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Running head: Children's Goals and Strategies

**Physically Aggressive, Relationally Aggressive, and Prosocial Children:
Their Goals and Strategies in Peer Conflict Situations**

by

Kendra Delveaux

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

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the Faculty of Graduate Studies and Research
acceptance of the thesis

**“PHYSICALLY AGGRESSIVE, RELATIONALLY AGGRESSIVE,
AND PROSOCIAL CHILDREN:
THEIR GOALS AND STRATEGIES IN PEER CONFLICT SITUATIONS”**

submitted by **Kendra D. Delveaux, B. A.**

in partial fulfillment of the requirement for the degree of Master of Arts

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Abstract

This study examined the relation between 4th-, 5th-, and 6th-grade children's ratings of their goals and strategies (i.e., physically aggressive, relationally aggressive, prosocial) for dealing with peer related conflict situations. In addition, peer-nominations of children's everyday behavioral styles were used to identify groups of physically aggressive, relationally aggressive, physically plus relationally aggressive, prosocial, and average children. Results indicated that children's goals were significantly related to their strategies in conflict situations with their peers. In particular, relationally aggressive problem solving strategies were found to be positively correlated with goals of self-interest, control, revenge, avoiding trouble, maintaining relationships with the peer group, and negatively correlated with goals involving the maintenance of equality and relationships with the focus peer. Peer-nominations of children's everyday behavioral styles were not significantly related to children's self-ratings of goals, and only minimally related to their self-ratings of strategies. Gender differences were discovered on all three variables: goals, strategies, and behavioral styles.

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Prevalence of Aggressive Behavior in the Schools

Bullying and violence on the playgrounds of Canadian schools are becoming issues of increasing concern to researchers and educators alike. A recent survey of Toronto schools indicates that 15% of the students reported bullying others more than once or twice during the term, and 20% said that they had been victimized more than once or twice during the term (Ziegler & Rosenstein-Manner, 1991). Additionally, Craig and Pepler (1992) report that an episode of bullying occurs on school playgrounds once every 7.5 minutes.

Further research suggests that, not only does bullying occur frequently on the playground, but also schools appear to be ineffective in dealing with these aggressive acts. For example, Craig and Pepler (1992) report that adults intervened in only 3% of bullying episodes even though 63% of those episodes occurred within 120 feet of the school building. Similarly, victims' peers were discovered to intervene in 7.8% of bullying episodes, of which they were observed to be effective only 2.4% of the time.

Over the years, a number of intervention programs have been implemented with aggressive children, the majority of who have been identified as boys. In general, most of these programs have focused on physically and verbally aggressive behaviors. More recently, however, some researchers have begun to suggest that aggression may take other forms. For example, Crick and Grotpeter (1995) report that some girls engage in a form of relational aggression, which appears to be distinct from overt aggression (i.e.,

physical and verbal) which has often been studied by researchers in the past. Briefly, relational aggression can be defined as a type of aggression which involves harming others through purposeful manipulation and damage to their peer relationships (Crick & Grotpeter, 1995).

In the study of children's behavior, a number of researchers have suggested the utility of a social-cognitive approach (e.g., Dodge, 1986; Crick & Dodge, 1994). For example, Crick and Dodge present a model of children's social adjustment in which children are presumed to engage in a series of cognitive processes which eventually lead to the selection and enactment of a behavioral response. These researchers suggest that children's social behavior is a function of the processing of environmental cues. Therefore, variations in children's behaviors are assumed to be a result of differences at some level of children's cognitive processing.

Crick and Dodge (1994) have conducted an extensive review of the literature in the area of children's behaviors and social-cognitions. These researchers report that the behaviors exhibited by children appear to be strongly linked to a number of social-cognitive processing mechanisms (e.g., encoding and interpretation of cues, clarification of goals, response access and decision). However, similar to research regarding children's behaviors, research in the area of children's social-cognitive processes has focused mainly on the relation between physical and verbal aggression and cognition. Thus, the purpose of this study will be to extend the research in the area of children's social-

cognitions to examine the social-cognitive processes of relationally aggressive children, as well as physically aggressive and prosocial children.

Focus of the Present Study

Crick and Dodge (1994) propose six steps to their social information-processing model of children's adjustment: 1) encoding of cues; 2) interpretation of cues; 3) clarification of goals; 4) response access or construction; 5) response decision; and 6) behavioral enactment. Although variations in the social-cognitive processes of children exhibiting different behavioral styles (e.g., aggressive, prosocial, withdrawn) have been discovered at a number of levels, an examination of these cognitive processes is beyond the scope of this study. Thus, only one of these cognitive mechanisms, clarification of goals, was chosen for examination in this study.

Past research suggests that children who pursue different goals might choose to employ different behavioral strategies in social situations with their peers (Chung and Asher, 1995; 1996; Crick and Dodge, 1996; Erdley & Asher, 1996; Lochman, Wayland, & White, 1993; Slaby & Guerra, 1988). However, no research has yet been conducted regarding the social goals of children who are relationally aggressive. The major purpose of this study therefore, will be to examine the goals which relationally aggressive children pursue in conflict situations with their peers. Specifically, we intend to determine whether the goals of relationally aggressive children differ from those of children who employ physically aggressive or prosocial strategies. The answers to these questions may thus

provide some insight into the reasons why children might choose relationally aggressive as opposed to physically aggressive or prosocial strategies in conflict situations with their peers.

The organization of this paper will be as follows. First, children's aggressive behaviors, particularly relationally aggressive behaviors, will be discussed. Second, the relation of these behaviors to various social-cognitive processes will be examined. Since this study is concerned mainly with one of these social information-processing mechanisms - that of children's goals, the majority of this discussion will focus specifically on the relation between children's goals and behaviors. Gender differences in children's goals and strategies will also be discussed, due to the fact that gender differences in these variables have been discovered in previous research (Chung & Asher, 1995; 1996; Ford, 1982; Slaby & Guerra, 1988). Finally, the present study will be discussed in detail with regards to the purpose, hypotheses, methods, results, and a brief discussion of the findings.

Definitions of Aggressive Behavior

Aggression, in the psychological literature, has generally been referred to as behavior that is intended to harm or injure another organism (e.g., Berkowitz, 1993; Maccoby & Jacklin, 1974). In contrast, Buss (1961) suggests that the concept of intent is both awkward and unnecessary, and defines aggression instead as "a response that delivers noxious stimuli to another organism" (p.1). Many researcher, however, suggest

that the concept of intent is important in distinguishing between actual aggressive actions and accidental harm or injury to others (Baron, 1977; Rule, 1974). Thus, Baron (1977) proposes the following definition of aggressive behavior, "aