” self. According to James, the “I” self thinks and reflects about the “Me” self and the “Me” self represents an aggregate of things objectively known (Hattie, 1992). The “Me” self signifies what is presently referred to as the self-concept.

James further sub-divided the “Me” self into three major “constituents”, which represent a multidimensional hierarchical structure. The three major constituents are the material self, at the bottom of the hierarchy, followed by the social self, and then the spiritual self at the top of the hierarchy. The material self constitutes one’s body and possessions. The social self reflects the recognition one receives from family and friends. James’ conceptualization of the social self reflects his belief that the self is continually being shaped by outside sources. In fact, James once remarked that whenever two people meet there are really six people present. “There is each man as he is, each man as the other perceives him and each man as he perceives himself”

(James, 1890). The spiritual self is composed of the subjective being which reflects upon thoughts and actions and delivers moral judgements. James' conceptualization of the "Me" self and the three major constituents paved the way for future models to conceive the self as a multidimensional hierarchical structure (Bracken, 1996).

Cooley (1902), another influential researcher in the area of self-perceptions, believed the self was primarily influenced through "symbolic interactions". Cooley spoke of the "looking glass self" which refers to the notion that individuals define themselves by looking into a "social mirror" and internalizing opinions and judgements of others. Thus, Cooley believes the self becomes what we perceive others think of ourselves. There are three elements to Cooley's conceptualization of the self: a) the imagination of our appearance to the other person; b) the imagination of the person's judgment of the appearance; and c) a self-feeling such as pride or shame. The principle of the looking glass has become the basis for social psychological research and is reflective of a variety of psychological theories such as social comparison theory, social cognition theory, and self-fulfilling prophecy theory.

Building from the theories of both James (1890) and Cooley (1902), Harter (1985) conceptualized the self as a multidimensional hierarchical structure that is influenced by both internal and external sources. Harter's well established theory of self-perceptions is predicated on the premise that individuals differentiate between various domains of their lives while formulating their sense of self. Harter's model of self-perceptions has been applied to children as young as pre-school (Harter & Pike, 1983) up to adulthood (Messer & Harter, 1986). Harter's scale for elementary school children (i.e., 3rd to 6th grade), The Self-Perception Profile for Children, measures domain specific self-perceptions (e.g., social acceptance, behavioral

conduct) and a non-domain self-perception labeled global self-worth. The presence of domain specific self-perceptions reflects an underlying ideology that individuals are capable of differentiating between various aspects of the self. Thus, Harter's model allows individuals to specify the weight and combination of each specific domain to their judgements of global self-worth (Bryne, 1996). In support of Harter's model, results of past research indicated that children as young as eight years old were capable of describing behavior in relation to different domains in their lives, as well as, evaluating perceptions of their global self-worth (Harter, 1989).

In summary, much of the literature and research that focused on self-perceptions originated from the theories of James and Cooley. These two theorists built a foundation in which self-perceptions were viewed as multidimensional, hierarchical, and influenced by sources both within and external to the individual. Building from the early theories of James and Cooley, Harter has worked on validating these theories by conceptualizing these ideas into practical measures of self-perceptions.

Unidimensional versus Multidimensional

Even though the notable theories of James (1890), Cooley (1902), and Harter (1985) support a multidimensional construct of self-perceptions, controversy continues to exist as to whether self-perceptions are unidimensional or multidimensional constructs. Advocators of a unidimensional construct believe self-perception scales must include a number of items measuring different domains which are then summed to create an overall index of self-concept. Researchers who support a unidimensional scale of self-concept believe individuals are incapable of making distinctions among different domains in their lives.

Coopersmith (1967), a prominent advocator of the unidimensional self-concept perspective, believes the self-concept is dominated by a general factor, such that separate factors for different domains cannot be differentiated. In Coopersmith's (1967) early work he constructed a 50 item instrument with four subscales in an attempt to validate his belief that individuals are incapable of making distinctions among the self that are domain specific. Consistent with Coopersmith's hypothesis, the results failed to support the four subscales of self-concept. In addition, Marsh and Smith (1982) tested Coopersmith's self-esteem measure and was unable to find support for this measure of self. Thus, the results of both studies provided no support for the four subscales of self-concept proposed by Coopersmith, but perhaps more importantly, neither study supported a unidimensional construct of self-concept. In fact, in their study, Marsh and Smith (1982) found support for a multidimensional construct via factor analysis. Results of the factor analysis revealed 21 eigenvalues greater than 1.0., suggesting approximately 21 factors existed.

In contrast to the unidimensional construct research, researchers investigating the multidimensional structure of self-concept have consistently found support for their perspective (Chapman & Tunmer, 1995; Harter, 1985; Harter & Pike, 1984; Marsh, 1989, Marsh & Hattie, 1996, Shavelson & Bolus, 1982). Proponents of a multidimensional self-concept believe that as individuals develop they begin to make distinctions among different domains in their lives reflecting domain specific self-perceptions (Harter, 1985). For example, supporters of the multidimensional self-concept would argue that a person with a physical deformity would most likely have a lower physical appearance self-concept but not necessarily a lower behavioral or scholastic self-concept.

Shavelson was one of the first researchers to empirically investigate the existence of a multifaceted hierarchal self-concept. In a study conducted by Shavelson and Bolus (1982), a unidimensional measure was compared with competing multidimensional measures to determine whether self-concept was multifaceted. Results of the pioneering study supported a multidimensional measure of self-concept. Specifically, the researchers demonstrated that general self-worth was differentiated from but correlated with academic self-concept. Specific subjects (i.e., self-concepts of math, science, English) were distinct but correlated with academic self-concept and general self-concept. General self-worth was described as the apex of the hierarchy with specific self-concepts at the base.

Consistent with Shavelson's research findings, Harter and Pike (1984) created a pictorial scale of self-perceptions for young children, 4 to 7 years old. The scale of self-perceptions consisted of items measuring both perceived competence (i.e., cognitive and physical) and social acceptance (i.e., peer and maternal) of children. Results of the factor analysis illustrated that the two separate constructs of perceived competence and social acceptance existed, thus supporting a multidimensional measure of self-concept.

With a slightly older sample (i.e., grade 3 to 6), Harter employed a correlated factor model, which takes into account correlations among domain specific self-perceptions, and with global self-worth (Bracken, 1996; Harter, 1985). The five domain specific self-perceptions were social acceptance, behavioral conduct, physical appearance, athletic competence, and scholastic competence. Results of Harter's research validated the existence of a correlated multidimensional model of self-perceptions for elementary school children (Harter, 1989).

Finally, with a sample of pre-adolescents, early-to-late adolescents, and young adults,

Marsh (1989) conducted a considerably large study ($N = 7954$) utilizing three self-description questionnaires. Similar to the above studies, results of factor analysis supported a multidimensional self-concept. Results of the above mentioned research clearly support the notion that individuals are capable of differentiating between various domains of the self at various stages of development. Thus, in the present study, a multidimensional approach will be undertaken to examine perceived competencies of elementary school children.

Developmental Issues

The developmental pattern of self-perceptions is another theoretical issue that has received a fair amount of attention in past research. There seems to be little consensus among researchers regarding the developmental pattern of self-perceptions. Results of research support both the flexibility and stability of the self-concept. Researchers supporting the flexibility of the self-concept believe that a curvilinear relation between age and self-perceptions exists (Marsh, 1989; Miller, 1987). As children enter elementary school, they report optimistic appraisals of their abilities that eventually decline during elementary and junior highschool, then increase again during highschool and adulthood. According to Marsh (1989), the age change reflects a shift from unrealistically high self-concepts to more realistic views of the self. He suggests that as children grow older they begin to appraise their relative status and performance more accurately by comparing themselves to others and internalizing external feedback.

In support of Marsh's hypothesis, Paris and Byrnes (1989) conducted a study on the self-perceptions of children and found that children under the age of eight years reported exaggerated appraisals of their ability. When the self-perceptions of eight year old children were compared to five year olds, Marsh, Craven, and Debus (1991), found that eight year olds had lower scores on

a peer relations subscale. Using the same peer relations scale, Marsh (1989) reported that scores on this subscale decreased further between second and ninth grade. Finally, Marsh (1989) found that more negative appraisals of the self were reported during preadolescence, followed by increasingly positive self-concepts during early adulthood, for males and females.

Contrary to the research presented on the flexibility of self-concept, there is also a plethora of research supporting the stability of self-perceptions (see Wylie, 1979 for a review). Harter (1982) believes that self-perceptions are quite stable across the school years and has found definite support for the hypothesis. In a study of young children (i.e., preschool through second grade), Harter and Pike (1984) found that levels of self-perceptions of competence (i.e., cognitive and physical) and social acceptance (i.e., peer and maternal) did not differ. In testing the reliability and validity of a measure of perceived competence for children, Harter (1982) found that self-perceptions of cognitive competence, social acceptance, physical competence, and general self-worth, were stable from grades three through nine. That is, the subscale means for four independent samples were quite stable across the different grades. In a related study, Ferrari and Sternberg (1998) conducted a longitudinal study from grades 4 to 6 and found that cognitive self-perceptions, as assessed by the Perceived Competence Scale for Children, remained stable for both boys and girls from grades 4 to 6. Finally, Chapman and Tunmer (1995), conducted a study to investigate the development of young children's reading self-concepts. The children were aged 5 to 10 years old, the developmental period that some researchers believe significant changes occur in self-perceptions. The results provided support for stability in children's perceptions of competence in specific domains such as reading.

Given that research supports both the flexibility and stability of self-perceptions, perhaps

a synthesis of the two approaches is most appropriate. Researchers have shown that self-concept varies with specific contexts, situations, motivation, and affective states (McGuire & McGuire, 1988; Schlenker, 1986; Schwarz & Clore, 1988). However, as Erikson (1968) remarked, we do not awake each morning to discover that we are strangers to ourselves. Thus, the self-concept is both stable and enduring yet somewhat flexible to environmental changes.

Gender Differences

Similar to the research on developmental patterns, research regarding gender differences in self-perceptions, has shown mixed results. In past research, boys have generally been found to have significantly higher self-concepts than girls (Marsh, 1989). However, Wylie (1979) and Bracken (1996) believe that gender differences in overall self-concept were reported in past research because of the unidimensional measures that were typically used. Marsh (1989) suggests that reliance on an overall measure of self-concept does not accurately reflect content-specific gender differences in multiple dimensions of the self-concept. That is, once multidimensional measure are employed, gender differences may become evident in some domain specific self-perceptions.

More recently, researchers have begun using multidimensional measures of self-concept to assess self-perceptions across a variety of domains (Bracken, 1992; Callaghan & Joseph, 1995; Granleese & Joseph, 1993; Harter, 1985). Interestingly, once multidimensional measures were employed in research, gender differences were reported quite consistently for two specific domains: athletic competence and physical appearance. For example, Granleese and Joseph (1993), using The Self-Perception Profile for Children (Harter, 1985), examined self-perceptions and global self-worth of elementary school boys and girls ($M_{age} = 13$). These researchers found

that boys scored significantly higher than girls on athletic competence and physical appearance. Similarly, Harter (1989) found that elementary school boys (i.e., grades 3 to 6) reported higher athletic competence compared to girls, whereas, girls rated their behavioral conduct higher than boys. As well, Callaghan and Joseph (1995) reported that elementary school boys (i.e., 10-12 years old) scored significantly higher than girls on the physical appearance subscale of The Self-Perception Profile for Children (Harter, 1985). Using a multidimensional measure of self-concept, Marsh and colleagues found that preadolescent boys reported higher self-concepts than girls in areas of physical appearance, athletic abilities, and general self, whereas, girls reported higher self-concepts in areas of reading and general ability and interest in school subjects (Marsh, Barnes, Cairns, & Tidman, 1984; Marsh, Relich, & Smith, 1983).

Interestingly, Marsh (1985) conducted a study assessing self-perceptions of a large number of elementary school children ($N = 3,565$). The results revealed that gender effects were very small and only accounted for less than one percent of the variance in total self-concept scores and less than 2% of the variance of any subscale that showed gender differences. In fact, only gender differences in perceived athletic abilities accounted for more than three percent of the variance.

In summary, different multidimensional measures have been used to examine self-perceptions of boys and girls. Regardless of the particular multidimensional measure used, gender differences have been consistently reported for children's perceptions of athletic competence and physical appearance, across a variety of studies (i.e., boys rating higher perceptions than girls; Bracken, 1996). In reference to Marsh's (1985) research, the gender effects that do exist tend to be minimal.

Social Comparison Theory

The theory of social comparison is based on the premise that individuals use significant others as frames of reference while forming self-perceptions, opinions and abilities (Ferrari & Sternberg, 1998; Festinger, 1954). There are a number of assumptions upon which social comparison theory is based. First, persons evaluate their self-perceptions, opinions, and abilities by comparison with others. Second, this comparison leads to pressures toward uniformity. Third, there is a tendency to stop comparing oneself with others who are very different from oneself. Fourth, factors such as importance, relevance, and attraction to a group will affect the strength of the pressure towards uniformity (Suls & Wills, 1991). In a review of the impact of social comparison, Brinthaupt and Lipka (1992) found there were specific characteristics that influence individuals to pay attention to the opinions, behaviors, and morals of others. Specific characteristics included: autonomy, control, participation, support, appreciation, communication, companionship, respect, closeness, dominance, and power.

To examine the impact of social comparison on self-perceptions, Renick and Harter (1989) conducted a study comparing self-perceptions of competence in normal, learning-disabled, and mentally challenged children. The researchers found that normal and mentally challenged children reported a similar level of self-perceptions, whereas learning-disabled children reported lowered self-perceptions. The researchers hypothesized the results were probably due to the social comparison group children used to evaluate themselves. For example, if mentally challenged children compared themselves to their mentally challenged peers, then they would not experience negative self-perceptions. If learning-disabled children compared themselves to their normal achieving peers, then, consequently, they would report lower self-

perceptions. Support for their hypothesis was found when the researchers explicitly asked learning-disabled children to compare themselves with other learning disabled children, resulting in the reporting of higher self-perceptions (Renick & Harter, 1989).

An innovative study done by Morse and Gergen (1970) demonstrated how perceptions of others can influence perceptions of self. In this study, researchers requested each participant to enter a room by themselves for a simple interview. While participants were waiting for the interview, researchers asked them to complete self-report questionnaires, including a self-esteem measure (Coopersmith, 1967). Following administration of the questionnaires, either a well-groomed or a sloppy and foul smelling applicant entered the room. Once the participant was exposed to either the well-groomed or sloppy applicant, the participant was asked to fill out a second set of self-esteem measures. As hypothesized, the results demonstrated that the mere exposure of another individual was influential in altering the participant's level of self-esteem. Specifically, participants who were exposed to the well-groomed person showed a decrease in their self-esteem, whereas, the participants who were exposed to the sloppy and foul smelling person showed an increase in self-esteem. This study illustrates how evaluations of the self can be easily altered by the process of social comparison.

Parental Influences

During infancy and pre-school years, parents are unquestionably the major influences on their child's sense of self. Attachment theorists propose that development begins with the infant responding similarly to social and non-social stimuli (Schaffer & Emerson, 1964). With the encouragement and support of a primary caregiver the infant moves towards a secure attachment. The caregiver-infant interaction is the first opportunity the infant has to form a

relationship involving feedback. As infants continue to interact with their caregivers they begin to develop internal working models (Bowlby, 1969). Internal working models are cognitive representations of the self, others, and relationships (Shaffer, 1999). According to Shaffer (1999), infants who possess positive internal working models have high self-confidence and are more inclined to establish reciprocal relationships, compared to infants with negative working models.

Parental factors such as divorce, conflict, abuse, and parenting style all impact upon the self-perceptions of developing children. Beer (1989) compared fifth and sixth grade children from divorced homes with a group of controls from nondivorced homes. As expected, the children from divorced homes reported lower self-perceptions. Related to divorce is parental conflict, which has been found to be a significant predictor of a child's self-concept. Gerber (1991) reported that lower self-concepts in elementary school children were a function of higher levels of parental conflict.

To test the hypothesis that physically abused children would report low levels of self-perceptions, Allen and Tarnowski (1989) compared the self-perceptions of physically abused elementary school children with a group of nonabused children. As hypothesized, physically abused children reported lower self-perceptions, compared to the nonabused group. It seems as though children who were physically abused came to believe that they did not measure up to their parents' standards. An interesting study was conducted to examine the effect of intrafamilial abuse versus extrafamilial abuse on elementary school children (Wagner, 1991). The results demonstrated that victims of intrafamilial abuse reported lower self-perceptions than children who experienced extrafamilial abuse. It has suggested that intrafamilial abuse has a

stronger effect on self-perceptions, due to closer relationships existing within the family unit (Bracken, 1996).

Finally, Baumrind's (1967; 1971) well known research on parental styles has consistently shown that parenting styles are predictive of children's adjustment and well being. In particular, authoritative parenting style has been found to be predictive of high self-esteem in children. Authoritative parenting style is characterized by a controlling yet flexible style.

The above mentioned studies demonstrate that an overall pattern of family factors shape and influence children's perceptions of themselves. The influence that parents have on children's sense of self begins early and becomes the starting point for which children begin to build their self-concepts.

Peer Influences

Since children spend a large majority of time in school, peers play a crucial role in shaping self-perceptions. The influence of peers begins when children first enter elementary school and continues well into adulthood (Shaffer, 1999). Thome and Michaelieu (1996) conducted a study that involved asking participants to reflect on past memories of friendly interactions. Upon reflection, the women participants reported that they experienced high self-esteem when they were interacting in supportive relationships with friends. Men, on the other hand, were more likely to derive high self-esteem from their ability to influence the behavior of their friends. With regards to low self-esteem, women reported that failure to gain their friend's approval was a major determinant, whereas for men, low self-esteem was due to lack of romantic competence (Shaffer, 1999). This study illustrates that individuals receive both social and emotional support via social networks (i.e., the peers with whom an individual regularly

interacts).

Vasta, Haith, and Miller (1992) suggest that the comfort and reassurance offered by a social network enhances and nourishes the self-esteem of the recipient. Furthermore, children who possess strong support systems tend to score better on measures of social adjustment, compared to children who have less supportive networks. In fact, research has consistently shown that children who are ignored or disliked by the peer group display more negative patterns of self-perceptions (Asher, Hymel, & Renshaw, 1984; Boivin & Begin, 1989).

Researchers suggest that with development, respect for parental knowledge declines, and peer evaluations rise in importance (McGuire & McGuire, 1982). By early adolescence Harter (1990) found that the correlation between peer support and global self-esteem increased with development, such that by early adolescence it equaled the impact of parent support. Harter and Johnson (1993), found that for high school seniors, parents' approval correlated highly with self-esteem. However, the pattern changed 6 months into the freshman year with the influence of parental approval on self-esteem decreasing dramatically, whereas peer approval, was found to be a strong predictor of self-esteem. Finally, among adults in the workforce, ages 25 to 50 years, the evidence indicated that approval from one's coworkers, as well as, from adults within one's church or civic group was the highest predictor of self-worth (Harter, 1990).

Behavior, Motivation, and Emotion

Eccles, a leading researcher in the area of behavior motivation, constructed a model built on the assumption that it is not reality itself that most directly influences behavior, but rather one's interpretation of reality (Eccles et al., 1983). In a number of studies, Eccles and colleagues have found continued support for a predictive relation between self-perceptions and

behavior (Eccles & Jacobs, 1986; Meece, Wigfield, & Eccles, 1990; Wigfield & Eccles, 1992; 1994).

Similar to Eccles et al. (1983), Phillips (1984) suggests that self-perceptions are not necessarily based on reality or objective feedback. Phillips (1984) says “the discovery of the relative independence of actual ability and motivational determinants of achievement is among the most intriguing findings to emerge from recent investigations” (p. 2000). Phillips conducted a study of fifth grade children’s perceptions of cognitive competence and their achievement orientations among fifth graders. Results of the study suggested that approximately 20% of children seriously underestimated their cognitive abilities, as measured by The Perceived Competence Scale for Children (Harter, 1982). These results are quite alarming since children identified as having underestimated their cognitive abilities also set less demanding standards for themselves and adopted lower expectancies for success. These children also believed their teachers expected less of them, which was confirmed by a teacher questionnaire. In a related study, Phillips (1987) found these results to be consistent of a younger population of third grade children. The results demonstrate that regardless of children’s achievement levels, some children fail to use objective indicators (e.g., grades, IQ scores) of their ability and instead depend on their interpretation or perception of their abilities to motivate their behavior.

To examine the predictive relation between self-perceptions and motivation and emotion, Harter (1989) conducted a study involving elementary school children. Utilizing both correlational and causal modeling techniques, Harter (1989) found that global self-worth predicted both emotional and motivational states. King, Akiyama, and Elling (1996) administered The Self-Perception Profile for Children to elementary school children ($M_{age} = 12$)

and found that low perceptions of peer social acceptance, physical attractiveness, and behavioral conduct predicted self-reported depressive symptoms. As well, Harter, Marold, and Whitesell (1992) found that perceived competencies significantly predicted negative affect (i.e., depression) in early adolescence. More specifically, an individual's low perceptions of social acceptance, perceived physical attractiveness, and perceived athletic competence were the strongest predictors of depression. Similarly, Teri (1982) found a negative relation between self-reported depression and self-concept for adolescents. Perhaps most alarming is the finding that young adolescents who reported high levels of depression and low levels of self-worth also reported high levels of suicidal thoughts (Harter, 1989).

The influential role that self-concept plays on behavior can also be understood by simply reviewing the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, APA, 1994). The manual lists low self-esteem as an associative feature of learning disorders, conduct disorders, and oppositional defiant disorder. In fact, the criteria for mood disorder includes low self-esteem as a diagnostic criteria characterized by “feelings of worthlessness” (Bracken, 1996, p.327). Thus, self-perceptions play a key role in social maladjustment.

More recently, it has been suggested that inflated high self-perceptions may also lead to negative outcomes. Baumeister, Smart, and Boden (1996) believe that one of the main sources of violence is an inflated self-concept that is confronted with disconfirming evidence. Cairns and Cairns (1994) suggest that when a person is confronted with negative feedback from the social environment, cognitions about the self will be biased towards maintaining integration and reducing stress. Self-verification theory is based on the premise that people resist change to

their self-concepts (Swann, 1987). Baumeister et al. (1996) suggest that when individuals are confronted with positive feedback that coincides with positive self-concepts, they will be receptive. However, when individuals are confronted with negative information they will resist change. These researchers believe that the discrepancy between an individual's overly high self-concept and unfavourable feedback predicts violent outcomes. Only recently has the relation between self-perceptions and aggression been examined; however, results seem to support a significant relation between aggression and inflated self-perceptions (Cairns & Cairns, 1994; Crick & Grotpeter, 1995; Hughes, Cavell, & Grossman, 1997; Hymel, Bowker, & Woody, 1993; Lochman & Dodge, 1994; Patterson, Kupersmidt, & Griesler, 1990; Zariski & Coie, 1996).

In summary, a review of the research seems to suggest that the self-concept is a multidimensional construct that is stable and enduring yet flexible to environmental changes. There does appear to be gender differences in the levels of self-perceptions reported; however, the gender effects appear to be small. During the early years, parents seem to play an important and influential role in their child's sense of self, until the influence of peers overtakes that of parents during adolescence. Finally, self-perceptions have been shown to be predictive of internalizing disorders such as depression and mood disorders, whereas, inaccurate high self-perceptions seem to be predictive of externalizing disorders, such as aggression.

Self-Perceptions and Aggression

Definition of Aggression

Aggression is defined as a behavior that is perceived negatively by the victim, and the behavior must be intentional, where the aggressor is described as desirous of hurting or destroying the victim physically or psychologically (Galen & Underwood, 1997). Two forms of

aggression that fulfill this criteria are physical and relational aggression.

Physical aggression is typically directed towards others outside of the aggressor's peer group and includes behaviors such as hitting, kicking, or punching (Baumeister et al., 1996). Physical aggression has been found to be stable from childhood to young adulthood, and Parke and Slaby (1983) suggest that it is as stable as intelligence (Cairns, Cairns, Neckerman, Ferguson, & Gariepy, 1989; Graham & Juvonen, 1998). In general, physical aggression is found more commonly among boys than girls (Crick & Grotpeter, 1995; Galen & Underwood, 1997).

A form of aggression that girls have been found to engage in is relational aggression (Crick & Grotpeter, 1995). Relational aggression is typically expressed within a friendship or social group and is characterized by behaviors that harm peers through purposeful manipulation and damage of peer relationships (Crick & Grotpeter, 1995). Relationally aggressive behaviors may include: ignoring a peer, telling a friend they will stop liking them unless the friends do what they say, trying to keep certain people from being in their group when it's time to play or do an activity, or trying to make other kids not like a person by spreading rumors about them (Crick & Grotpeter, 1995).

According to both teacher and peer reports, children as young as three years old, have been found to engage in relationally aggressive behaviors (Crick, Casas, & Mosher, 1997). To date, the majority of research in the area of relational aggression has focused on the middle childhood period (Crick, Bigbee, & Howes, 1996; Crick & Grotpeter, 1995, 1996; Grotpeter & Crick, 1996; Rys & Bear, 1997). For the middle childhood period, relational and physical aggression have been found to form relatively distinct constructs (Crick & Grotpeter, 1996). Relational aggression has also been found to be stable over a six month period during middle

childhood (Crick, 1996). Finally, both boys and girls have been found to engage in relationally aggressive behaviors.

It is not clear in the literature, whether gender differences exist for the number of nominations of relational aggression that children engage in. When boys and girls, in grades three through six, were compared on the number of nominations they received for relational aggression, Crick and Grotpeter (1995) reported that girls were more relationally aggressive than boys. However, in a sample of third and sixth grade children, Rys and Bear (1997) did not find that girls were more relationally aggressive than boys. There is also some inconsistency in the gender differences reported once aggressive groups are identified. For example, Crick et al. (in press) and Rys and Bear (1997) reported that girls were more often included in a relationally aggressive group, compared to boys. In contrast, in a pre-adolescent sample ($M_{age} = 13$ years old), Schoenfeld (1999) did not find any significant differences in the number of boys and girls who were categorized into a relationally aggressive group. In addition, Tomada and Schneider (1997) conducted a study with third and fourth grade Italian children and found that more boys were included in a relationally aggressive group than girls. It is important to note that this finding may actually be predictive of differences in the expression of relational aggression within a particular culture (i.e., Italian). In an attempt to add some clarity to the issue of gender differences in relational aggression, one of the purposes of the present study was to compare the number of nominations for relational aggression that boys and girls engaged in. In addition, the observed frequencies for the relational group were examined to determine if girls were identified as relational aggressors more than boys.

Self-Perceptions of Physically Aggressive Children

A societal held belief is that physically aggressive children report low evaluations of their competence and general self-worth; however, this is incorrect. Despite the fact that physically aggressive children have lower levels of general popularity and likeability, they do not perceive themselves in a negative light (Pierce & Cohen, 1995). In fact, physically aggressive children perceive themselves in a positive light and report overly positive self-perceptions, particularly when compared to how teachers and peers perceive them (Cairns & Cairns, 1994; Hymel et al., 1993; Lochman & Dodge, 1994).

Using a multidimensional self-concept measure, Hymel et al. (1993) examined the self-perceptions of physically aggressive fourth and fifth grade children. Aggressive children were identified by classmates, who nominated same sex peers for aggressive behaviors. Children whose scores were half a standard deviation above the mean, were considered aggressive. The researchers found that physically aggressive children overestimated their competence in academics, athletics, peer relations, and appearance, compared to average children.

Lochman and Dodge (1994), using the Perceived Competence Measure for Children (Harter, 1982), examined self-perceptions among physically aggressive boys in the seventh grade. Teachers were asked to fill out behavioral checklists, so that aggressive and nonaggressive children could be identified. These researchers found that aggressive children reported high perceived social competence and judgments of global self-worth, compared to nonaggressive children.

Finally, Cairns and Cairns (1994) conducted a study examining self-concepts of highly aggressive boys and girls in grades four through twelve. Highly aggressive children perceived

themselves as more popular, intelligent, friendly, and socially competent, compared to teacher and peer evaluations. Interestingly, aggressive children also viewed themselves as less aggressive compared to how their peers and teachers perceived them.

Given the above mentioned results, research is needed to further validate these findings and examine some of the possible causes of high self-perceptions among physically aggressive children. Cairns and Cairns (1994) suggest that aggressive children construct their own reality as a defense mechanism against the negative feedback they receive from peers, teachers, and parents, regarding their maladjusted behavior. Similarly, Hughes et al. (1997), believe that the distorted self-perceptions that aggressive children display reflect a bias in social reasoning processes. This cognitive bias may interfere with the ability of aggressive children to learn from past experiences or equally important, the motivation to change their maladaptive behavior. The biased self-views of aggressive children are thought to interfere with children's ability to recognize the negative impact of their behavior upon their victims (Graham & Junonen, 1998).

Baumeister and colleagues (1996) postulate that high self-perceptions reported by aggressive children are predictive of violence. These researchers believe the long held belief that low self-perceptions lead to violence is unfounded and at the very least nonsensical. They argue that signs of low self-esteem or self-worth are rarely found among tyrants, career criminals, and psychopaths. In a review of research on violent criminals, Baumeister et al. (1996) found that typical self-defining statements made by criminals involved a belief of superiority, not inferiority. In fact, aggressive criminals are often characterized as arrogant, confident, egotistical, and proud. The researchers believe that when an aggressive person's high self-perceptions are threatened by external disconfirming evidence (e.g., rejection by peers)

aggressive individuals will adopt a defensive position in order to protect themselves against attacks. Furthermore, when a person's favorable views about oneself are questioned, challenged or put in jeopardy, the individual will most likely react in a violent manner towards the source of threat (Baumeister et al., 1996).

Given the potentially harmful effects of high self-perceptions among physically aggressive children and the paucity of research addressing this issue, one of the focuses of the present study was to examine self-perceptions of physically aggressive children across a variety of domains. It is important to note that the majority of past studies on the self-perceptions of physically aggressive children have only included males (Boulton & Smith, 1994; Hughes et al., 1997; Lochman & Dodge, 1994; Lochman, 1987). Therefore, results regarding the high self-perceptions of physically aggressive children may only be applicable to boys. Consistent with past research, the self-perceptions of physically aggressive boys will be assessed so that comparisons can be made with other relevant studies. Girls have not been found to engage in physical aggression as frequently as boys; therefore, it is usually more difficult to obtain a sample of physically aggressive girls large enough to conduct quantitative analyses. In the present study, girls will be included in analyses if there is an adequate sample size.

Self-Perceptions of Relationally Aggressive Children

Since researchers have only recently begun to investigate relationally aggressive behaviors, little research has been directed towards examining the self-perceptions of relational aggressors. To date, Crick and Grotpeter (1995) are the sole researchers who have examined perceived competencies of elementary school relationally aggressive children (i.e., grades 3 to 6). Using a measure that assessed children's perceptions of peer relations within the classroom,

Crick and Grotpeter (1995) found that relationally aggressive girls perceived themselves to be poorly accepted by their peers. Interestingly, relationally aggressive boys did not report significantly lower perceptions of peer acceptance (Crick & Grotpeter, 1995).

The research findings of Crick and Grotpeter (1995) are consistent with their more recent research (Crick et al.'s, 1997) which demonstrated that relational aggression was related to high levels of peer acceptance for boys but not girls. Girls may be experiencing more adverse consequences related to relational aggression because they generally have dense friendship networks (Björkqvist, Österman, & Kaukiainen, 1992), allowing for immediate repercussions (i.e., rejection from their friends). For boys, their friendships are not as closely connected as girls so they may not receive immediate negative feedback and are buffered by the negative effects of their actions (Wellman & Crick, 1998). Research also shows that peers are much less accepting of aggression in girls than boys; therefore, peers may be more verbal in their disapproval of girls' aggressive behavior compared to boys and this disapproval may directly impact aggressive girls' self-perceptions and judgements of global self-worth (Crick et al., 1996).

Recently, Schoenfeld (1999) conducted a study on the self-perceptions of pre-adolescent children (i.e., grade 7 and 8). One purpose of the study was to compare the perceived competencies of the relationally aggressive group with a nonaggressive and a prosocial group. For this pre-adolescent sample, the perceived competencies of the relationally aggressive group did not differ significantly from the nonaggressive or prosocial groups. These results suggest that for the pre-adolescent sample, perceived competencies did not differ as a function of whether they engaged in relational aggression, no aggression or prosocial behavior.

Since, Crick and Grotpeter (1995) are the sole researchers to examine self-perceptions of

peer acceptance among elementary school relationally aggressive children, further research is needed to confirm their research findings. Moreover, Crick and Grotpeter (1995) only assessed self-perceptions related to peer acceptance, and in light of Schoenfeld's (1999) research, it is quite possible that negative perceptions do not carry over into other domains (i.e., behavioral conduct, global self-worth, physical appearance, athletic competence, scholastic competence). Based on Crick and Grotpeter's (1995) research it was hypothesized that relationally aggressive girls would report low to moderate self-perceptions compared to nonaggressive girls (Crick & Grotpeter, 1995). Boys will also be included in the analysis if sample sizes are large enough to allow for adequate analysis. Based on the results of past research (Crick and Grotpeter, 1995), it was hypothesized that relationally aggressive boys would not report low self-perceptions, compared to nonaggressive boys.

Self-Perceptions of Rejected Aggressive Children

Being rejected or disliked by one's peers has been found to be one of the strongest predictors of both internalizing and externalizing disorders, such as, depression, loneliness, and delinquency (Boivin, et al., 1994; Coie, Lochman, Terry, & Hyman, 1992; Hymel et al., 1990). Coie and Dodge (1983) conducted a longitudinal study that involved tracking rejected children over a five year period. After the first year, 45% of the rejected children remained rejected. After three years, the rate of rejection dropped slightly to 34% and after four years it dropped to 30%. Thus, being rejected by one's peers can result in serious negative consequences for the child, both short and long-term.

It has been argued that the outcome of rejection differs for aggressive children compared to nonaggressive children (Zakriski, Jacobs, & Coie, 1997). Unlike the rejected nonaggressive

child who reports negative perceptions of self, the rejected aggressive child reports rather positive self-perceptions (Boivin & Begin, 1989; Patterson et al., 1990; Zariski & Coie, 1996). The experience of being rejected appears to differ for aggressive children, compared to nonaggressive children. It appears as though rejected nonaggressive children experience more negative outcomes and experience rejection as more stressful (Boivin & Begin, 1989; Boivin et al., 1994)

In a study of rejection status, Boivin and Begin (1989) used Harter's (1983) perceived competence measure to assess both domain specific self-perceptions and global self worth. The researchers found that approximately half of the rejected children reported negative self-perceptions in all six competence domains, as well as global self-worth. However, the other half of these rejected children reported relatively high self-perceptions, compared to average children. In an attempt to explain the rather conflicting results of rejected children's self-perceptions, the researchers hypothesized that behavioral distinctions accounted for the differing results.

Consistent with Boivin and Begin's (1989) hypothesis, research thus far has shown that rejected physically aggressive children report rather positive self-perceptions, compared to rejected nonaggressive children. Zariski and Coie (1996) questioned rejected aggressive and rejected nonaggressive boys and girls in the fourth grade, regarding their perceptions of social acceptance (i.e., Who really likes you? , Who really dislikes you?). In identifying the aggressive children, the researchers asked classmates to nominate children who engaged in certain aggressive acts (e.g., starts fights). The rejection status of aggressive children was determined by the number of nominations children received for being disliked. The researchers found that

rejected physically aggressive children, compared to rejected nonaggressive children, were less likely to acknowledge their social difficulties. It should be noted that a more lenient cutoff score was used for both aggression status (i.e., half a standard deviation above the mean compared to the more traditional cutoff criterion of one standard deviation above the mean) and rejection status (.8 standard deviation cutoff criterion compared to the more traditional criterion of one standard deviation). Thus, even when a less extreme group of rejected aggressive children were identified, self-perceptions were overestimated.

Patterson et al. (1990), using Harter's (1985) perceived competence measure, reported that rejected physically aggressive children (grades three and four) tended to overestimate their behavioral competence compared to teacher evaluations. In addition, rejected aggressive children reported higher levels of social acceptance compared to the number of nominations they received for being liked by classmates. In contrast, rejected nonaggressive children tended to provide accurate self-evaluations of their behavior. Thus, rejected physically aggressive children seem to be unaware of their negative behavior since they are reporting overly positive self-perceptions.

Recently, Hughes et al. (1997) conducted a research study to see if the inflated self-perceptions of aggressive children occurred for both rejected and nonrejected aggressive children. According to Hughes et al., if inflated self-perceptions were reported by rejected aggressive children and not by nonrejected aggressive children, then inflated self-perceptions would be a specific characteristic of rejected aggressive children. Hughes et al. (1997) tested their hypothesis with participants in the second and third grade. The researchers defined an aggressive person as someone who picks on other children, starts fights, teases, tells mean lies

about others, or excludes others from their group (Hughes et al., 1997). Teachers were asked to pick children in the class that displayed aggressive behaviors and children who met a description of a typical or average child (labeled nonaggressive). Once children were identified as either aggressive or average, no further criterion for inclusion in a particular group was employed. A measure developed for use with young children was employed to assess cognitive competence, physical competence, peer acceptance, and maternal acceptance of both aggressive and nonaggressive children (Harter & Pike, 1984).

Interestingly, Hughes et al. (1997) found that inflated self-perceptions were related to aggression and not whether the aggressive child was rejected or not. Specifically, rejected aggressive children and nonrejected aggressive children scored overly high on their perceived maternal acceptance and physical competence. For cognitive competence and social acceptance, moderate levels were reported for both rejected aggressive children and nonrejected aggressive children. Hughes and colleagues were the first to investigate whether self-perceptions of aggressive children differed as a function of rejection versus nonrejection status.

One of the purposes of the present study was to replicate these results with older participants (i.e., grade 4, 5 and 6), who were nominated as aggressive by their peers. It should be noted that the research by Hughes et al. (1997) confounded physical and relational aggression (e.g., "starts fights", is an item that typically measures physical aggression and "excludes others from their group", typically measures relational aggression; Crick & Grotpeter, 1995). In the present study, physical aggression will be assessed separately from relational aggression, since past research has shown that they are two distinct forms of aggression leading to different outcomes (Crick & Grotpeter, 1995).

Similar to physically aggressive children, relationally aggressive children are rejected by their peers. Using a measure of relational aggression, Crick et al. (1997) found that for children as young as 3 years old, relational aggression was predictive of peer rejection. In addition, Crick and Grotpeter (1995) conducted a study with participants who were in grades 3 to 6 and found that relationally aggressive children were rated as more disliked than nonaggressive children. In fact, relational aggression was related to peer rejection and poor peer acceptance over and above the variance accounted for by overt (physical and verbal) aggression. In a population of young adults, Wellman and Crick (1998) found that relational aggression was related to peer rejection and negative relationships.

With the exception of Hughes et al.'s (1997) study that confounded physical and relational aggression, the relation between rejection status and the self-perceptions of relationally aggressive children has not been examined. Since research has not shown otherwise, it was hypothesized that similar to physically aggressive children, the self-perceptions of relationally aggressive children would not differ as a function of rejection versus nonrejection status.

Purpose of the Present Study

There were three specific issues in the present study: 1) gender differences in self-perceptions and aggressive behavior, 2) self-perceptions of aggressive (i.e., physically, relationally, physically/relationally) and nonaggressive children, and 3) self-perceptions of rejected and nonrejected aggressive children (i.e., physically, relationally, physically/relationally). Specific hypothesis related to these issues will be discussed below.

Gender Differences and Self-Perceptions

Previous research involving multidimensional measures of self-perceptions have consistently shown that boys and girls differ in terms of athletic competence and physical appearance, with boys consistently reporting higher self-perceptions (Callaghan & Joseph, 1995; Granlese & Joseph, 1993; Harter, 1989; Marsh et al., 1983, 1984). In the present study it was hypothesized that similar results would be found.

Gender Differences and Aggression

Gender differences on the number of nominations for aggression. One of the purposes of the present study was to examine possible gender differences, in the overall sample, on the number of nominations for physical and relational aggression. The research clearly supports gender differences on the nominations for physical aggression; with boys more physically aggressive than girls (Crick & Grotpeter, 1995; Tomada & Schneider, 1997). As previously mentioned, when examining gender differences on the nominations for relational aggression, the results are inconsistent. In the present study, it was of interest to compare boys and girls to determine whether they differed on nominations for relational aggression and physical aggression.

Gender differences in aggression groups. Once groups of aggressive children are identified, there is also some uncertainty as to whether more girls are identified as relationally aggressive than boys. Crick has asserted that girls are more often classified as relational aggressors than boys and has conducted a number of studies to support her claim (see Crick et al., in press, for review). However, some independent researchers have found dissimilar results (Schoenfeld, 1999; Tomada & Schneider, 1997). Given the contradictory results, one of the goals of the present study was to determine whether girls were more likely to be included in a

relationally aggressive group than boys.

Gender Differences, Aggression, and Self-Perceptions

It was also of interest to examine gender differences in the self-perceptions of aggressive children. Even though there may be differences in boys and girls in the level of self-perceptions they report and possibly in the type of aggression they engage in, aggressive boys and girls may report similar levels of self-perceptions. For example, the self-perceptions of relationally aggressive girls may be similar to the self-perceptions of relationally aggressive boys. It is important to note that this analysis will only be performed if the sample sizes of the male and female extreme aggression groups are large enough.

Self-Perceptions and Aggression

Physical aggression. Recent research has demonstrated that physically aggressive boys report high self-perceptions of their competencies (Hymel et al., 1993; Patterson et al., 1990). In the present study, it was hypothesized that physically aggressive boys would report higher self-perceptions and global self-worth, compared to nonaggressive boys. In contrast to boys, girls do not typically engage in physical aggression; therefore, girls are not usually available for study. In this study, girls will only be included in the analysis of physical aggression if sample sizes are large enough (Crick & Grotpeter, 1995).

Relational aggression. Past studies that have examined self-perceptions of highly aggressive children have mostly included boys, but not girls. It is suggested that these studies have been unsuccessful in studying self-perceptions of aggressive girls given the male stereotyped criteria used to define aggression (Boulton & Smith, 1994; Hughes et al., 1997; Lochman, 1987; Lochman & Dodge, 1994). In the present study, relational aggression was

included in order to assess the self-perceptions of aggressive girls. Consistent with past research, it was hypothesized that relationally aggressive girls would report moderate to low self-perceptions and global self-worth, compared to nonaggressive girls (Crick & Grotpeter, 1995). Boys will also be included in the analysis if sample sizes are large enough to allow for adequate analysis. Based on the results of past research (Crick and Grotpeter, 1995), it was hypothesized that relationally aggressive boys would not report low self-perceptions, compared to nonaggressive boys.

Physical/relational aggression. Past researchers that have assessed physical and relational aggression have found that some children were nominated as exhibiting high levels of both physical and relational aggression (Crick & Grotpeter, 1995; Delveaux, 1997). The results of past studies revealed that boys were typically nominated as physically/relationally aggressive more than girls (Crick & Grotpeter, 1995; Rys & Bear, 1997; Tomada & Schneider, 1997). Since the perceived competencies of physically/relationally aggressive children have not been assessed in past research, no specific hypothesis were conceived.

Self-Perceptions, Aggression, and Rejection

Physical aggression. Regardless of their social status (i.e., rejection, nonrejection), physically aggressive boys maintain a high perception of themselves (Boivin & Hymel, 1997; Zariski & Coie, 1996). Based on past research, it was hypothesized that rejected physically aggressive boys and nonrejected physically aggressive boys would report similarly high self-perceptions and judgements of global self-worth.

Relational aggression. To date, no research has focused on the self-perceptions of rejected and nonrejected relationally aggressive girls. Since there is no evidence to the contrary,

it was hypothesized that similar to physically aggressive children, the self-perceptions of relationally aggressive children would not differ as a function of rejection versus nonrejection status.

Physical/relational aggression. As previously mentioned, the perceived competencies of physically/relationally aggressive children have not been assessed in past research. Similar to the hypotheses for physical aggression and relational aggression, it was hypothesized that the self-perceptions of rejected and nonrejected physically/relationally aggressive children would not differ.

Method

Participants

Participants were in grades 4, 5, and 6 from four elementary schools in a mid-sized central city in Canada. A total of 507 children from 19 classrooms were asked to participate in the study (see Appendix A). Parental permission was granted for 389 children. The average consent rate by class for the consent forms was 77%, with a range between 57% and 100% among classes (see Appendix B for distributions). It is important to note that there were no significant differences in level of aggression (i.e., physical, relational) between children who participated in the study and those who did not.¹ Of the 389 children that participated in the

¹Children who filled out the Peer Nomination Measure were asked to think of anyone in their class who fit the description of items in the measure. Therefore, children who filled out the Peer Nomination Measure nominated both children who participated in the study and children who did not participate in the study. Two t-tests were performed to determine whether the subjects who participated in the study differed from the subjects who did not participate in the study, with respect to the number of nominations for aggression (i.e., physical, relational). The t-tests for physical aggression, $t(505) = .65$, $p > .05$, ($M = -.01$, $.04$, participants, nonparticipants; respectively) and relational aggression, $t(505) = -.178$, $p > .05$, ($M = .03$, $-.10$, participants, nonparticipants; respectively) were not significant.

study, 359 filled out the Self-Perception Profile for Children (Harter, 1985). Additionally, two multivariate outliers were deleted from the study, resulting in 357 (176 boys, 181 girls) children whose responses were included in subsequent analyses.² The children ranged in age from 9 to 12 years old, with an average age of 10 years. Participants were of middle to lower-middle class background. The treatment of the participants was in accordance with the ethical standards of CPA.

Measures

The present study was part of a larger study designed to examine self-perceptions, goals and strategies, rejection sensitivity, and friendship networks among physically and relationally aggressive children and their peers.

In the present study, three measures assessing behavioral styles, rejection status, and self-perceptions were used to assess self-perceptions of physically and relationally aggressive children. The three measures were the Peer Nomination Measure (adapted from Crick & Grotpeter, 1995; Delveaux, 1997), Sociometric Nominations (Coie, Dodge, Coppotelli, 1982) and the Self-Perception Profile for Children (Harter, 1985).

Peer Nomination Measure (adapted from Crick & Grotpeter, 1995; Delveaux, 1997)

This measure was used to determine children's overall behavioral styles, as assessed by peers. It was presented in the form of a "class play" which is an assessment that requires children to pretend they are casting one another for a play (Bower & Lambert, 1961). Parker and

² Questionnaires were inspected for unusual response patterns. Inspection of the questionnaires revealed that both participants who were identified as multivariate outliers were responding in a deviant manner (e.g., atypical pattern responses) and as a result were not included in subsequent analyses (Tabachnick & Fidell, 1996)

Asher (1987) suggest that the basic assumption of the “class play” assessment, is that the roles chosen by classmates typically reveal how the classmates perceives a child.

Children were asked to list up to three people in the class who would be best to play certain roles or characters in a play. The class play consisted of 20 items measuring behavioral roles: 10 items referred to physically aggressive behaviors and 10 items referred to relationally aggressive behaviors (see Appendix C). The number of nominations that children received were summed for each item and then standardized within each classroom (since class size varied). The standardized scores for the items of each subscale were then summed to obtain a total score for the physical aggression scale and relational aggression scale (Crick et al., 1997).

Crick and Grotpeter (1995) demonstrated good inter-item reliability for a similar measure of overt and relational aggression ($\alpha = .94, .83$, for overt aggression and relational aggression, respectively). In addition, Crick (1996) reported that children's peer-assessed overt and relational aggression scores were relatively stable over a six month period (boys' overt aggression: $r = .78, p < .001$; boys' relational aggression: $r = .56, p < .001$; girls' overt aggression: $r = .68, p < .001$; girls' relational aggression: $r = .68, p < .001$). Finally, there is some evidence of predictive validity, with relational and overt aggression predicting social maladjustment (i.e., peer rejection; Crick & Grotpeter, 1995; Tomada & Schneider, 1997). For Crick and Grotpeter's (1995) measure, overt aggression was measured by three items which assessed behaviour such as: hitting or pushing others and yelling or calling others names. Relational aggression was measured by five items which assessed behaviour such as: telling a friend they would stop liking them if they didn't do what they said, or trying to keep certain people from being in a group.

Delveaux (1997) modified Crick and Grotpeter's (1995) scale by omitting one item (i.e., tries to make other kids not like a certain person by telling rumors or mean lies about that person) from the relational aggression scale and by omitting the verbal aggression item on the overt aggression scale. The relational aggression item that Delveaux omitted from the measure was found to cross load with overt aggression (Crick & Grotpeter, 1995). Delveaux (1997) replaced the omitted item with the item, "when they are mad at a person, they start being friends with someone else to get back at the person". As hypothesized, factor analysis of the altered items formed two separate factors: physical aggression and relational aggression. Factor loadings ranged from .696 to .937, and good inter-item reliability was demonstrated for both scales ($\alpha = .96, .87$, for physical aggression and relational aggression, respectively; Delveaux, 1997).

In the present study, the physical and relational aggression scales were adapted from Crick and Grotpeter's (1995) and Delveaux's (1997) measure. For physical aggression, two items from Crick and Grotpeter's measure were used in addition to eight other items. For relational aggression, three items from Crick and Grotpeter's measure and one item from Delveaux's measure were used, in addition to six other items. For both physical and relational aggression, all of the additional items have been used in other research studies assessing physical and relational aggression and have been found to load on their respective scales (e.g., Crick et al., 1996, 1997; Crick & Grotpeter, 1996; Delveaux, Daniels, & Cyde, 1996; Dodge & Coie, 1987; Grotpeter & Crick, 1996; McNeilly-Choque, Hart, Robinson, Nelson, & Olsen, in press; Wellman & Crick, 1998). Slight modifications have been made to selected items (see Appendix C, for the complete list of physical and relational aggression items). For example, one item from

Crick and Grotpeter's (1995) measure asked children to nominate "someone who tells other kids that they will beat them up if they don't do what they say". This item is included in the present study, in addition to another item that closely resembles this item: "someone who, when other kids pick on them, they try to beat those kids up". Factor analysis was conducted to ensure that the items added for this study loaded onto two separate factors, physical and relational aggression, and are reported in the results section.

Classification of Children into Behavioral Groups

Children's physical aggression and relational aggression scores were used to classify children into four different groups: physical aggressors, relational aggressors, physical/relational aggressors, and nonaggressors. A cutoff of half a standard deviation above the mean was used for classification of the children into aggressive groups (i.e., physical, relational, physical/relational). Using half a standard deviation cutoff is not unprecedented in research on aggression. Zakriski and Coie (1996) and Hymel et al. (1993) used half a standard deviation cutoff to classify physically aggressive children. As well, Crick (1995) classified children as relationally aggressive and physically/relationally aggressive using half a standard deviation above the mean as the criterion. For the purpose of the present study, children with scores greater than half a standard deviation above the mean on physical aggression but less than half a standard deviation above the mean on relational aggression, were considered physically aggressive. Children were classified as relationally aggressive if their scores were greater than half a standard deviation above the mean on relational aggression and less than half a standard deviation above the mean on physical aggression. Children were classified as physically/relationally aggressive if their scores were greater than half a standard deviation

above the mean on both physical and relational aggression. Finally, consistent with past research, children with scores below the mean on both physical and relational aggression were classified as nonaggressive (Zakriski & Coie, 1996).

Sociometric Nominations

Two standard questions were used to assess children's rejection status (Coie et al., 1982). The items referred to children's level of acceptance within the peer group (i.e., children with whom they enjoy spending time versus those with whom they do not enjoy spending time). Using the algorithm outlined by Coie et al. (1982), nominations for the two items were summed for each participant, standardized within each classroom, and computed to identify rejected and nonrejected children. Half a standard deviation was used as criteria to identify rejected children, instead of the more traditional one standard deviation cutoff. The use of half a standard deviation for a criterion ensured that cell sizes were large enough to conduct multivariate analysis of variance on the scores of rejected and nonrejected aggressive and nonaggressive children. The use of a less stringent criteria (i.e., half a standard deviation versus one standard deviation) has been employed in past research related to rejection and aggression (Hymel et al., 1993; Terry & Coie, 1990; Zakriski & Coie, 1996). For example, Terry and Coie (1990) used a more lenient rejection cutoff (i.e., .8 standard deviation) than the traditional cutoff of one standard deviation, to assess childhood predictors of adolescent disorder. The researchers found that this cutoff was more effective in identifying future adjustment problems in children. Nonrejected children included all children who were not included in the rejected group, according to the procedure used by Hughes et al. (1997).

Self-Perception Profile for Children (Harter, 1985)

This measure was a self-report instrument that was designed to assess children's sense of competence across five domains (i.e., social acceptance, behavioral conduct, physical appearance, athletic competence, scholastic competence) and a global perception of self-worth (see Appendix D). Each sub-scale contained six items (36 items in total) that were scored on a four-point scale. Children were asked to read two sentences and decide which statement best described them (e.g., Some kids usually do the right thing BUT Other kids often don't do the right thing). Once the children made a decision they were asked to indicate whether the description was "really true" of them or "sort of true" of them. A score of one reflected low perceived competence and a score of four reflected high perceived competence.

One of the main criticisms of self-report measures is that children will respond in a socially desirable manner. According to Byrne (1996), social desirability is the tendency for subjects to respond in a socially approved manner. In addressing this concern, Harter's (1985) **Self-Perception Profile For Children**, uses a force choice format so that children will not respond in a socially desirable manner. Harter (1985) believes the effectiveness of this format lies in the implication that half of the kids view the world one way and the other half of the kids view the world the other way. Either choice the child makes is perceived as "normal", thereby limiting socially desirable responses. When constructing this measure Harter (1985) asked children to give verbal explanations of their responses. Based on the results, Harter concluded that children were capable of reporting accurate self-perceptions rather than socially desirable responses.

Moderately high internal consistency coefficients have been reported by Harter (1985) for a similar sample (i.e., grade 5 & 6) for the six self-perceptions ($\alpha = .82, .75, .81, .76, .73,$

.78, for scholastic competence, social acceptance, athletic competence, physical appearance, behavioral conduct, and global self-worth, respectively). An earlier and slightly different version of this scale has been found to have convergent, factorial, discriminate, and construct validity (Harter, 1982). In addition, relatively high test-retest reliabilities were reported after a three month and nine month period. (.69 to .87, Harter, 1982). This earlier version of the perceived competence scale for children did not include self-perceptions of physical appearance and behavioral conduct and a few of the subscale items have been changed in the revised scale (Harter, 1985).

Procedure

Trained senior undergraduate and graduate research assistants administered questionnaires in small groups of 20 to 30 students in a 60 minute interval, short enough to allow students to stay on task and long enough to answer the questionnaire thoroughly. The questionnaires were administered in a classroom setting to allow students to work in a familiar environment. All of the questions were read out loud by one of the researchers and children were asked to follow along on their own questionnaires, and then record their responses on the answer sheet provided. Children completed the questionnaires in February and March to ensure that students were more than half way through the year; therefore, very familiar with their peers. At the end of the study, children were debriefed regarding the purpose of the study (see Appendix E) and a debriefing letter was sent home to their parents (see Appendix F). Finally, since a high consent rate was necessary to ensure reliability of the Peer Nomination Measure, a small reward (i.e., pizza party) was offered to the classrooms that had the highest return rate of their consent forms, whether they received consent to participate or not.

Results

Data analyses were conducted in three stages: multivariate assumptions were evaluated, psychometric properties of the measures were assessed, and specific hypothesis of the study were tested.

Evaluation of Assumptions

Normality and Linearity

The assumption of normality was assessed by analysing frequency distributions for both skewness and kurtosis. Frequency distributions revealed that the self-perception variables were normally distributed. Frequency distributions were also examined to identify univariate and multivariate outliers in the data. The scores of two participants were identified as extreme univariate outliers (cases with standardized scores in excess of ± 3.00) on the self-perception dependent variables; consequently, the scores of these two subjects were changed to scores less deviant (i.e., raw score was changed to one unit larger than the next extreme score in the distribution; Tabachnick & Fidell, 1996). Multivariate outliers (cases with unusual combinations of two or more scores) were assessed using Mahalanobis' distance (the distance of a case from the mean of all variables). As previously mentioned, two additional participants were identified as multivariate outliers; therefore, they were not included in subsequent analyses (Tabachnick & Fidell, 1996). For the assumption of linearity, inspection of residual scatterplots and bivariate correlations revealed that the assumption was not violated.

Multicollinearity

Multicollinearity (correlations between variables of .90 and above) was checked with the use of a Pearson's correlation matrix and via the SPSS REGRESSION program. To assess

multicollinearity among the dependent variables, regression analysis was performed with each variable serving as a dependent variable while all other dependent variables served as independent variables. Thus, with six dependent variables in the study, six regression analyses were done. The results revealed that R^2 did not equal .90 or higher, therefore, multicollinearity was not present.

Homogeneity of Variance-Covariance Matrices

The assumption of homogeneity of variance-covariance matrices tests the null hypothesis that the observed covariance matrices of each of the dependent variables are equal across groups. Results of Box's M revealed that the null hypothesis should not be retained for all groups. Therefore, the Pitas-Bartlett Trace statistic was used to determine significance of all multivariate analysis of variance tests, since according to Stevens (1996), this statistic is quite robust against heterogeneous covariance matrices.

Psychometric Evaluation of Measures

Type of Aggression

To assess whether physical and relational aggression items loaded on two separate factors, a principal-components factor analysis with an oblique rotation was used on the data set ($N = 507$).³ An oblique rotation, which allows factors to correlate, was used since there was a significant bivariate correlation between physical and relational aggression ($r = .48$) that was higher than the criteria suggested for oblique rotation (i.e., $r = .32$; Tabachnick & Fidell, 1996). The analysis yielded two factors, physical aggression and relational aggression. The two factors

³As previously mentioned, children who filled out the Peer Nomination Measure nominated both children who participated in the study and children who did not participate in the study. Therefore, data was collected on 507 children for the Peer Nomination Measure.

accounted for 70.1% of the variance in the data set, with physical aggression accounting for 55.1% of the variance (eigenvalue = 11.02) and relational aggression accounting for 15.0% of the variance (eigenvalue = 2.99).

A factor loading of .234 was used as criteria to determine cross loading. This criterion was based on a procedure by Stevens (1996) that takes into account sample size and critical values for a simple correlation. All ten of the physical aggression items met the criteria for cross loading, thus, all items were included in the physical aggression measure. For relational aggression, there were five of the total ten items that did not meet the criteria for cross loading.

Of the five relational aggression items that did not meet the criteria for cross loading, four of the items loaded low on both aggression factors; therefore, the items were deleted from all subsequent analyses (i.e., tells kids they won't play with them if they don't do what they say, tells kids they can't be part of their group if they don't do what the group says, tells kids they won't be invited over to their house unless they do what they say, and threatens to tell secrets; see Table 1). The fifth item that did not meet the criteria for cross loading was retained for the measure of relational aggression, since the item loaded substantially higher on relational aggression than physical aggression (i.e., walks away or turns back when mad).

Thus, the physical aggression scale included 10 items and the relational aggression scale included six items. Factor loadings were moderately high for each scale ranging from .729 to .962 for the physical aggression scale and .659 to .858 for the relational aggression scale (see Table 1). The factor loadings obtained in the present study for physical and relational aggression were similar to factor loadings reported in previous research studies. For example, Crick and Grotpeter (1995) reported factor loadings ranging from .823 to .906 for overt aggression (i.e.,

Table 1
Factor Loadings (Oblique Rotation) for Type of Aggression (N = 507)*

Item	Factor loading	
	Physical aggression	Relational aggression
1. Hits, kicks, or pushes others.....	.944	-.051
2. When picked on they beat kids up.....	.962	-.095
3. When gets into fights blames others.....	.842	.050
4. Grabs things they want from others.....	.789	.115
5. When mad hits or pushes others.....	.943	-.040
6. Threatens to take other kids' stuff.....	.729	.157
7. When teased threaten to hit or push others.....	.861	.014
8. Threaten to beat kids up.....	.953	-.046
9. When angry they start fights with other kids.....	.940	-.045
10. Pushes/shoves other kids to do what they want.....	.917	.017
1. When mad starts being friends with someone else to get back at person.....	.158	.744
2. When not invited to a party gets back at kids by not inviting them to their party.....	.042	.707
3. When mad ignores or stops talking to people.....	-.175	.858
4. Tells kids they won't be friends with them if they don't do things their way.....	.193	.714
5. When mad gets even by keeping the person from being in their group of friends.....	.211	.659
6. Walks away or turns back when mad.....	-.297	.775
Items not included in further analyses		
1. Tells kids they won't play with them if they don't do what they say	.523	.401
2. Tells kids they can't be part of a group if they don't do what the group wants.....	.334	.574
3. Tells kids they won't be invited over to their house unless they don't do what they tell them.....	.359	.540
4. Threatens to tell secrets if they don't do what they say.....	.407	.552

* Children who filled out the Peer Nomination Measure were asked to nominate children who participated in the study and those who did not participate.

physical and verbal aggression) and .727 to .837 for relational aggression. As well, Delveaux (1997) reported factor loadings ranging from .905 to .936 for physical aggression and .696 to .844 for relational aggression. In the present study, relatively high internal consistency coefficients were obtained for the physical and relational aggression scales (i.e., $\alpha = .97, .86$, respectively), which is consistent with both Crick and Grotpeter (1995; $\alpha = .94, .83$ for overt and relational aggression, respectively) and Delveaux (1997; $\alpha = .96, .87$ for physical and relational aggression, respectively).

Correlations

In order to assess the relations among the variables in this study, correlation matrices were examined (see Table 2). Upon inspection of the correlation matrices, low to moderate relations were found. It is important to note that grade was not significantly related to type of aggression (i.e., physical, relational), self-perceptions or sociometric status at $p < .01$; therefore, grade was not included in subsequent analyses.

Hypotheses

As previously mentioned, there were three specific issues in the present study: 1) gender differences in self-perceptions and aggressive behavior, 2) self-perceptions of aggressive (i.e., physically, relationally, physically/relationally) and nonaggressive children, and 3) self-perceptions of rejected and nonrejected aggressive children (i.e., physically, relationally, physically/relationally).

To test the following hypotheses multivariate analyses of variance (MANOVA) and analysis of variance (ANOVA) were conducted, unless otherwise indicated, followed by univariate analyses of variance and Post Hoc testing (i.e., Bonferonni correction) where

Table 2
Intercorrelations Between Aggression Status and Dependent Variables (N = 357)

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Physical aggression		.48***	-.05	-.34***	-.14*	-.02	.23***	-.06	.05	-.18***	.58***
2. Relational aggression			.05	-.27***	-.09	-.11*	.09	-.01	.10	-.02	.43***
3. Social acceptance				.29***	.50***	.35***	.38***	.29***	.02	.27***	-.21***
4. Behavioral conduct					.49***	.30***	.03	.46***	-.11*	.18**	-.31***
5. Global self-worth						.67***	.30***	.41***	-.07	.11*	-.17**
6. Physical appearance							.34***	.26***	-.11*	.08	-.06
7. Athletic competence								.22***	.02	.07	.06
8. Scholastic competence									.03	.14**	-.06
9. Grade										.04	.05
10. Most liked											-.35***
11. Least liked											

* $p < .05$, ** $p < .01$, *** $p < .001$.

appropriate. SPSS MANOVA was used with the sequential method to adjust for nonorthogonality.

Gender Differences and Self-Perceptions

Self-Perceptions and Gender Differences (see Table 3)

A one-way MANOVA was conducted to determine whether boys and girls reported significant differences in their self-perceptions of social acceptance, behavioral conduct, global self-worth, physical appearance, athletic competence, and scholastic competence. Multivariate analysis of variance indicated that there was a significant main effect of gender, $F(6, 350) = 11.60, p < .001, \eta^2 = .17, \text{Power} = 1.0$. Univariate analysis indicated that the self-perceptions of boys and girls differed in terms of behavioral conduct, $F(1, 355) = 16.53, p < .001$, global self-worth, $F(1, 355) = 4.69, p < .05$, and athletic competence, $F(1, 355) = 28.81, p < .001$. Compared to boys, girls reported higher perceptions of behavioral conduct and global self-worth; whereas, boys reported higher levels of athletic competence than girls.

Gender Differences and Aggression

Gender differences on the nominations for aggression. To determine if boys and girls differed on the number of nominations for aggression they engaged in, a one way MANOVA was conducted. The results of the MANOVA were significant, $F(2, 354) = 50.22, p < .001, \eta^2 = .22, \text{Power} = 1.00$. Univariate analysis indicated that boys ($M = .30, SD = .99$) engaged in physical aggression significantly more than girls ($M = -.32, SD = .44$), $F(1, 355) = 60.16, p < .001$. Boys and girls did not differ in the mean level of relational aggression they engaged in.

Gender differences in aggression groups. To examine the relation between gender (male, female) and type of aggression (physical, relational, physical/relational) a 2 X 3 chi square test

Table 3

Means and Standard Deviations for Male and Female Self-Perceptions

Variable	Male ($n = 176$)		Female ($n = 181$)	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Social acceptance	2.94	.74	3.05	.66
Behavioral conduct	2.99*	.52	3.22*	.55
Global self-worth	3.18*	.59	3.32*	.59
Physical appearance	3.08	.59	3.02	.79
Athletic competence	3.13*	.65	2.74*	.72
Scholastic competence	2.98	.55	2.95	.64

* $p < .05$.

was performed. The chi square test was significant, indicating gender was not independent of aggression type, $\chi^2 (2, N = 119) = 49.01, p < .001$. The physical aggression group had more boys and less girls than expected ($z = 4.5, p < .001$; 24 boys observed and 14.1 expected versus 1 girl observed and 10.9 expected), the relational group had more girls and less boys than expected ($z = 6.9, p < .001$; 44 girls observed and 25.3 expected versus 14 boys observed and 32.7 expected) and the physical/relational group had more boys than girls expected ($z = 3.5, p < .001$; 29 boys observed and 20.3 expected versus 7 girls observed and 15.7 expected). Nonaggressive children were not included in the analysis; however, there was a fairly even distribution for boys and girls (77 boys versus 98 girls).

Based on the observed frequencies of the chi square test, boys and girls were also analyzed separately in subsequent analyses because of the significant unequal distribution of boys and girls across type of aggression. For example, only one girl was classified as physically aggressive and according to Tabachnick and Fidell (1996), there must be more cases than dependent variables for adequate power. Since the type of aggression children engaged in was confounded by gender, this resulted in an incomplete design.

Gender Differences, Aggression, and Self-Perceptions (see Table 4)

When analyses included aggressive children and their self-perceptions, analyses were conducted first for the set of socially related variables (i.e., social acceptance, behavioral conduct, global self-worth) followed by analyses for the nonsocial dependent variables (i.e., physical appearance, athletic competence, scholastic competence). The six self-perceptions were divided into two sets based on the following logic: 1) the dependent variables likely to differ as a function of aggression status, due to the theoretical relationship between the

Table 4

Means and Standard Deviations for the Self-Perceptions of Male and Female Aggressors

Variable	Male				Female			
	Relational aggressor ($\bar{n}$ = 14)		Physical/relational aggressor ($\bar{n}$ = 29)		Relational aggressor ($\bar{n}$ = 44)		Physical/relational aggressor ($\bar{n}$ = 7)	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Social acceptance	2.70	.95	3.00	.84	3.16	.62	2.72	.68
Behavioral conduct	3.12	.35	2.70	.45	3.10	.54	2.56	.40
Global self-worth	3.25	.48	3.09	.66	3.27	.63	2.90	.62
Physical appearance	2.86	.63	3.04	.62	2.87	.89	2.67	.61
Athletic competence	3.01	.79	3.30	.58	2.87	.78	2.87	.24
Scholastic competence	3.15	.55	2.90	.51	3.00	.60	2.83	.76

dependent variables (i.e., social acceptance, behavioral conduct and global self-worth) and the independent variable (i.e., aggression type) and based on significant results of based research (Crick & Grotpeter, 1995; Hymel et al., 1993; Lochman & Dodge, 1994; Patterson et al., 1990; Zariski & Coie, 1996) 2) those dependent variables (i.e., physical appearance, athletic competence, scholastic competence), based on past research that may differ based on aggression status (Cairns & Cairns, 1994; Hughes et al., 1997). By dividing the six self-perceptions into two sets, statistical analyses were more robust due to an increase in the number of cases per dependent variable (Stevens, 1996).

It is important to note that for the following analysis, only one girl was categorized as physically aggressive, therefore, physical aggression was not included in the analysis. A two way MANOVA was conducted to determine whether aggressive boys and girls (i.e., relational, physical/relational) differed in their perceptions of social acceptance, behavioral conduct, and global self-worth. The interaction was nonsignificant, $F(3, 88) = 1.18, p > .05, \eta^2 = .04$, Power = .31, indicating that male and female relational and physical/relational aggressors reported similar levels of social acceptance, behavioral conduct, and global self-worth. The main effect of aggression status was significant, $F(3, 88) = 5.30, p < .01, \eta^2 = .15$, Power = .92. Univariate analysis indicated that relational aggressors ($M = 3.11, SD = .50$) reported significantly higher self-perceptions of behavioral conduct, compared to physical/relational aggressors ($M = 2.63, SD = .44$), $F(1, 90) = 14.35, p < .001$. The main effect of gender was not significant, $F(3, 88) = .50, p > .05, \eta^2 = .02$, Power = .15.

For the self-perceptions of physical appearance, athletic competence, and scholastic competence, the interaction between aggression type and gender was also nonsignificant, $F(3,$

88) = .47, $p > .05$, $\eta^2 = .02$, Power = .14. Both the main effects of aggression, $F(3, 88) = 1.05$, $p > .05$, $\eta^2 = .03$, Power = .28 and gender, $F(3, 88) = .90$, $p > .05$, $\eta^2 = .03$, Power = .24, were nonsignificant.

The two nonsignificant interactions indicated that boys and girls demonstrated the same relationship between form of aggression and perceived competencies of social acceptance, behavioral conduct, global self-worth, physical appearance, athletic competence, and scholastic competence.

Even though it was of interest to examine gender differences in the self-perceptions of aggression groups across gender, it was also important to examine the self-perceptions of aggressive children within gender. For example, even though the self-perceptions did not differ when male and female relational aggressors were compared, female relational aggressors may differ from female nonaggressors; whereas, male relational aggressors may not differ from male nonaggressors. Thus, it is important to keep males and females separate for the following analyses, since the comparison group is different from the above analysis.

Analysis for Boys

Self-Perceptions and Aggression (see Table 5)

To assess the self-perceptions of aggressive and nonaggressive boys, a one way MANOVA was conducted. The independent variable was type of aggression (i.e., physical, relational, physical/relational, nonaggression) and the dependent variables were perceptions of social acceptance, behavioral conduct, and global self-worth. The MANOVA was significant, $F(9, 420) = 2.53$, $p < .01$, $\eta^2 = .05$, Power = .94. Interestingly, follow-up analysis indicated that physically/relationally aggressive boys reported significantly lower perceptions of behavioral

Table 5

Means and Standard Deviations for Male Aggression Status

Variable	Male aggression status							
	Physical aggressor (<i>n</i> = 24)		Relational aggressor (<i>n</i> = 14)		Physical/relational aggressor (<i>n</i> = 29)		Nonaggressor (<i>n</i> = 77)	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Social acceptance	2.83	.67	2.70	.95	3.00	.84	2.95	.73
Behavioral conduct	2.83	.56	3.12	.35	2.70*	.45	3.13*	.51
Global self-worth	3.08	.67	3.25	.48	3.09	.66	3.25	.57
Physical appearance	3.04	.77	2.86	.63	3.04	.62	3.12	.54
Athletic competence	3.15	.68	3.01	.79	3.30	.58	3.11	.64
Scholastic competence	2.88	.54	3.15	.55	2.90	.51	3.01	.58

**p* < .05.

conduct, compared to nonaggressive boys, $F(3, 140) = 6.45, p < .001$. The self-perceptions of social acceptance, behavioral conduct, and global self-worth, did not differ between physically aggressive, relationally aggressive, and nonaggressive boys.

For the dependent variables, physical appearance, athletic competence, and scholastic competence, a one way MANOVA was found to be nonsignificant, $F(4, 420) = .98, p > .05, \eta^2 = .02$, Power = .49.

Thus, compared to nonaggressive boys, physically/relationally aggressive boys reported low perceptions of behavioral conduct.⁴

Self-Perceptions and Rejection Status (see Table 6)

To determine whether it was appropriate to collapse the popular, neglected, controversial, and unclassified status groups into a nonrejected status group, frequency distributions were inspected (see Table 7). Inspection of the frequency distributions revealed that for boys, the frequencies were as follows: 27% popular, 25% neglected, 9% controversial, 13% unclassified. The popular, neglected, controversial, and unclassified groups were collapsed to form a nonrejected group.

A one way MANOVA was conducted to examine whether rejected boys reported lower levels of social acceptance, behavioral conduct, and global self-worth, compared to nonrejected boys. The results of the MANOVA were significant, $F(3, 172) = 5.33, p < .01, \eta^2 = .09$, Power

⁴ These results should be interpreted in light of the research findings that physical/relational aggressors received more nominations for physical aggression compared to physical aggressors, $t(51) = 3.14, p < .01, (M = 1.88, 1.15, \text{ for physical/relational aggressors and physical aggressors; respectively})$ and more nominations for relational aggression compared to relational aggressors, $t(41) = -2.46, p < .05, (M = 1.04, .70, \text{ for physical/relational aggressors and relational aggressors; respectively})$.

Table 6

Means and Standard Deviations for Rejected and Nonrejected Males

Variable	Rejected (n = 47)		Nonrejected (n = 129)	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Social acceptance	2.61*	.83	3.10*	.67
Behavioral conduct	2.84*	.51	3.04*	.52
Global self-worth	3.10	.67	3.23	.55
Physical appearance	3.00	.70	3.11	.55
Athletic competence	2.93	.81	3.20	.57
Scholastic competence	2.87	.57	3.02	.54

*p < .05.

Table 7

Frequency Distributions for Type of Aggression and Sociometric Status for Males and Females

Variable	Male	Female	Overall
Physical aggressor	n = 24^a	n = 1	n = 25
Total rejected	10^a	0	10
Total nonrejected	14^a	1	15
Popular	3	0	3
Neglected	6	0	6
Controversial	2	0	2
Unclassified	3	1	4
Relational aggressor	n = 14^a	n = 44^a	n = 58^a
Total rejected	2	12^a	14
Total nonrejected	12	32^a	44
Popular	4	13 ^a	17
Neglected	3	6	9
Controversial	2	3	5
Unclassified	3	10	13
Physical/relational aggressor	n = 29^a	n = 7^a	36^a
Total rejected	20^a	7	27
Total nonrejected	9^a	0	9
Popular	2	0	2
Neglected	0	0	0
Controversial	6	0	6
Unclassified	1	0	1

Note. The nonrejected group includes popular, neglected, controversial, and unclassified.

^aGroups that will be included in multivariate analysis of variance.

= .93. Follow up univariate analysis indicated that rejected boys reported significantly lower perceptions of social acceptance, $F(1, 174) = 13.26, p < .001$, and behavioral conduct, $F(1, 174) = 5.15, p < .05$, compared to nonrejected boys.

In contrast to the first set of self-perceptions, for the dependent variables, scholastic competence, athletic competence, and physical competence, a one way MANOVA was nonsignificant, $F(3, 172) = 2.50, p > .05, \eta^2 = .04, \text{Power} = .61$.

Thus, rejected and nonrejected boys differed in their perceptions of social acceptance and behavioral conduct, with rejected boys reporting lower perceptions than nonrejected boys. Rejected and nonrejected boys did not differ on their perceptions of global self-worth, scholastic competence, athletic competence, and physical competence.

Self-Perceptions, Aggression, and Rejection Status

For relational aggression, there were only two relationally aggressive boys that were rejected, which resulted in an incomplete design (see Table 7). Therefore, separate MANOVAs were conducted for each type of aggression, in order to assess the relation of aggression status and rejection status on self-perceptions

Self-perceptions, physical aggression, and rejection status (see Table 8)⁵. The nonrejected physically aggressive male group was composed of the following sociometric status breakdown: 13%, popular, 25% neglected, 8% controversial, and 13% unclassified. A one way MANOVA was conducted to assess the self-perceptions of rejected physical aggressors and

⁵A t-test indicated that rejected physical aggressors and nonrejected physical aggressors did not differ on the number of nominations they received for engaging in physical aggression, $t(22) = -1.02, p > .05, (M = 1.00, 1.25, \text{for rejected physical aggressors and nonrejected physical aggressors; respectively})$.

Table 8

Means and Standard Deviations for Male Physical Aggression Status and Rejection Status

Variable	Rejected physical aggressor ($n = 10$)		Nonrejected physical aggressor ($n = 14$)	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Social acceptance	2.47	.61	3.08	.61
Behavioral conduct	2.65	.47	2.95	.61
Global self-worth	2.92	.78	3.20	.58
Physical appearance	2.90	.83	3.15	.74
Athletic competence	2.83	.75	3.37	.55
Scholastic competence	2.77	.61	2.96	.49

nonrejected physical aggressors. The dependent variables were perceptions of social acceptance, behavioral conduct, and global self-worth. Multivariate analysis indicated that there was not a significant main effect, $F(3, 20) = 1.89, p > .05, \eta^2 = .22, \text{Power} = .42$.

For the dependent variables, physical appearance, athletic competence, and scholastic competence, the MANOVA was also found to be nonsignificant, $F(3, 20) = 1.50, p > .05, \eta^2 = .18, \text{Power} = .33$.

Thus, for both sets of perceived competencies, rejected physically aggressive and nonrejected physically aggressive boys did not differ significantly in their perceptions.

Self-perceptions, physical/relational aggression, and rejection status (see Table 9)⁶. The nonrejected physically/relationally aggressive male group was composed of the following sociometric status breakdown: 7%, popular, 0% neglected, 21% controversial, and 3% unclassified. A one way MANOVA was conducted to determine whether physically/relationally aggressive boys would report different levels of self-perceptions as a function of rejection status. For the self-perceptions of social acceptance, behavioral conduct, and global self-worth, the MANOVA was nonsignificant, $F(3, 25) = 1.12, p > .05, \eta^2 = .12, \text{Power} = .27$.

For the dependent variables, physical appearance, athletic competence, and scholastic competence, the MANOVA was also found to be nonsignificant, $F(3, 25) = 1.47, p > .05, \eta^2 = .15, \text{Power} = .34$.

⁶A t-test indicated that rejected physical/relational aggressors and nonrejected physical/relational aggressors did not differ on the number of nominations they received for engaging in physical aggression, $t(27) = .21, p > .05, (M = 1.91, 1.82 \text{ for rejected physical/relational aggressors and nonrejected physical/relational aggressors; respectively})$ and relational aggression, $t(27) = -.34, p > .05, (M = 1.02, 1.09 \text{ for rejected physical/relational aggressors and nonrejected physical/relational aggressors; respectively})$.

Table 9

Means and Standard Deviations for Male Physical/Relational Aggression Status and Rejection Status

Variable	Rejected physical/relational aggressor ($n = 20$)		Nonrejected physical/ relational aggressor ($n = 9$)	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Social acceptance	2.83	.81	3.37	.84
Behavioral conduct	2.70	.45	2.72	.48
Global self-worth	3.07	.65	3.15	.71
Physical appearance	3.01	.65	3.09	.58
Athletic competence	3.16	.64	3.61	.25
Scholastic competence	2.89	.51	2.91	.55

Similar to the results obtained for physically aggressive boys, the self-perceptions of physically/relationally aggressive boys did not differ as a function of whether they were rejected or not.

Levels of “Liked” and “Disliked” (see Table 10)

A one way MANOVA was conducted to determine whether the aggressive groups (physical, relational, physical/relational, nonaggressor) differed on the number of nominations received for “liked” and “disliked” (i.e., the measures of liked and disliked consisted of two items which were used for the sociometric status algorithm). Multivariate analysis was significant indicating that there were group differences, $F(6, 280) = 12.27, p < .001, \eta^2 = .21$, Power = 1.0. Results of univariate analyses indicated that the aggression groups differed only on the variable “disliked”, $F(3, 140) = 29.01, p < .001$. Follow up analysis revealed that physical aggressors were more disliked than nonaggressors. Physical/relational aggressors were more disliked than physical aggressors, relational aggressors and nonaggressors.

Analysis for Girls

Self-Perceptions and Aggression (see Table 11)

Since there was only one physically aggressive girl, the following analysis does not include physical aggression. A one way MANOVA was conducted to determine whether the aggressive groups (relational, physical/relational, nonaggressor) differed on perceptions of social acceptance, behavioral conduct, and global self-worth. The MANOVA was significant, $F(6, 290) = 4.20, p < .001, \eta^2 = .08$, Power = .98. Follow up analysis indicated that physically/relationally aggressive girls reported lower perceptions of behavioral conduct compared to nonaggressive girls, $F(2, 146) = 9.64, p < .001$.

Table 10

Means and Standard Deviations for Levels of “Like” and “Dislike” for Male Aggressors and Nonaggressors

Variable	Level of “like”			Level of “dislike”		
	<u>M</u>	<u>SD</u>	<u>n</u>	<u>M</u>	<u>SD</u>	<u>n</u>
Physical aggressor	-.39	.97	24	.66*	1.31	24
Relational aggressor	.47	1.08	14	-.01*	.76	14
Physical/relational aggressor	-.27	.86	29	1.40*	1.09	29
Nonaggressor	.10	1.03	77	-.30*	.60	77

* $p < .05$.

Table 11

Means and Standard Deviations for Female Aggression Status

Variable	Female aggression status					
	Relational aggressor ($\bar{n} = 44$)		Physical/relational aggressor ($\bar{n} = 7$)		Nonaggressor ($\bar{n} = 98$)	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Social acceptance	3.16	.62	2.72	.68	2.96	.69
Behavioral conduct	3.10	.54	2.56	.40	3.34	.50
Global self-worth	3.27	.63	2.90	.62	3.36	.55
Physical appearance	2.87	.89	2.67	.61	3.10	.70
Athletic competence	2.87	.78	2.87	.24	2.60	.69
Scholastic competence	3.00	.60	2.83	.76	2.99	.62

For the perceived competencies of physical appearance, athletic competence, and scholastic competence, the MANOVA was significant, $F(6, 290) = 2.55, p < .05, \eta^2 = .05$, Power = .84. However, after the Bonferonni correction was applied, the univariate results were no longer significant.

Thus, the only female aggressive group that reported low self-perceptions, was the physical/relational group who reported low perceptions of behavioral conduct.⁷

Self-Perceptions and Rejection Status (see Table 12)

The nonrejected female group was composed of the following sociometric status breakdown: 33%, popular, 27% neglected, 4% controversial, and 19% unclassified. A one way MANOVA was conducted to examine the dependent variables, social acceptance, behavioral conduct, and global self-worth, for rejected and nonrejected girls. The results of the MANOVA were significant, $F(3, 177) = 3.02, p < .05, \eta^2 = .05$, Power = .70. Follow up univariate analysis indicated that rejected girls reported significantly lower perceptions of behavioral conduct, compared to nonrejected girls, $F(1, 179) = 8.54, p < .01$.

For the perceived competencies of physical appearance, athletic competence, and scholastic competence, the MANOVA was nonsignificant, $F(3, 177) = 2.18, p > .05, \eta^2 = .04$, Power = .55; indicating that rejected girls did not differ from nonrejected girls on the second set of self-perceptions.

⁷ These results should be interpreted in light of the research finding that physical/relational aggressors received more nominations for relational aggression compared to relational aggressors, $t(49) = -3.34, p < .01, (M = 1.89, 1.04$, for physical/relational aggressors and relational aggressors; respectively).

Table 12

Means and Standard Deviations for Rejected and Nonrejected Females.

Variable	Rejected (n = 31)		Nonrejected (n = 150)	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Social acceptance	2.88	.74	3.08	.64
Behavioral conduct	3.00*	.61	3.27*	.52
Global self-worth	3.17	.72	3.35	.56
Physical appearance	2.91	.87	3.04	.64
Athletic competence	2.96	.63	2.69	.74
Scholastic competence	2.95	.62	3.00	.77

*p < .05.

Self-Perceptions, Aggression, and Rejection status

Inspection of the rejection status frequencies revealed that all of the physically/relationally aggressive girls were rejected (see Table 7). In addition, as previously mentioned, there was only one girl categorized as physically aggressive. Based on these two results, the analysis of aggression and rejection status only included relational aggression.

Self-perceptions, relational aggression, and rejection status (see Table 13)⁸. The nonrejected relationally aggressive female group was composed of the following sociometric status breakdown: 30% popular, 14% neglected, 7% controversial, and 23% unclassified. A one way MANOVA was conducted on the perceived competencies of social acceptance, behavioral conduct, and global self-worth, for rejected and nonrejected relational aggressors. The MANOVA was nonsignificant, $F(3, 40) = .45$, $p > .05$, $\eta^2 = .03$, Power = .13.

For the perceived competencies of physical appearance, athletic competence, and scholastic competence, the MANOVA was also found to be nonsignificant, $F(3, 40) = .52$, $p > .05$, $\eta^2 = .04$, Power = .15.

Therefore, both sets of self-perceptions did not differ for rejected relational aggressors, compared to nonrejected relational aggressors.

Levels of "Liked" and "Disliked" (see Table 14)

Due to an incomplete design (i.e., only one girl categorized as physically aggressive), physical aggression was not included in the following analysis. A one way MANOVA was

⁸ A t-test indicated that rejected relational aggressors and nonrejected relational aggressors did not differ on the number of nominations they received for engaging in relational aggression, $t(42) = .50$, $p > .05$, ($M = 1.11$, 1.01 for rejected relational aggressors and nonrejected relational aggressors; respectively).

Table 13

Means and Standard Deviations for Female Relational Aggression Status and Rejection Status

Variable	Rejected relational aggressor (n = 12)		Nonrejected relational aggressor (n = 32)	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Social acceptance	2.99	.65	3.22	.61
Behavioral conduct	3.08	.70	3.10	.49
Global self-worth	3.19	.78	3.30	.58
Physical appearance	2.94	.97	2.84	.87
Athletic competence	2.99	.75	2.82	.79
Scholastic competence	2.88	.54	3.05	.63

Table 14

Means and Standard Deviations for Levels of "Like" and "Dislike" for Female Aggressors and Nonaggressors

Variable	Level of "like"			Level of "dislike"		
	<u>M</u>	<u>SD</u>	<u>n</u>	<u>M</u>	<u>SD</u>	<u>n</u>
Relational aggressor	.17*	1.09	44	.13*	.85	44
Physical/relational aggressor	-.96*	.34	7	2.04*	.59	7
Nonaggressor	.12*	.95	98	-.45*	.51	98

* $p < .05$.

conducted to determine whether the aggressive groups (relational, physical/relational, nonaggressor) differed on the number of nominations received for “liked” and “disliked”.

Multivariate analysis was significant indicating that there were group differences, $F(4, 292) = 21.92, p < .001, \eta^2 = .23, \text{Power} = 1.0$. Univariate analyses were significant for both the variable “liked”, $F(2, 146) = 4.23, p < .05$ and “disliked”, $F(2, 146) = 56.99, p < .001$. Follow up analysis revealed that for the variable “liked” nonaggressors and relational aggressors were more liked than physical/relational aggressors. For the variable “disliked”, relational aggressors were more disliked than nonaggressors. Physical/relational aggressors were more disliked than relational aggressors and nonaggressors. Thus, physically/relationally aggressive girls were the most disliked group compared to relational aggressors and nonaggressors.

Discussion

Gender Differences

Self-Perceptions

A review of past research reveals that with the use of multidimensional measures, boys consistently reported higher levels of athletic competence and physical appearance (Callaghan & Joseph, 1995; Granleese & Joseph, 1993; Harter, 1989; Marsh et al., 1983; 1984). In the present study, boys reported that they were more athletically capable than girls. Contrary to the findings of past research (Callaghan & Joseph, 1995; Granleese & Joseph, 1993; Harter, 1989; Marsh et al., 1983; 1984), girls believed their behavior was more appropriate and reported more positive perceptions of their global self-worth, compared to boys. Thus, the self-perceptions of boys and girls did not differ in terms of social acceptance, academic competence and physical appearance. The research finding that girls reported higher levels of behavioral conduct and global self-worth, compared to boys, is not commonly found, but has been reported occasionally throughout the research (Burdett & Jensen, 1983; Harter, 1989; King et al., 1996).

The gender differences reported for behavioral conduct, athletic competence, and global self-worth lend support for the multidimensional construct of self-perceptions. It appears as though the children were able to differentiate among the different domain self-perceptions. Regardless of the fact that boys believed their behavior was not as appropriate as girls, boys did not generalize this negative self-perception to other domain specific self-perceptions. Similarly, girls reported significantly lower perceptions of their athletic competence, yet this self-perception did not influence other domain self-perceptions or their perceptions of global self-worth.

Nominations for Aggression and Aggression Groups

As previously noted, there is some question as to whether girls are more relationally aggressive than boys. The results of the present study suggested that boys and girls did not differ in the number of nominations they received for relational aggression, as assessed by peer nominations. Similarly, Rys and Bear (1997) and Schoenfeld (1999) found no differences between boys and girls in the number of nominations they received for engaging in relational aggression. The results of the present study did not support Crick and Grotpeter's (1995) claim, that girls receive more nominations for relational aggression, compared to boys. In light of these findings and past research findings (Rys & Bear, 1997; Schoenfeld, 1999; Tomada & Schneider, 1997) it is important that researchers continue to include boys in research focused on relational aggression. Consistent with past research, boys were found to be more physically aggressive than girls (Block, 1983).

Once aggressive children were identified and categorized into aggressive groups, the results revealed that boys were more often identified as physical aggressors and physical/relational aggressors than girls. Aggressive girls were more frequently categorized as relational aggressors compared to boys. Crick and Grotpeter (1995) and Rys and Bear (1997) also reported that boys were more often identified as physical aggressors and physical/relational aggressors, whereas, girls were more often identified as relational aggressors.

Thus, it seems as though boys and girls did not differ on the nominations for relational aggression, yet when aggression groups were created, girls were more often identified as relational aggressors compared to boys. One possible explanation for these differing results involves discussion of the physical/relational group. The gender distribution of the

physical/relational group mostly consisted of boys (i.e., 29 boys versus 7 girls). When boys and girls were compared on the number of nominations for relational aggression, male physical/relational aggressors would have been included in the analysis. However, once aggression groups were created, the subgroup of male physical/relational aggressors were identified and differentiated from relational aggressors. Thus, once male physical/relational aggressors were removed from the relationally aggressive group, it follows that gender differences would emerge.

Self-Perceptions and Aggression

A final gender issue concerned the self-perceptions of aggressive children. A comparison was done of the self-perceptions of aggressive boys and aggressive girls. There were no significant differences in the self-perceptions of relationally aggressive boys compared to relationally aggressive girls. In addition, there were also no differences in the perceived competencies of physically/relationally aggressive boys compared to physically/relationally aggressive girls. Comparison of physically aggressive boys and girls was not possible because of the lack of physically aggressive girls. In contrast to the gender differences obtained for the self-perceptions of the overall sample (i.e., behavioral conduct, athletic competence, global self-worth), there were no gender differences within the two subgroups of aggressive children that were examined.

Despite these findings, it is important to examine the self-perceptions of aggressive children within gender, because at this middle childhood period, children are associating with same sex peers (Daniels-Beirness, 1989). Thus, when children were asked to nominate the physically aggressive children in their class, they were more than likely comparing the boys with

each other and the same for girls. Similarly, one of the principles of social comparison theory is that children base their perceived competencies on people close to them (e.g., same sex friends; Festinger, 1954). It follows that even though there are no gender differences in the reported levels of self-perceptions of aggressive boys and girls, it does not diminish the possibility of significant differences occurring between aggressive groups when comparisons are made within gender. In addition, significant results obtained for one gender, does not necessary predict differences for the other gender.

Physically Aggressive Boys: Rejected and Nonrejected

In the present study, boys who engaged in physically aggressive behaviors, did not report low perceptions of social acceptance, behavioral conduct, global self-worth, physical appearance, athletic competence, and scholastic competence, compared to nonaggressive boys.

It is rather interesting that physically aggressive boys did not report lower behavioral competence. When a child engages in aggressive behavior it is deemed socially unacceptable by society on many different levels. Brofenbrennor's (1993) ecological model of the environment illustrates numerous sources of interacting influences in a child's life. In the aggressive child's immediate environment, parents and siblings provide feedback concerning the child's maladaptive behavior. Once the child begins school, peers and teachers reinforce the message that aggressive behavior is unacceptable. Society at large also plays a role in perpetuating the morals and values of parents and teachers. Thus, a child who engages in aggressive behavior, should undoubtedly learn that their behavior is considered unacceptable at all levels in society.

The research finding that physically aggressive boys did not report low perceptions of social acceptance is particularly interesting, since physically aggressive children received

significantly more nominations of being disliked, compared to their nonaggressive peers. In addition, when rejection status was examined, the subgroup of rejected physical aggressors also did not report low perceptions of social acceptance, compared to nonrejected physical aggressors. Thus, contrary to what one might expect, physically aggressive children were not reporting differences in their level of self-perceptions, dependent on their rejection or nonrejection status.

The finding that the presence or absence of rejection by peers does not influence the level of self-perceptions for physically aggressive boys is consistent with Hughes et al.'s (1997) research. These researchers conducted a study to see if the level of self-perceptions of aggressive children differed depending on whether they were rejected or not. They found that the level of self-perceptions were related to aggression and not whether the aggressive child was rejected or not. Specifically, rejected aggressive children and nonrejected aggressive children both reported similar levels of their perceived maternal acceptance and physical competence.

Hughes and colleagues were the first to investigate whether self-perceptions of aggressive children differed as a function of rejection versus nonrejection status. Thus, results of the present study lend support to the hypothesis that rejected and nonrejected aggressive children report similar levels of self-perceptions.

One possible explanation for why rejected physically aggressive children did not report low social acceptance perceptions is because even though they were rejected by classmates, they may be accepted by children outside of the classroom. Accordingly, aggressive children were not reporting inaccurate perceptions when they were asked to fill out the self-report measure, rather they may have been evaluating their level of social acceptance in relation to peers outside of school.

In fact, the perceived competencies measure, in the present study, did not ask children to reflect upon their social acceptance strictly within the classroom environment. Thus, aggressive children may be rejected by their classmates, however, friends or neighborhood peers, may not be providing negative feedback to the aggressive child. In this study, when aggressive children were asked questions about their social acceptance, it is quite possible they were answering in relation to their social acceptance outside of the classroom.

Interestingly, Wright, Giammarino, and Parad (1986) conducted a study to determine whether social rejection differed across groups. The researchers hypothesized that social status was a function of both individual and group characteristics. In their study, aggressive and nonaggressive children were observed while they engaged in activities with similar (e.g., aggressive child in an aggressive group) and dissimilar (e.g., aggressive child in a nonaggressive group) peers. As expected, the researchers found that when aggressive children interacted with a group of nonaggressive children, they were rated as disliked by the nonaggressive group. However, when aggressive children were interacting with an aggressive group they were not rejected, by the aggressive group. They suggested that when an individual interacts with a group in which their behavior is the norm, they are in accordance with the central tendency of the group. On the other hand, when an individual belongs to a group in which their behavior is deviant to the norm, they will be rejected.

Another possible explanation for why rejected aggressive children did not report low perceived competencies is because of unclear or lack of feedback about their disliked status. Perhaps the peer group is too frightened of the aggressive child to provide direct evidence of dislike (e.g., verbal disapproval). Evidence seems to suggest that rejected aggressive children are

generally not confronted about their behavior. Coie, Dodge, Terry, and Wright (1991) found that when nonaggressive boys interacted with rejected aggressive boys, they were more likely to retreat than stand up for themselves. In addition, aggressive children have been shown to receive high rates of reinforcement for their negative behavior (Patterson, 1982).

Rejected aggressive children may also not be reporting lower levels of social acceptance because of the support of a few close friends. Boivin, Cote, and Dion (1991) found that 55% of the rejected aggressive children in their study had two or more relationships and 10% had four or more relationships. Thus, even though aggressive children are rejected by the larger social group, they may be receiving positive feedback from a few close friends. Menesini (1997) suggests that having a best friend in or out of the classroom is an important index of social and personal adjustment. Cairns, Cairns, Neckerman, Gest, and Gariepy (1988) conducted a study with aggressive 10 to 13 year old children and found that, "Even though highly aggressive children and adolescents were less popular than control subjects in the social network at large, they were equally often identified as being nuclear members of social clusters" (p. 815).

It is interesting to note, in the present study, when aggression status was not considered, rejected boys reported lower levels of social acceptance and behavioral conduct. Thus, rejected boys accurately perceived their peer's disapproval; however, once the subgroup of rejected aggressive boys were identified, low levels of social acceptance and behavior conduct disappeared. It appears as though rejected boys accurately perceived their social rejection, whereas, rejected aggressive boys did not.

In summary, physically aggressive boys reported self-perceptions that were comparable to nonaggressive children. In addition, rejected and nonrejected physically aggressive boys reported

similar levels of self-perceptions. These findings taken together, suggest that aggression status is the factor related to the moderate level of self-perceptions reported by physically aggressive boys, not rejection status. That is, once aggression status is taken into consideration, rejection status does not further influence self-perceptions.

Relationally Aggressive Boys

Relationally aggressive boys did not report low self-perceptions, compared to nonaggressive boys. These research findings are not particularly surprising given the results of Crick et al.'s (1997) and McNeilly-Choque et al.'s (in press) research which demonstrated that relational aggression was related to high levels of peer acceptance for boys. Interestingly, results from the present study indicated that relationally aggressive boys were not disliked more than nonaggressive boys. This outcome contrasts the finding that relationally aggressive girls were significantly more disliked than nonaggressive girls. In fact, a comparison of the percentage of male and female relational aggressors who were rejected by their peers, indicated that twice as many relationally aggressive girls were rejected compared to relationally aggressive boys (i.e., 27% for girls, 14% for boys).

Since relational aggression is a non-normative form of aggression for boys, perhaps children are not as sensitive to the presence of relational aggression in boys compared to girls (Crick et al., 1996). Crick et al. (1996) conducted a study with third through sixth-grade children and found that boys were significantly more likely to report the presence of physical aggression in girls; whereas, girls were more likely to report relational aggression within their own gender. Neither gender was more likely to identify relational aggression in boys than girls. In the present study, girls were three times more likely to be nominated as relational aggressors compared to

boys (i.e., 44 girls versus 14 boys). Given that boys are nominated as being relationally aggressive less frequently than girls, perhaps children are surprised by the non-normative behavior when it occurs and are unaware of how to react. In addition, the non-normative form of aggression may be a welcome substitute for the more pain inducing normative form of physical aggression.

The use of relational aggression among boys may also be reflective of a developmental trend. Inspection of the literature on aggression reveals a developmental trend, with physical aggression appearing in early childhood, direct verbal aggression occurring in middle to late childhood, and indirect forms of aggression appearing during adolescence and adulthood (Björkqvist, 1994; Björkqvist et al., 1992).

Relational aggression is characterized by direct verbal threats (i.e., Tells kids they won't be friends with them if they don't do things their way) and indirect forms (i.e., When mad starts being friends with someone else to get back at the person) of aggression, with the purpose of manipulating relationships (Crick & Grotpeter, 1995; Delveaux, 1997). Björkqvist (1994) suggests this sequence of aggression may be related to the development of social skills (physical-verbal-social). Since girls develop verbal skills earlier than boys (Maccoby & Jacklin, 1974), it is possible that they also develop relational forms of aggression before boys. Once boys start to develop more effective verbal skills they may start to engage in less physical forms of aggression. Thus, the boys who engaged in relational aggression in the present study, may have higher levels of social competence, compared to physically aggressive boys. If these boys did possess higher levels of social skills, it is not surprising that their peers did not reject or dislike them.

Physically/Relationally Aggressive Boys: Rejected and Nonrejected

To date, there are no published research studies that have investigated the self-perceptions of physically/relationally aggressive children. In the present study, physically/relationally aggressive boys were the only male aggressive group that reported low perceptions of behavioral conduct, compared to nonaggressive boys. This finding may be related to the fact that physical/relational aggressors received significantly more nominations for engaging in physical aggression compared to physically aggressive boys and also more nominations for relational aggression compared to relationally aggressive boys. Since physically/relationally aggressive boys were a more extreme aggressive group, perhaps their nonaggressive peers provided more clear and direct negative feedback.

A separate analysis was also conducted that only included physically/relationally aggressive boys and nonaggressive boys (i.e., an analysis without physical aggression and relational aggression included). Physically/relationally aggressive boys were found to report significantly higher perceptions of social acceptance, compared to nonaggressive boys.⁹ Unfortunately, when the alpha level was controlled for (i.e. Bonferonni correction), the result was no longer significant. However, with a larger sample size, the result would probably remain significant and thus will receive minor attention in this section (Stevens, 1996).

Similar to the rejection status of physical aggressors, physically/relationally aggressive boys did not report a variation in their self-perceptions as a consequence of being rejected by their peers. Upon examination of the frequency distributions for physically/relationally aggressive boys, it was revealed that physically/relationally aggressive boys were the most

⁹ $F(1, 102) = 4.82, p < .05.$

rejected male aggressive group (67% of physical/relational; 42% of physical; 14% relational). To determine if physically/relationally aggressive boys were significantly more disliked than physically aggressive boys and relationally aggressive boys, a comparison of the number of dislike nominations was done. As expected, physically/relationally aggressive boys were significantly more disliked than physically aggressive and relationally aggressive boys.

Together these findings suggest that even though physically/relationally aggressive boys were the most rejected aggressive group, and received the most negative nominations, they were not internalizing this rejection into their social acceptance perceptions. In fact, these aggressive children seem to have a cognitive bias towards distorting the negative information into positive feedback. The possibility of a cognitive bias in aggressive children will be explored following the presentation of the results concerning female physical/relational aggressors.

Relationally Aggressive Girls: Rejected and Nonrejected

A developmental path has been suggested by Wellman and Crick (1998) that is particularly interesting. These researchers hypothesize that the depressed affect reported by relationally aggressive preschoolers (Crick et al., 1997), develops into reports of loneliness, depression, and low perceived competencies in childhood (Crick & Grotpeter, 1995), which then leads to clinical depression and self-harm behaviors in adulthood (Wellman & Crick, 1998).

Of particular concern for the present study were the perceived competencies of relationally aggressive children. The results of the present study, revealed that relationally aggressive girls reported a similar level of domain self-perceptions (i.e., social acceptance, behavioral conduct, physical appearance, athletic competence, scholastic competence) and global self worth, compared to nonaggressive girls. In addition, as hypothesized, the self-perceptions of

relationally aggressive girls did not change when rejection status was included in the analysis.

To date, only one other study has examined domain specific self-perceptions of elementary school children (Crick & Grotpeter, 1995). Using a measure that assessed children's perceptions of peer relations, Crick and Grotpeter found that relationally aggressive girls perceived themselves as poorly accepted by their peers. Based on this research finding and the nature of relational aggression (e.g., manipulation of friendships), it was suggested that relational aggressors would receive negative feedback almost immediately and as such maintain fairly accurate self-perceptions. In the present study, support was not found for this hypothesis.

Similar results to the present study, were reported by Schoenfeld (1999) with a slightly older sample (i.e., grade 7 and 8). The perceived competencies of relationally aggressive pre-adolescents did not differ from a nonaggressive or a prosocial group. The researcher speculated that since sociometric status was not investigated, the relationally aggressive children in their study may have been popular amongst peers. If the relationally aggressive children were nominated as popular, moderate self-perceptions would not be unexpected. In the present study, the sociometric status of relational aggressors was examined and it was concluded that the self-perceptions of popular relationally aggressive girls did not differ from rejected relationally aggressive girls.¹⁰

The finding that relationally aggressive girls did not report lower self-perceptions than their nonaggressive peers is somewhat surprising. Relational aggression is characterized by behaviors that harm peers through purposeful manipulation and damage of peer relationships

¹⁰A one way MANOVA indicated that the two groups of relational aggressors did not differ on the first or second set of self-perceptions, $F(6, 80) = 1.38, p > .05, \eta^2 = .09, \text{Power} = .51$; $F(6, 80) = .83, p > .05, \eta^2 = .06, \text{Power} = .31$; see Appendix G).

(Crick & Grotpeter, 1995). Crick and her colleagues have shown that relational aggression is a normative form of aggression among girls and is typically used within the friendship (Crick et al., 1996). Since girls interact in dense friendships (Björkqvist et al., 1992), this should allow for immediate rejection or disapproval from their friends. The disapproval from friends of relational aggressors should also be quite forceful, given that research has consistently shown that children are much less accepting of aggression in girls than boys and because relational aggressors direct their aggression towards friends (Crick et al., 1996).

In the present study, relationally aggressive girls were more disliked than nonaggressive girls yet lower perceptions of social, behavioral, and global self-worth were not reported. Similar to physically aggressive boys, relationally aggressive girls may be buffered by the effects of peer rejection by having the support of a close friend. This line of reasoning is a little more difficult to apply to relationally aggressive girls, since they more often engage in relationally aggressive behavior towards close friends than towards the larger peer group (Crick et al., in press).

Again, similar to physically aggressive boys, friends of relationally aggressive girls may be too intimidated to verbalize their hurt feelings. In fact, the friendships of relationally aggressive girls are characterized by high levels of disclosure (i.e., reporting of secrets) by the nonaggressive friend. The high level of intimacy may give the relational aggressor a certain degree of power over their nonaggressive friend (Grotpeter & Crick, 1996).

Finally, since physically aggressive children typically become friends with individuals who behave similar to themselves (Cairns et al., 1989), it is possible that a similar phenomenon exists for relationally aggressive girls. Through the process of social comparison (Festinger, 1954), children make judgements of their behavior and actions, by reflecting upon their friend's

behavior. Since the immediate friends of physically aggressive children are also aggressive, the maladaptive behavior does not seem atypical. Research needs to be directed towards examining the friendships of relational aggressors to determine whether relationally aggressive children befriend one another.

Physically/Relationally Aggressive Girls

Physically/relationally aggressive girls reported lower perceptions of behavioral conduct, compared to nonaggressive girls. Similar to the analysis for boys, physically/relationally aggressive girls were nominated significantly more for engaging in relational aggression, compared to relationally aggressive girls. Based on the physical/relational aggressor's extreme behavior, the nonaggressive peers may have been provoked to provide more clear and direct evidence of disapproval towards the maladaptive behavior.

Interestingly, even though physically/relationally aggressive girls were nominated as more disliked than both relationally aggressive and nonaggressive girls, they did not report lower levels of social acceptance. It is also important to note that inspection of the sociometric frequency distributions revealed that all of the physically/relationally aggressive girls were rejected by the peer group.

Crick (1995) suggests that physically/relationally aggressive children may be more similar to physically aggressive children than relationally aggressive children. This hypothesis is based on her research finding that physical/relational aggressors express intent attributions similar to physical aggression and dissimilar to relational aggression. In the present study, 96% of the physical aggressors were boys and similarly 81% of the physically/relationally aggressive group were boys. Since the large majority of physically/relationally aggressive children are boys,

perhaps the physical component is a stronger predictor of who is nominated for that particular group.

Physically/relationally aggressive children are an extreme group of children that are engaging in both forms of aggression. They are the most rejected subgroup of children and they are also the only aggressive group that are reporting low perceptions of behavioral conduct, compared to their nonaggressive peers. Very little is known about this aggressive group but in light of the research findings in the present study, future researchers should make an attempt to increase sample sizes to ensure the inclusion of this group.

General Summary

In summary, it appears as though physically aggressive and relationally aggressive children did not perceive themselves in a negative light, compared to their nonaggressive peers. The only aggressive group that reported low self-perceptions (i.e., behavioral conduct) was the physical/relational aggressive group. The aggressive group that was the most rejected (i.e., physically/relationally aggressive boys and girls) failed to report low levels of social acceptance. Finally, physically/relationally aggressive boys were the only aggressive group that overestimated self-perceptions of social acceptance. The results taken together suggest that although the majority of aggressive children did not seem to overestimate their self-perceptions, they also were not reporting low self-perceptions as was once thought (Burdett & Jensen, 1983).

Self-Perceptions: Distorted Cognitive Appraisals

A state of cognitive dissonance (Festinger, 1957) is a feeling that arises when there is inconsistency between perceptions of the self. Cognitive dissonance is typically an unpleasant state and people who experience it are motivated to reduce it. The theory would suggest that self-

perceptions are affected by our need to create and maintain a consistent and coherent state. It is suggested that our appraisals of self are continually undergoing validation and invalidation in an attempt to maintain harmony referred to as “cognitive equilibrium” (Hattie, 1992). For self-perceptions, cognitive dissonance could arise when external feedback is encoded and is inconsistent with a person’s existing self system. The manner in which people respond to cognitive dissonance varies. First, individuals can change their self-perceptions so they are more in line with external feedback. Second, individuals can respond by distorting or rejecting feedback. Third, individuals can place varying importance on the feedback dependent on the source.

Research conducted by Hill and colleagues support the second response style which involves individuals either distorting or rejecting external feedback which is inconsistent with self-perceptions (Hill, Lewicki, Czyzewska, & Bos, 1989). In a series of experiments done by these researchers, a participant’s interpretation of external stimuli was found to be biased in a self-supportive direction. Cairns and Cairns (1994) suggest that when a person is confronted with negative feedback from the social environment, cognitions about the self will be biased towards maintaining integration and reducing stress. When the process of the integration of self is threatened, Baumeister et al. (1996) believe an aggressive individual will respond with violence. These researchers suggest that when aggressive individuals are confronted with positive feedback that coincides with positive self-concepts, they will be receptive. However, when individuals are confronted with negative information they will resist change. In Baumeisters et al.’s (1996) view, the discrepancy between a person’s overly high self-concept and unfavorable feedback predicts violent outcomes.

The third response style of cognitive dissonance theory involves individuals placing varying importance on feedback dependent upon the source of the feedback. Shrauger and Schoeneman (1979) have conducted research in this area and maintain that self-perceptions are more likely to be influenced by others if they are viewed as credible and if they are of value to us. During the middle childhood period, self-evaluations in the face of others increases significantly (Cole & Cole, 1996). Since aggressive children are failing to report low perceptions of social acceptance, perhaps the friends of aggressive children are providing positive feedback, and aggressive children are placing importance on the opinions of these close friends and not others. If the friend is considered to be significant, and if their opinion carries weight in the aggressor's evaluation of self, then the positive information will be encoded into the aggressor's self-system.

The period of middle childhood provides a rich opportunity for children to engage in social comparison with peers. Typically when children engage in social comparison they are able to compare their behavior, skills, morals and beliefs with other children the same age. It would seem reasonable to assume that once aggressive children begin to compare themselves with their nonaggressive peers, self-evaluations of social acceptance, behavioral conduct, and global self-worth would start to decline. In the present study, the results demonstrated that only physically/relationally aggressive boys and girls reported lower perceptions of behavioral conduct. Furthermore, none of the aggressive groups reported lower perceptions of social acceptance or global self-worth. It logically follows that aggressive children are either distorting or rejecting the negative information they are receiving or they are placing varying importance on the feedback dependent on the source.

Two Forms of Self-Esteem

Some interesting research has been conducted in the area of self-esteem. A distinction has been made between “true” high self esteem and defensive high self esteem. Stotland and colleagues, speculate that two types of high self-esteem exist (Stotland, Thorley, Thomas, Cohen, & Zander (1957). These researchers believe that when individuals with “true” high self-esteem experience a failure performance they de-emphasize the failure by emphasizing a successful performance. Whereas, a person with a defensive high self-esteem would tend to rate their failure performance better than the reality. Thus, the “true” high self-esteem individual is not threatened by failure and makes no attempts to repudiate failure, whereas the defensive high self-esteem individual tries to conceal failure.

Schneider and Turkat (1975) provide support for these two types of high self-esteem. They used a social desirability scale, and found that defensive high self-esteem individuals made attempts to present themselves in a more positive light when confronted with failure, compared to individuals with “true” high self-esteem. So the results suggest that defensive high self-esteem individuals can be differentiated from “true” high self-esteem by their stronger need for approval when faced with failure. When confronted with a failure situation, defensive high self-esteem individuals will be extremely concerned with presenting social desirable appearances and will distort any negative information they receive. Individuals with “true” high self-esteem seem to accept failure and probably try to improve upon areas of failure.

Recent studies in which aggressive children reported overly positive self-perceptions, probably involved children with defensive high self-esteem (Cairns & Cairns, 1994; Hymel et al., 1993; Lochman & Dodge, 1994). When these children were faced with evidence that threatened

their positive self-perceptions they minimized or distorted the information (Zakriski & Coie, 1996). Zakriski et al. (1997) suggest the appearance of a nonchalant denial of behavior by aggressive children, may in fact be a “very effortful coping strategy designed to alleviate underlying discomfort and distress.”(p. 434).

The distinction between “true” high self-esteem and defensive high self esteem could be generalized to the results of the present study. The “average” self-perceptions reported in general by both aggressive and nonaggressive children could be further divided into “true” average self-perceptions and defensive average self-perceptions. The argument could be made that aggressive children who are reporting average levels of self-perceptions are indeed distorting negative feedback. Problems for these children arise when they can no longer distort negative information once directly confronted. Most importantly, Baumeister et al. (1996) warn that when inflated or inaccurate self-perceptions are confronted with disconfirming external evidence, violence will undoubtedly follow. Thus, further research is need to clarify whether the average levels of self-perceptions reported by aggressive children are legitimate or defensive in nature.

Self-Perceptions of Delinquents Versus Nondelinquents

Delinquency is defined as those crimes that have a direct effect on the security of the community, such as misdemeanors and felony charges (Haddock & Sporakowski, 1983). Researchers since the late 1960's have found that perceived competencies of delinquents did not differ significantly from nondelinquents. Despite the fact that researchers hypothesized that delinquent children would internalize the negative label of deviance, the results failed to support their beliefs (Deitz, 1969; Haddock & Sporakowski, 1983; Hains, 1982).

Deitz (1969) speculated that delinquent children would experience an inner conflict from

a combination of their negative behavior and rejection from others. It was believed that this inner conflict would be revealed in the reporting of low self-perceptions. In Deitz's (1969) study, the male juvenile delinquents were living at a local juvenile hall and ranged in age from 14 to 18 years. Contrary to Deitz's (1969) hypothesis, the results demonstrated that self-perceptions of delinquents did not differ from nondelinquents. The researcher explained the unexpected results by suggesting that perhaps self-perceptions did not differ as a function of the delinquent-nondelinquent dichotomy. Alternatively, Deitz (1969) suggested that perhaps a defense system was in effect which served to protect delinquent children from rejection.

Following the publishing of Deitz's (1969) study, researchers rejected his findings and faulted the results on poor methodology. For example, Burns (1979) suggested that the nonsignificant results reported by Deitz (1969) were due to the ineffective instrument used to measure self-perceptions. Burns (1979) believed that the instrument failed to penetrate the defense system that delinquent children more than likely possess.

More recently, Hains (1982) conducted a study with a group of male delinquents and nondelinquents in the age range of 10 to 15 years old. The study focused on identifying specific cognitive deficits in delinquent children such as moral judgement, logical cognitive tasks, and self-perceptions. It is important to note that the instrument used to measure self-perceptions differed from the measure employed by Deitz (1969). Similar to the results obtained by Deitz (1969) the self-perceptions of delinquent boys did not differ from nondelinquents. It was suggested that the "normal" self-perceptions reported by delinquent boys were reflective of a cognitive deficit. Delinquent boys also experienced difficulty with moral reasoning and logical cognitive abilities, supporting the presence of cognitive deficits in delinquent children. Finally,

Haddock and Sporakowski (1983) were interested in examining self-concepts among both male and female delinquents. Consistent with the above research findings, the researchers concluded that self-perceptions of delinquent male and females did not differ from nondelinquent children.

Based on the above research findings, it is possible that the moderate self-perceptions of aggressive children (such as in the present study) are predictive of later delinquent behavior. It is possible that aggressive children who do not accurately perceive the impact of their behavior, continue to engage in aggressive acts well beyond childhood. The aggressive children in the present study seem to be unaware of the fact that they are rejected by their peers and consequently do not have the incentive to change their behavior. Thus, it is possible that with the lack of intervention, aggressive school age children may develop into juvenile delinquents who are equally unaware of their maladaptive behavior.

Self-Perceptions, Interventions, and Therapy

In a meta analytic review of 89 research studies, Hattie (1992) concluded that it was possible to change an individual's level of self-concept by some form of intervention (e.g., cognitive intervention, affective orientation, educational intervention), although this change was not as great as many researchers would claim. Most alarming for aggressive children, Hattie (1992) found that self-concepts that are considered acceptable to the individual are more resistant to change. In support, Fitts (1981) conducted a study on the stability of self-perceptions and found that persons with low self-perceptions typically scored lower on consistency scales than people with high self-esteem. So individuals who report low self-perceptions seem to be more sensitive to incoming positive and negative information and individuals with high self-perceptions are more resistant.

In an interesting study conducted by Kipnis (1961), the effects of similarity and dissimilarity of friends on the level of self-perceptions was investigated. It was found that regardless of the level of self-perceptions reported, individuals perceived their friends to be the most similar to themselves. Any changes that occurred in the level of self-perceptions, were influenced by the individual's desire to become more like their friends, irrespective of whether their friends reported higher or lower self-perceptions. Again, this finding is particularly alarming for aggressive children since research suggests that aggressive children tend to be friends with other aggressive children (Cairns et al., 1989). Thus, friendships of aggressive children may be serving as a context in which inaccurate self-perceptions are maintained.

Many of the existing interventions and therapeutic techniques have been created with the underlying belief that aggressive children suffer from low self-worth (Lochman, 1990; Lochman, Coie, Underwood, & Terry, 1993). Baumeister et al. (1996) speculate that interventions aimed at improving aggressive children's self-perceptions are likely making the problem worse. Similarly, Cairns and Cairns (1994) submit that over the past number of years, research that has evolved from self-concept intervention programs has not supported the presumed link between aggression and low self-perceptions.

An effective intervention would be one that addressed the misconceptions that aggressive children have regarding the impact of their behavior on society. The learned misconceptions (or faulty beliefs or mistaken ideas) according to Raimy (1975), are the crucial variables that must be modified so that psychotherapy can be successful. It is suggested that an individual's misconceptions can be modified by self-examination, self-demonstration, explanation, and modeling or imitation.

For the aggressive child, effective intervention should focus both on the child and the social contingencies that affect aggressive responses (i.e., peer group). The cognitive deficits that aggressive children display involve: difficulties with cue recall, distorted attributions, ineffective social problem solving, and inaccurate perceived competencies (Lochman & Dodge, 1994). Lochman et al. (1993) conducted an intervention with a group of grade four rejected aggressive children. The intervention focused on social problem solving, positive play training, group-entry skill training, and dealing effectively with negative emotions. The social relations training program lasted the duration of the school year and was followed up a year later. As predicted, the rejected aggressive children engaged in a lower number of aggressive behaviors, experienced less social rejection, and improvements in prosocial behavior, at post-intervention and one year follow-up. The results concerning the perceived competencies of children were rather surprising yet informative. After the intervention was completed, perceptions of self-worth increased for the control children, but decreased for rejected aggressive children. It is suggested that once children engage in direct discussion about their aggressive behavior they become sensitive to the problem and then work towards improving their behavior.

The influence of the peer group also needs to be addressed when discussing effective interventions. As discussed in previous sections, the peer group can contribute to an aggressive child's inaccurate self-perceptions by either ignoring or submitting to the behavior. Unfortunately, their submission may be interpreted by the aggressive child as acceptance or respect (Zakriski et al., 1997). As well, aggressive children maintain friendships with their peers; therefore, they may be receiving positive reinforcement for their behavior. Aggressive children do not have a strong incentive to change their behavior when they are surrounded by supportive

friends and peers outside of the social network who ignore or submit to the behavior. A school level intervention is needed to address the possible malfunctioning peer groups. The peer group needs to be taught that constructive criticism can be effective if used in a responsible manner (Zakrski et al., 1997).

Limitations and Future Research

The first major limitation of the present study was the incomplete design for male and female aggressors. The observed frequencies of the chi square test revealed that type of aggression was confounded by gender, thus limiting analyses. For example, the perceived competencies of physically aggressive boys and girls could not be compared (i.e., only one physically aggressive girl). As well, when the frequency distributions were examined for rejection and nonrejection status of aggressive children, empty and small cells were found (i.e., the cell for nonrejected physically/relationally aggressive girls was empty and there were only two rejected relationally aggressive boys). The incomplete design for both aggression status and rejection status limited the number of analysis that were performed in the present study.

A second limitation involves the lack of information pertaining to friends of aggressive children. In previous sections of this paper, speculation regarding the characteristics of aggressive children's friends were often made. It is not known whether the friends of physically and relationally aggressive children provide positive feedback. If friends of aggressive children are providing positive reinforcement and aggressive children are placing great importance on the opinions of these close friends, it is not surprising that aggressive children do not generally view themselves in a negative light. As well, simply by being friends with an aggressive child, positive reinforcement is occurring without the direct intent of the friend.

Research suggests that physically aggressive children associate with one another (Cairns et al., 1988; 1989); however, very little is known about the friendships of relationally aggressive children. Since physically aggressive children tend to associate with one another, comparisons of behavior and social acceptance made by one aggressive child may be measured against the behavior and social acceptance of another aggressive child. If this phenomenon exists for physically aggressive children, it may also occur for relationally aggressive children. Given that friends tend to be more similar than nonfriends, in terms of antisocial behavior (Cairns & Cairns, 1994), relationally aggressive children may be receiving positive reinforcement from their relationally aggressive friends.

Future research on relational aggression also needs to address the research finding that relationally aggressive boys were not rejected by the peer group. In the present study, a number of possible explanations have been suggested including the possibility that relationally aggressive boys possess a higher level of social intelligence resulting in acceptance by peers. Thus, the inclusion of a social intelligence measure could be included in future research focusing on relationally aggressive children in order to assess this hypothesis.

A cautionary note for future research involves the scale used to measure the perceived competencies of children. The Self-Perception Profile for Children (Harter, 1985), is a self-report instrument that is designed to assess a child's sense of competence. Children were asked to read a sentence on the left side of the paper and a sentence on the right side of the paper. The children were then told that one of two sentences would describe them more and to decide which description best depicts them. Once children picked a description, they were asked to indicate whether the description was "really true" of them or "sort of true" of them. Invariably children

were confused by the instructions of the measure and as such, occasionally responded to the measure incorrectly. The common mistake that children made was responding to both descriptive sentences. For example, children would say how true it is that they do well in school, and don't do well in school. Fortunately, when the measure was administered to the children there were two research assistants present. As one research assistant read the measure and asked the children to follow along, the other research assistant circulated the floor to make sure children were filling out the measure correctly. The problem encountered with this measure has been reported in other research projects, thus careful attention is in order when administering the measure (Marsh & Holmes, 1990).

Conclusion

Results of the study suggested that physical aggression and relational aggression were not related to low self-perceptions. Even once rejection status was included in the analysis, the self-perceptions of physical aggressors and relational aggressors were not lowered. These results would negate any intervention that is aimed at improving the self-perceptions of aggressive children.

Physical/relational aggressors were the only aggressive children that reported low behavioral conduct, compared to nonaggressive children. Regardless of the fact that physically/relationally aggressive children were the most rejected aggressive group, they did not report low levels of social acceptance. It would appear that in general, aggressive children did not internalize the negative feedback of peers. Thus the results of this study are in direct opposition to conventional wisdom that aggressive children suffer from low self-esteem.

It is not known why aggressive children did not report low self-perceptions. On a

theoretical level it seems quite logical that if an individual physically or emotionally hurts another, the culprit would feel guilt, shame or regret. The negative emotions that the culprit experiences should then in theory be internalized into negative perceptions of self. This process seems to be deficient for aggressive children. Alternatively, the support or reinforcement from close friends may have provided a sort of buffer for aggressive children. In addition, the peer group may not have provided direct evidence of disapproval (e.g., verbal disapproval) towards aggressive children.

Future intervention is needed to improve upon aggressive children's awareness of the negative impact of their behavior. If aggressive children do not perceive their behavior to be inappropriate, then what incentive do they have to improve their behavior? Research was presented which demonstrated that the self-perceptions of delinquent children did not differ from non-delinquent children (Deitz, 1969; Haddock & Sporkowski, 1983; Hains, 1982), which is similar to the present study's finding that self-perceptions did not differ between aggressive and nonaggressive children. Clearly, an intervention is needed to improve the level of awareness, to prevent the aggressive child from developing into a juvenile delinquent.

References

- Allen, D.M., & Tarnowski, K.J. (1989). Depressive characteristics of physically abused children. Journal of Abnormal Psychology, 17, 1-11.
- American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington, DC: Author.
- Asher, S.R., & Wheeler, V.A. (1985). Children's loneliness: A comparison of rejected and nonrejected peer status. Journal of Consulting and Clinical Psychology, 53, 500-505.
- Baumeister, R.F., Smart, L., & Boden, J.M. (1996). Relation of threatened egotism to violence and aggression. The dark side of high self-esteem. Psychological Review, 103 (1), 5-33.
- Baumrind, D. (1967). Child care practices anteceding three patterns of preschool behavior. Genetic Psychology Monographs, 75, 43-88.
- Baumrind, D. (1971). Current patterns of parental authority. Developmental Psychology Monographs, 4 (1, Pt.2).
- Beer, J. (1989). The relationship of divorce to self-concept, self-esteem, and grade point average of fifth and sixth grade children. Psychological Reports, 65, 1379-1383.
- Björkqvist, K. (1994). Sex differences in physical, verbal, and indirect aggression: A review of recent research. Sex Roles, 30 (3-4), 177-188.
- Björkqvist, K., Österman, K., & A. (1992). The development of direct and indirect aggressive strategies in males and females. In K. Björkqvist & P. Niemelä (Eds.), Of mice and women: Aspects of female aggression, (pp. 51-63). San Diego, CA: Academic Press.
- Block, J.H. (1983). Differential premises arising from differential socialization of the sexes: Some conjectures. Child Development, 54, 1335-1354.

Boivin, M. & Begin, G. (1989). Peer status and self-perceptions among early elementary school children: The case of the rejected children. Child Development, 60, 591-596.

Boivin, M., Cote, L., & Dion, M. (1991). The self-perceptions and peer experiences of aggressive-rejected and withdrawn-rejected children. Paper presented at the meeting of the Eleventh Biennial International Society for the Study of Behavioral Development, Minneapolis, MN.

Boivin, M. & Hymel, S. (1997). Peer experiences and social self-perceptions: A sequential model. Developmental Psychology, 33 (1), 135-145.

Boivin, M., Poulin, F., & Vitaro, F. (1994). Depressed mood and peer rejection in childhood. Development and Psychopathology, 6, 483-498.

Boulton, M.J., & Smith, P.K. (1994). Bully/victim problems in middle-school children: Stability, self-perceived competence, peer perceptions and peer acceptance. British Journal of Developmental Psychology, 12, 315-329.

Bower, E.M., & Lambert, N.M. (1961). A process for in-school screening of emotionally handicapped children. Princeton, NJ: Educational Testing Service.

Bowlby, J. (1969). Attachment and loss: Vol. 1. attachment. New York: Basic Books.

Bracken, B.A. (1992). Multidimensional self-concept scale. Austin, TX: Pro-Ed.

Bracken, B.A. (1996). Handbook of self-concept. New York: John Wiley & Sons, Inc.

Brinthaupt, T.M., and Lipka, R.P. (1992). The self definitional and methodological issues. New York: State University of New York Press.

Bronfenbrenner, U. (1993). The ecology of cognitive development: Research models and fugitive findings. In R.H. Wozniak & K.W. Fischer (Eds.), Development in context (pp. 3 - 44).

Hillsdale, NJ: Erlbaum.

Bryne, B.M. (1996). Measuring self-concept across the life span. Washington DC: American Psychological Association.

Bukowski, W.M., & Hoza, B. (1989). Popularity and friendship. Issues in theory, measurement and outcome. In T.J. Berndt & G.W. Ladd (Eds.), The development and treatment of childhood aggression. (pp.249-278). Hillsdale, NJ: Erlbaum.

Burdett, K., & Jensen, L.C. (1983). The self-concept and aggressive behavior among elementary school children from two socioeconomic areas and two grade levels. Psychology in the Schools, 20, 370-375.

Burns, R.B. (1979). The self concept in theory, measurement, development and behavior. New York: Longman Group Limited.

Cairns, R.B., & Cairns, B.D. (1994). Lifelines and risks: Pathways of youth in our time. Press Syndicate of University of Cambridge.

Cairns, R.B., Cairns, B.D., Neckerman, H.J., Ferguson, L.L., & Garipey, J.L. (1989). Growth and aggression: 1. Childhood to early adolescence. Developmental Psychology, 25, 320-330.

Cairns, R.B., Cairns, B.D., Neckerman, H.J., Gest, S.D., & Garipey, J. (1988). Social networks and aggressive behavior: Peer support or peer rejection. Developmental Psychology, 24, 815-823.

Callaghan, S., & Joseph, S. (1995). Self-concept and peer victimization among school children. Personality and Individual Differences, 18 (1), 161-163.

Chapman, J.W., & Tunmer, W.E. (1995). Development of young children's reading self-

concepts: An examination of emerging subcomponents and their relationship with reading achievement. Journal of Educational Psychology, 87, 154-167.

Coie, J.D., & Dodge, K.A. (1983). Continuities and changes in children's social status: A five-year longitudinal study. Merrill-Palmer Quarterly, 29, 261-282.

Coie, J.D., Dodge, K.A., & Coppotelli, H. (1982). Dimensions and types of social status: A cross-age perspective. Developmental Psychology, 18, 557-570.

Coie, J.D., Dodge, K.A., Terry, R., & Wright, V. (1991). The role of aggression in peer relations: An analysis of aggression episodes in boys' play groups. Child Development, 62, 812-826.

Coie, J.D., Lochman, J.E., Terry, R., & Hyman, C. (1992). Predicting early adolescent disorder from childhood aggression and peer rejection. Journal of Consulting and Clinical Psychology, 60, 783-792.

Cole, M. & Cole, S.R. (1996). The development of children. (3 rd ed.). New York: W.H. Freeman and Company.

Cooley, C. (1902). Human nature and the social order. New York: Scribner.

Coopersmith, S.A. (1967). The antecedents of self-esteem. San Francisco: Freeman.

Crick, N.R. (1995). Relational aggression: The role of intent attributions, feelings of distress, and provocation type. Development and Psychopathology, 7, 313-322.

Crick, N.R. (1996). The role of overt aggression, relational aggression, and prosocial behavior in children's future social adjustment. Child Development, 67, 2317-2327.

Crick, N.R., Bigbee, M.A., & Howes, C. (1996). Gender differences in children's normative beliefs about aggression: How do I hurt thee? Let me count the ways. Child

Development, 67, 1003-1014.

Crick, N.R., Casas, J.F., & Mosher, M. (1997). Relational and overt aggression in preschool. Developmental Psychology, 33, 579-588.

Crick, N.R., & Grotpeter, J.K. (1995). Relational aggression, gender, and social-psychological adjustment. Child Development, 66, 710-722.

Crick, N.R., & Grotpeter, J.K. (1996). Children's treatment by peers: Victims of relational and overt aggression. Development and Psychopathology, 8, 367-380.

Crick, N.R., & Wellman, N.E. (in press). Response decision processes in relational and overt aggression. Child Development.

Crick, N.R., Wellman, N.E., Casas, J.F., O'Brien, K.M., Nelson, D.A., Grotpeter, J.K., & Markon, K. (in press). Childhood aggression and gender: A new look at an old problem. Nebraska Symposium on Motivation.

Daniels-Beirness, T. (1989). Measuring peer status in boys and girls: A problem of apples and oranges? In B.H. Schneider, G. Attili, J.Nadel, & R.P. Weissberg (Eds.), Social competence in developmental perspective (pp. 107-120). The Netherlands: Kluwer Academic Publishers.

Deitz, G.E. (1969). A comparison of delinquents with nondelinquents on self-concept, self-acceptance, and parental identification. The Journal of Genetic Psychology, 115, 285-295.

Delveaux, K.D. (1997). Physically aggressive, relationally aggressive, and prosocial children: Their goals and strategies in peer conflict situations. Unpublished master's thesis, Carleton University, Ottawa, Ontario, Canada.

Delveaux, K.D., Daniels, T., & Clyde, A. (1996). Children's schemas for aggressive behavior: Their perceptions of physical, verbal and relational aggression. Unpublished

Manuscript.

Dodge, K.A., & Coie, J.D. (1987). Social-information processing factors in reactive and proactive aggression in children's peer group. Journal of Personality and Social Psychology, 53, 1146-1158.

Eccles (Parsons), J., Adler, T.F., Futterman, R., Goff, S.B., Kaczala, C.M., Meece, J.L., & Midgley, C. (1983). Expectancies, values, and academic behaviors. In J.T. Spence (Ed.), Achievement and achievement motives (pp. 75-146). San Francisco: Freeman.

Eccles, J.S. & Jacobs, J.E. (1986). Social forces shape math attitudes and performance. Signs, 11, 367-380.

Erikson, E.H. (1968). Identity: Youth and crisis. New York: Norton.

Ferrari, M. & Sternberg, R.J. (1998). Self-awareness: Its nature and development. New York: The Guilford Press.

Festinger, L. (1954). A theory of social comparison processes. Human Relations, 7, 117-140.

Festinger, L. (1957). A theory of cognitive dissonance. Evanston, IL: Row-Peterson.

Fitts, W.H. (1981). Issues regarding self-concept change. In M.D. Lynch, A.A. Norem-Hebersen, & K. Gergen (Eds.), Self-concept (pp.261-272). Cambridge, MA: Ballinger.

Galen, B.R., & Underwood, M.K. (1997). A developmental investigation of social aggression among children. Developmental Psychology, 33 (4), 589-600.

Gerber, R.J. (1991). Long-term effects of divorce on the self-esteem of young adults. Journal of Divorce and remarriage, 17, 131-140.

Graham, S., & Juvonen, J. (1998). A social cognitive perspective on peer aggression and

victimization. In R. Vasta (Ed.), Annals of child development (pp. 23-70). London: Jessica Kingsley Publishers.

Granleese, J., & Joseph, S. (1993). Factor analysis of the self-perception profile for children. Personality and Individual Differences, 15 (3), 343-345.

Grotmeter, J.K., & Crick, N.R. (1996). Relational aggression, overt aggression, and friendship. Child Development, 67, 2328-2338.

Grotmeter, J.K., Crick, N.R., & Bigbee, M.A. (1997). Intent attributions of relationally and overtly aggressive and victimized children: Because they're being mean. Manuscript submitted for publication.

Haddock, B.L. & Sporkowski, M.J. (1983). Self-concept and family communication: A comparison of status and criminal offenders and non-offenders. Journal of Offender Counseling, 2 (2), 61-74.

Hains, A. A. (1982). Variables in social cognitive development: Moral judgment, role taking, cognitive processes, and self-concept in delinquents and nondelinquents. Journal of Early Adolescence, 4 (1), 65-74.

Harter, S. (1982). The perceived competence scale for children. Child Development, 53, 87-97.

Harter, S. (1985). Manual for the self-perception profile for children. Unpublished manuscript. University of Denver.

Harter, S. (1989). Causes, correlates, and the functional role of global self-worth: A life-span perspective. In J. Kolligian & R. Sternberg (Eds.), Perceptions of competence and incompetence across the life-span (pp. 67-99). New Haven, CT: Yale University Press.

Harter, S. (1990). Causes, correlates and the functional role of global self-worth: A life-span perspective. In J.Kolligian & R. Sternberg (Eds.), Perceptions of competence and incompetence across the life-span (pp.67-98). New Haven, CT: Yale University Press.

Harter, S., Marold, D.B., & Whitesell, N.R. (1992). Model of psychosocial risk factors leading to suicidal ideation in young adolescents. Development and Psychopathology, 4, 167-188.

Harter, S., & Pike, R. (1983). The pictorial perceived competence scale for young children. Denver, CO: University of Denver.

Harter, S., & Pike, R. (1984). The pictorial perceived competence scale for young children. Child Development, 55, 1969-1982.

Hattie, J. (1992). Self-concept. New Jersey: Lawrence Erlbaum Associates.

Hill, T., Lewicki, P., Czyzewska, M., & Bos, A. (1989). Self-perpetuating development of encoding biases in person perception. Journal of Personality and Social Psychology, 57, 373-387

Hughes, J.N., Cavell, T.A., & Grossman, P.B. (1997). A positive view of self: Risk or protection for aggressive children? Development and Psychopathology, 9, 75-94.

Hymel, S., Bowker, A., & Woody, E. (1993). Aggressive versus withdrawn unpopular children: Variations in peer and self-perceptions in multiple domains. Child Development, 64, 879-896.

Hymel, S., Rubin, K.H., Rowden, L., & LeMare, L. (1990). Children's peer relationships: Longitudinal prediction of internalizing and externalizing problems from middle to late childhood. Child Development, 61, 2004-2021.

James, W. (1890). Principles of psychology: Vol. I. New York: Holt.

King, C.A., Akiyama, M.M., & Elling, K.A. (1996). Self-perceived competencies and

depression among middle school students in Japan and the United States. Journal of Early Adolescence, 16 (2), 192-210.

Kipnis, D.M. (1961). Changes in self concepts in relation to perceptions of others. Journal of personality, 29 (4), 449-465.

Lochman, J.E. (1987). Self and peer perceptions and attributional biases of aggressive and nonaggressive boys in dyadic interactions. Journal of Consulting and Clinical Psychology, 55 (3), 404-410.

Lochman, J.E. (1990). Modification of childhood aggression. In M. Hersen, R. Eisler, & P.M. Miller (Eds.), Progress in behavior modification: Vol. 25. Newbury Park, CA: Sage.

Lochman, J.E., Coie, J.D., Underwood, M.K., Terry, R. (1993). Effectiveness of a social relations intervention program for aggressive and nonaggressive, rejected children. Journal of Consulting and Clinical Psychology, 61, 1053-1058.

Lochman, J.E. & Dodge, K.A. (1994). Social-cognitive processes of severely violent, moderately aggressive and nonaggressive boys. Journal of Consulting and Clinical Psychology, 62 (2), 366-374.

Maccoby, E.E., & Jacklin, C.N. (1974). The psychology of sex differences. Stanford, CA: Stanford University Press.

Marsh, H.W. (1985). Age and sex effects in multiple dimensions of preadolescent self-concept: A replication and extension. Australian Journal of Psychology, 37, 197-204.

Marsh, H.W. (1989). Age and sex effects in multiple dimensions of self-concept: Preadolescent to adulthood. Journal of Educational Psychology, 81, 417-430.

Marsh, H.W., Barnes, J., Cairns, L., & Tidman, M. (1984). The self-description

questionnaire (SDQ): Age effects in the structure and level of self-concept for preadolescent children. Journal of Educational Psychology, 75, 940-956.

Marsh, H.W., Craven, R., & Debus, R. (1991). Self concepts of children 5 to 8 years of age: Measurement and multidimensional structure. Journal of Educational Psychology, 83, 377-392.

Marsh, H.W. & Hattie, J. (1996). Theoretical perspectives on the structure of self-concept. In B.A. Bracken (Ed.), Handbook of self-concept: Developmental, social, and clinical considerations. New York: Wiley.

Marsh, H.W., & Holmes, I. (1990). Multidimensional self-concepts: Construct validation of responses by children. American Educational Research Journal, 27, 89-118.

Marsh, H.W., Relich, J.D., & Smith, I.D. (1983). Self-concept: The construct validity of interpretations based upon the SDQ. Journal of Personality and Social Psychology, 45, 173-187.

Marsh, H.W., & Smith, I.D. (1982). Multitrait-multimethod analyses of two self-concept instruments. Journal of Educational Psychology, 74, 430-440.

Marx, R.W., & Winne, P.H. (1978). Construct interpretations of three self-concept inventories. American Education Research Journal, 15, 99-108.

Mboya, M.M. (1994). Cross-cultural study of the structure and level of multidimensional self-concepts in secondary school students. School Psychology International, 15, 163-171.

McGuire, W.J. & McGuire, C.V. (1982). Significant others in self-space: Sex differences and developmental trends in the social self. In J. Suls (Ed.) Psychological perspectives on the self: Vol. 1 (pp. 71-96). Hillsdale, NJ: Lawrence Erlbaum Associates.

McGuire, W.J., & McGuire, C.V. (1988). Content and process in the experience of self. In

L. Berkowitz (Ed.) In Advances in experimental social psychology: Vol. 21 (pp. 97-144). San Diego: Academic Press.

McNeilly-Choque, M.K., Hart, C.H., Robinson, C.C., Nelson, L.J., & Olsen, S.F. (in press). Overt and relational aggression on the playground. Manuscript submitted for publication.

Meece, J.L., Wigfield, A., & Eccles, J.S. (1990). Predictors of math anxiety and its influence on young adolescents' course enrollment intentions and performance in mathematics. Journal of Educational Psychology, 82, 60-70.

Menesini, E. (1997). Behavioural correlates of friendship status among Italian schoolchildren. Journal of Social and Personal Relationships, 14 (1) 109-121.

Messer, B., & Harter, S. (1986). Manual for the adult self-perception profile. Denver, CO: University of Denver.

Miller, A. (1987). Changes in academic self-concept in early school years: The role of conceptions of ability. Journal of Social Behavior and Personality, 2, 551-558.

Morse, S.J., & Gergen, K.J. (1970). Social comparison, self-consistency and the presentation of self. Journal of Personality and Social Psychology, 16, 148-159.

Paris, S.G., & Byrnes, J.P. (1989). The constructivist approach to self-regulation and learning in the classroom. In B.J. Zimmerman & D.H. Schunk (Eds.), Self-regulate learning and academic achievement (pp. 169-200). New York: Springer-Verlag.

Parke, R.D., & Slaby, R.G. (1983). The development of aggression. In P.H. Mussen (Series Ed.) and E.M. Hetherington (Vol. Ed.), Handbook of child psychology: Vol. 4. (4th ed., pp.547-642). New York: Wiley.

Parker, J.G. & Asher, S.R. (1987). Peer relations and later personal adjustment: Are low-

accepted children at risk?. Psychological Bulletin, 102 (3), 357-389.

Patterson G. R. (1982). A social learning approach: Coercive family processes. Eugen, OR: Castalia.

Patterson, C., Kupersmidt, J., & Griesler, P. (1990). Children's perceptions of self and of relationships with others as a function of socio-metric status. Child Development, 61, 1335-1349.

Phillips, D. (1984). Socialization of perceived academic competence among highly competent children. Child Development, 55, 2000-2016.

Phillips, D. (1987). The illusion of incompetence among academically competent children. Child Development, 58, 1308-1320.

Pierce, K.A., & Cohen, R. (1995). Aggressors and their victims: Toward a contextual framework for understanding children's aggressor-victim relationships. Developmental Review, 15, 292-310.

Piers, E. V. (1969). Manual for the Piers-Harris children's self-concept scale. Nashville, TN: Counselor Recordings and Tests.

Piers, E. V., & Harris, D. (1964). Age and other correlates of self-concept in children. Journal of Educational Psychology, 55, 91-95.

Raimy, V. (1975). Understandings of the self. San Francisco: Jossey-Bass.

Ray, G.E., Cohen, R., Secrist, M.E., & Duncan, M.K. (1997). Relating aggressive and victimization behaviors to children's sociometric status and friendships. Journal of Social and Personal Relationships, 14 (1), 95-108.

Renick, M.J., & Harter, S. (1989). Impact of social comparisons on the developing self-

perceptions of learning disabled students. Journal of Educational Psychology, 81, 631-638.

Rys, G.S. & Bear, G.G. (1997). Relational aggression and peer relations: Gender and developmental issues. Merrill-Palmer Quarterly, 43 (1), 87-106.

Schaffer, H.R., & Emerson, P.E. (1964). The development of social attachments in infancy. Monographs of the Society for Research in Child Development, 29 (3, Serial No. 94).

Schlenker, B.R. (1986). Self-identification: Toward an integration of the private and public self. In R.F. Baumeister (Ed.), Public and private self (pp.21-62) New York: Springer-Verlag.

Schneider, D.J., & Turkat, D. (1975). Self-presentation following success or failure. Journal of Personality, 43, 127-135

Schoenfeld, N. (1999). Social behavioral correlates of the self-system in adolescence: Self-perceptions and aggressive behavior. Unpublished honour's thesis, Carleton University, Ottawa, Ontario, Canada.

Schwarz, N., & Clore, G.L. (1988). How do I feel about it? Informative functions of affective states. In K. Fiedler & J. Forgas (Eds.), Affect, cognition, and social behavior (pp. 44-62) Toronto: C.J. Hogrele.

Shaffer, D. (1999). Developmental Psychology: Childhood and adolescence. (5th ed.). Pacific Grove: Brooks/Cole Publishing Company

Shavelson, R.J. & Bolus, R. (1982) Self-concept: The interplay of theory and methods. Journal of Educational Psychology, 74, 3-17.

Shavelson, R.J., Hubner, J.J., & Stanton, G.C. (1976). Validation of construct interpretations. Review of Educational Research, 46, 407-441.

- Shrauger, J.S., & Schoeneman, T.J. (1979). Symbolic interactionist view of self-concept: Through the glass darkly. Psychological Bulletin, 86, 549-573.
- Stevens, J. (1996). Applied multivariate statistics for the social sciences. (3rd ed). New Jersey: Lawrence Erlbaum.
- Stotland, E., Thorley, S., Thomas, E., Cohen, A.R., & Zander, A. (1957). The effects of group expectation and self-esteem upon self-evaluation. Journal of Abnormal Social Psychology, 54, 55-63.
- Suls, J. & Wills, T.A. (1991). Social comparison: Contemporary theory and research. New Jersey: Lawrence Erlbaum associates.
- Swann, W.B. (1987). Identity negotiation: Where two roads meet. Journal of Personality and Social Psychology, 53, 1038-1051.
- Tabachnick , B.G., & Fidell, L.S. (1996). Using multivariate statistics. (3rd ed.). New York: Harper Collins College Publishers.
- Teri, L. (1982). Depression in adolescence: Its relationship to assertion and various aspects of self-image. Journal of Clinical Child Psychology, 11, 101-106.
- Terry, R. & Coie, J.D. (1990). Comparative models for estimating the utility of childhood predictors of adolescent disorder. In A. L. Zakriski & J.D. Coie. (1996). A comparison of aggressive-rejected and nonaggressive-rejected children's interpretations of self-directed and other-directed rejection. Child Development, 67, 1048-1070.
- Terry, R. & Coie, J.D. (1991). A comparison of methods for defining sociometric status among children. Developmental Psychology, 27, 867-880.
- Thorne, A., & Michaelieu, Q. (1996). Situating adolescent gender and self-esteem with

personal memories. Child Development, 67, 1374-1390.

Tomada, G., & Schnieder, B.H. (1997). Relational aggression, gender, and peer acceptance: Invariance across culture, stability over time, and concordance among informants. Developmental Psychology, 33 (4), 601-609.

Tyler, B. (1982). Peer relations. In J. Worell (Ed.), Psychological development in the elementary years (pp. 53-95). New York: Academic Press, Inc.

Vasta, R., Haith, M.M., Miller, S.A. (1992). Child psychology: The modern science. New York: John Wiley & Sons, Inc.

Wagner, W.G. (1991). Brief-term psychological adjustment of sexually abused children. Child Study Journal, 21, 263-276.

Wellman, N.E., & Crick, N.R. (1998). Relational and physical aggression and social-psychological adjustment in a college sample. Manuscript submitted for publication.

Wigfield, A., & Eccles, J.S. (1992). The development of achievement task values: A theoretical analysis. Developmental Review, 12, 265-310.

Wigfield, A., & Eccles, J.S. (1994). Children's competence beliefs, achievement values, and general self-esteem: Changes across elementary and middle school. Journal of Early Adolescence, 14, 107-138.

Wright, J.C., Giammarino, M., & Parad, H.W. (1986). Social status in small groups: Individual-Group similarity and the social "misfit." Journal of Personality and Social Psychology, 50 (3), 523-536.

Wylie, R.C. (1979). The self-concept: Vol. 2. Theory and research on selected topics. Lincoln: University of Nebraska Press.

Zakriski, A., Jacobs, M., & Coie, J. (1997). Coping with childhood peer rejection. In S.A. Wolchik & I.N. Sandler (Eds.), Handbook of children's coping: Linking theory and intervention (pp. 423-451). New York: Plenum Press.

Zariski, A.L., & Coie, J.D. (1996). A comparison of aggressive-rejected and nonaggressive-rejected children's interpretations of self-directed and other-directed rejection. Child Development, 67, 1048-1070.

APPENDICES

Appendix A: Consent Letter and Form

Dear Parents,

A research project concerned with children's behavior during peer conflict situations is being conducted by researchers from Carleton University. According to a Canadian publication, 6.5 million boys and 3.5 million girls are involved in fights on school grounds every year in North America. Two prominent Canadian researchers in the area of aggression have found that an episode of bullying occurs on school playgrounds once every 7.5 minutes, and an act of aggression occurs every two minutes.

The purpose of this study is to examine everyday behavioral styles (relational, physical or prosocial behavior) of fourth, fifth and sixth graders. Children will be asked to fill out questionnaires in which they will be asked what they think they would do (strategies) and what their goals would be in a conflict situation with both a best friend and a classmate they do not know very well. Children's actions during conflict situations with their peers play a large role in determining the outcome of the incident, in addition to affecting their future relationships with their peers. Thus, it is important to understand children's reasons for using different strategies and goals in various social situations.

This study will take place at the school your child attends during the months of February and March. Children will be asked to fill out two questionnaires during two group sessions in the child's regular classroom. The administration of the questionnaires will take approximately one hour per session of children's class time. Scheduling of this session will be at the teacher's convenience to minimize interference with daily class routine.

During the first session children will be asked to imagine they are a director of a play and to nominate classmates for different behavioral roles. Since children interact with other children in a variety of different social settings at school (e.g., classroom, recess, hallways etc.), they are in a sense "experts" on the different behavioral styles of their classmates. Children will then be asked to complete a second measure describing a number of conflict situations that can be encountered with both a classmate they do not know very well and a best friend. An example of a conflict situation is as follows: You and your classmates are watching TV and one of your classmates says he/she is bored and changes the channel. Children will then be asked to imagine what they would do in the situation and to present reasons for their decision. During the second session children will be asked to respond to a variety of situations in which they must decide whether they will receive accepting or rejecting social feedback from either a teacher or a peer. In addition, children will also be asked fill out a measure that assesses the frequency with which they have been victimized by either a relational or overt aggressor in the school context. Finally, children will be asked to fill out a scale which measures their self-perceptions in areas such as: social acceptance and global self-worth.

This project has been approved by the Carleton University Ethics Committee, the Ottawa-Carleton Research Advisory Committee, and the principal of your child's school. All information collected for this study is completely confidential. Questionnaires will be reviewed only by the researchers and will be used only to extract data for study and data analysis. Study results will be reported in ways that ensure complete confidentiality of individual participants, and will not appear in any school records. Once the research study is completed results will be distributed to both parents and school officials.

Participation in this study is completely voluntary and your child may choose to withdraw at any time. Additionally, only students with written permission will be allowed to participate. We would be grateful for your cooperation. Whether or not you wish to have your child participate in this study, please complete

the attached form and have your child return it by next week as we wish to be sure you have received the request. If you have any questions, please feel free to contact us at the numbers listed below. Should you have further concerns with regard to this study, please feel free to contact Dr. M. Gich (Chair, Department of Psychology Ethics Committee, 520-2600, ext. 2664) or Dr. K Matheson (Chair, Department of Psychology, 520-2600, ext.2648). Thank you for your assistance in this research project.

Sincerely,

Dr. Tina Daniels
520-2600, ext. 2686

Kendra Delveaux
Ph.D Candidate

Nancy Sinclair
M.A. Candidate

CONSENT FORM

The information collected for this project is confidential and protected under the Municipal Freedom of Information and Protection of Privacy Act, 1989.

I have read and understood the request for my son/daughter to participate in the study of Children's goals and behavioral strategies utilized with friends and non-friends in conflict situations. I have discussed it with my son/daughter and...

_____ I give permission for my child to participate.

_____ I do not give permission for my child to participate.

Date: _____

Name of Child: _____ Age: _____
(please print)

Name of Parent or Guardian: _____
(please print)

Signature of Parent or Guardian: _____

Please have your child return the signed consent form to school by next week. Thank you.

Appendix B: Frequency Distributions of Consent Rate by Classroom

Classroom	Consent rate	Percentage
1	17/27	63%
2	22/27	81%
3	21/22	95%
4	13/23	57%
5	19/28	68%
6	15/25	60%
7	24/32	75%
8	25/32	78%
9	18/22	82%
10	17/26	65%
11	18/28	64%
12	28/28	100%
13	27/30	90%
14	24/27	89%
15	24/28	86%
16	21/26	81%
17	20/27	74%
18	20/25	80%
19	16/24	67%

Appendix C: Peer Nomination Measure
(adapted from Crick & Grotpeter, 1995; Delveaux, 1997)

Physical Aggression Items:

1. Someone who, hits, kicks, or pushes other kids to get something they want. ^{bd fhi}
2. Someone who, when other kids pick on them, they try to beat those kids up ^{b f *}
3. Someone who, when they get into fights, or pushing/shoving, they blame others ^{j *}
4. Someone who just grabs things that they want from other kids. ^a
5. Someone who, when mad, hits or pushes other kids. ^{be fh *}
6. Someone who threatens to take other kids' stuff or wreck their things if they won't share ^{g *}
7. Someone who tells other kids that they will beat them up if they don't do what they say. ^{bf}
8. Someone who, when they get angry, they start fights with other kids. ^{fhi *}
9. Someone who pushes/ shoves other kids until they do what they want them to do. ^{bd fh *}
10. Someone who, when other kids tease them, they try to hit or push those kids away ^{bd fh *}

Relational Aggression Items:

1. Someone who walks away or turns their back when mad at another kid. ^a
2. Someone who tells kids that they won't play with them if the kids don't do what they want. ^b
3. Someone who, when some kids don't invite them to their parties, they try to get back at those kids by not inviting them when they have a party. ^{a *}
4. Someone who tells kids that they can't be part of the group unless they do what the group wants them to. ^a
5. Someone who, when mad, ignores people or stops talking to them. ^{d e h i}
6. Someone who tells kids that they won't be friends with them anymore if they don't do things their way. ^{e f h i}
7. Someone who, when mad, gets even by keeping the person from being in their group of friends. ^{bf h i}
8. Someone who tells kids that they won't be invited over to their house unless the kids do what they tell them to. ^{b *}
9. Someone who threatens to tell secrets that they know about other kids unless the kids do what they say. ^{d *}
10. Someone who, when mad at a person, they start being friends with someone else to get back at the person. ^c

Note. *Items have been slightly modified. Superscript identifies sources for items.

^a McNeille-Choque et al., in press

^b Crick et al., 1997

^c Delveaux, 1997

^d Wellman & Crick, 1998

^e Crick et al., 1996

^f Crick & Grotpeter, 1996

^g Delveaux, Daniels, & Clyde, 1996

^h Grotpeter & Crick, 1996

ⁱ Crick & Grotpeter, 1995

^j Dodge & Coie, 1987

Administration Instructions

For this activity, we are going to pretend that you are casting a play. Does anyone here like to act?

Now what we want each of you to do is pretend that you are a director of a play starring the students in your classroom. The director of a play has to do many things, but the most important job is to select the right people to act in the play. So, your job is to choose the students who could play each part or role best. Try to pick students who seem to fit the part in real life. For example, if I ask you to choose someone who has red hair, I would like you to choose a kid in your class who has red hair for the part.

I am going to read out some roles, and I would like you to decide which of your classmates would be the best choice for each. You can choose up to three kids, but you can't pick yourself. Also, you can pick the same kid for more than one role, if he or she fits both very well. You should write kids first names only, unless there are two kids with the same first name, then you should also write the first initial of the kid's last name. We want everyone to make their own decision, so please keep your choices to yourself, do not shout them out loud.

Does anyone have any questions? O.K., then let's get started.

Reminders:

Make sure the children write their first and last names.

Make sure the children use their cover sheets to cover up their responses at all times.

Do not let children work ahead at any time.

Answers to Common Questions:

1. Yes, they can use a peer's name as many times as they like, for different roles (i.e., they cannot put the same name down more than once for a particular role).
2. No, they cannot use their own name for any of the roles.
3. Children will be asked to nominate "up to" 3 kids for each role. If they only want to nominate one or two kids, that's fine.
4. If they want to put down more than three peers for a given role, tell them to put down the three who are most applicable first (e.g., the 3 kids who "would fit the role the best"). Then they can put additional names in the margin to the right of the blank lines (again, deal with this with individual children).

At the end of the administration of this instrument it is important to remind children not to discuss their answers with others:

I would like to remind you that you have the right to keep your answers private. I promise not to tell anyone else, like your friends, your parents, or your teachers who you chose to play these roles. We are interested in knowing your own opinions and your own thoughts about who would be best to play some of these parts in our play. We want to know what you think, not what your friends think, so we would like to ask you not to talk about your choices with any of the other kids in your class. And I want you to know that even if the other kids ask you who you chose to play these parts, you don't have to tell them anything that you don't want to. But, if you would like to talk about any of these things with your parents or teachers, or with us, that's just fine. O.K.?

What I am Like

Example:

	REALLY TRUE for me	SORT OF TRUE for me			SORT OF TRUE for me	REALLY TRUE for me	
a.	☐	☐	Some kids would rather play outdoors in their spare time.	BUT	Other kids would rather watch T.V.	☐	☐

	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 <i>good</i> at their school work.	BUT	Other kids <i>worry</i> about whether they can do the school work assigned to them.	☐	☐
2.	☐	☐	Some kids find it <i>hard</i> to make friends.	BUT	Other kids find it's pretty <i>easy</i> to make friends.	☐	☐
3.	☐	☐	Some kids do very <i>well</i> at all kinds of sports.	BUT	Others kids <i>don't</i> feel that they are very good when it comes to sports	☐	☐
4.	☐	☐	Some kids are <i>happy</i> with the way they look.	BUT	Other kids are <i>not</i> happy with the way they look.	☐	☐
5.	☐	☐	Some kids often do <i>not</i> like the way they <i>behave</i> .	BUT	Other kids usually <i>like</i> the way they behave.	☐	☐
6.	☐	☐	Some kids are often <i>unhappy</i> with themselves.	BUT	Other kids are pretty <i>pleased</i> with themselves.	☐	☐
7.	☐	☐	Some kids feel like they are <i>just as smart</i> as other kids their age.	BUT	Other kids aren't so sure and <i>wonder</i> if they are as smart.	☐	☐
8.	☐	☐	Some kids have a <i>lot</i> of friends.	BUT	Other kids <i>don't</i> have very many friends.	☐	☐
9.	☐	☐	Some kids wish they could be a lot better at sports.	BUT	Other kids feel they are good enough at sports.	☐	☐
10.	☐	☐	Some kids are <i>happy</i> with their height and weight.	BUT	Other kids wish their height and weight were <i>different</i> .	☐	☐

	REALLY TRUE for me	SORT OF TRUE for me				SORT OF TRUE for me	REALLY TRUE for me
11.	☐	☐	Some kids usually do the <i>right</i> thing.	BUT	Other kids often <i>don't</i> do the right thing.	☐	☐
12.	☐	☐	Some kids <i>don't</i> like the way they are leading their life.	BUT	Other kids <i>do</i> like the way they are leading their life.	☐	☐
13.	☐	☐	Some kids are pretty <i>slow</i> in finishing their school work.	BUT	Other kids can do their school work <i>quickly</i> .	☐	☐
14.	☐	☐	Some kids would like to have a lot more friends.	BUT	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.	BUT	Other kids are afraid they might <i>not</i> do well at sports they haven't ever tried.	☐	☐
16.	☐	☐	Some kids wish their body was <i>different</i> .	BUT	Other kids <i>like</i> their body the way it is.	☐	☐
17.	☐	☐	Some kids usually act the way they know they are <i>supposed</i> to.	BUT	Other kids often <i>don't</i> act the way they are supposed to.	☐	☐
18.	☐	☐	Some kids are <i>happy</i> with themselves as a person.	BUT	Other kids are often <i>not</i> happy with themselves.	☐	☐
19.	☐	☐	Some kids often <i>forget</i> what they learn.	BUT	Other kids can remember things <i>easily</i> .	☐	☐
20.	☐	☐	Some kids are always doing things with a <i>lot</i> of kids.	BUT	Others kids usually do things by <i>themselves</i> .	☐	☐
21.	☐	☐	Some kids feel that they are <i>better</i> than others their age at sports.	BUT	Other kids <i>don't</i> feel they can play as well.	☐	☐
22.	☐	☐	Some kids wish their physical appearance (how they look) was <i>different</i> .	BUT	Other kids <i>like</i> their physical appearance the way it is.	☐	☐
23.	☐	☐	Some kids usually get in <i>trouble</i> because of things they do.	BUT	Other kids usually <i>don't</i> do things that get them in trouble.	☐	☐
24.	☐	☐	Some kids like the kind of person they are.	BUT	Other kids often wish they were someone else	☐	☐

	REALLY TRUE for me	SORT OF TRUE for me				SORT OF TRUE for me	REALLY TRUE for me
25.	☐	☐	Some kids do <i>very well</i> at their classwork.	BUT	Other kids <i>don't</i> do very well at their classwork.	☐	☐
26.	☐	☐	Some kids wish that more people their age liked them.	BUT	Other kids feel that most people their age <i>do</i> like them.	☐	☐
27.	☐	☐	In games and sports some kids usually <i>watch</i> instead of play.	BUT	Other kids usually <i>play</i> rather than just watch.	☐	☐
28.	☐	☐	Some kids wish something about their face or hair looked <i>different</i> .	BUT	Other kids <i>like</i> their face and hair the way they are.	☐	☐
29.	☐	☐	Some kids do things they know they <i>shouldn't</i> do.	BUT	Other kids <i>hardly ever</i> do the things they know they shouldn't do.	☐	☐
30.	☐	☐	Some kids are very <i>happy</i> being the way they are.	BUT	Other kids wish they were <i>different</i> .	☐	☐
31.	☐	☐	Some kids have <i>trouble</i> figuring out the answers in school.	BUT	Other kids almost <i>always</i> can figure out the answers.	☐	☐
32.	☐	☐	Some kids are <i>popular</i> with others their age.	BUT	Other kids are <i>not</i> very popular.	☐	☐
33.	☐	☐	Some kids <i>don't</i> do well at new outdoor games.	BUT	Other kids are <i>good</i> at new games right away.	☐	☐
34.	☐	☐	Some kids think that they are good looking.	BUT	Other kids think that they are not very good looking.	☐	☐
35.	☐	☐	Some kids behave themselves very well.	BUT	Other kids often find it hard to behave themselves.	☐	☐
36.	☐	☐	Some kids <i>are not</i> very happy with the way they do a lot of things.	BUT	Other kids think the way they do things is <i>fine</i> .	☐	☐

Administration Instructions

We have some sentences here and, as you can see from the top of your sheet where it says “What am I like,” we are interested in what each of you is like, what kind of person you are like. This is a survey, *not* a test. There are no right or wrong answers. Some kids are very different from one another, each of you will be putting down something different.

First let me explain how these questions work. There is a sample question at the top, marked (a). I’ll read it out loud and you follow along with me (Examiner reads sample question). This question talks about two kinds of kids, and we want to know which kids are most like *you*.

- 1) So, what I want you to decide first is whether *you* are more like the kids on the left side who would rather play outdoors, or whether you are more like the kids on the right side who would rather watch T.V. Don’t mark anything yet, but first decide which kind of kid is *most like you*, and go to that side of the sentence.
- 2) Now, the second thing I want you to think about, now that you have decided which kind of kids are most like you, is to decide whether that is only *sort of true for you*, or *really true for you*. If it’s only sort of true, then put an X in the box under sort of true; if it’s really true for you, then put an X in that box, under really true.
- 3) For each sentence you only check one box. Sometimes it will be on one side of the page, another time it will be on the other side of the page, but you can only check *one* box for each sentence. You *don’t* check both sides, just the *one* side most like you.
- 4) OK, that one was just for practice. Now we have some more sentences which I’m going to read out loud. For each one, just check one box, the one that goes with what is true for you, what you are most like.

Appendix E: Debriefing for Children

I would like to thank you very much for helping me today. We know that some kids get along really well, but that sometimes kids argue or get into fights. What we are trying to find out is why kids sometimes do or say mean things. If we can find out why they do these things, then maybe we can find a way to help kids to get along better and be nicer to each other. The answers that you have given us will help us to do this. So, we want to thank you very much for sharing your thoughts and feelings with us today. The ideas that you have shared will be used to help other kids in the future.

Does anyone have any questions about the surveys we did today?

O.K. Thank you very much for your help.

Appendix F: Debriefing Letter for Parents

Dear Parents,

We would like to take this opportunity to thank you and your child for your participation in our study regarding children's peer relationships. The purpose of this study was to determine how children respond in various problematic situations which might occur within the school environment. In particular, we were interested in determining how children's responses might possibly differ depending on whether they experience conflict within the context of a friendship versus a relationship with a classmate they do not know as well. In addition to children's dyadic friendships, we also intend to provide a broader description of the nature of children's larger friendship groups or networks.

Friendships, in general, tend to be relatively positive experiences for children. However, there are times when even "best" friends experience conflict in their relationships. In fact, friendships can sometimes be used as a means for a child to hurt another peer or to get something that he or she wants. For example, a number of children report that they have experienced threat of friendship termination (e.g., If you don't do what I say, I'm not going to be friends with you anymore). Thus, we think it is important to examine both positive and negative aspects of children's friendship if we are to fully understand the nature of these associations.

In a few months, a preliminary report will be sent to your child's school. Within the year, a final report will be prepared. If you would like a summary of the results of the study, please contact Tina Daniels at the number listed below. Should you have further concerns with regard to this study, please feel free to contact Dr. M. Gick (Chair, Department of Psychology, Ethics Committee, 520-2600, ext. 2664), Dr. K. Matheson (Chair, Department of Psychology, 520-2600, ext.2648), or Dr. T. Daniels. Thank you for your assistance in this research project.

Thank you,

Dr. Tina Daniels
520-2600, ext. 2686

Kendra Delveaux
Ph.D Candidate

Nancy Sinclair
M.A. Candidate

**Appendix G: Means and Standard Deviations for Female Rejected
Relational Aggressors and Popular Relational Aggressors**

Variable	Female aggression status			
	Rejected relational aggressor ($n = 12$)		Popular relational aggressor ($n = 13$)	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Social acceptance	2.99	.65	3.51	.54
Behavioral conduct	3.08	.70	3.32	.41
Global self-worth	3.19	.78	3.37	.56
Physical appearance	2.94	.97	3.18	.81
Athletic competence	2.99	.75	3.01	.83
Scholastic competence	2.88	.54	3.12	.67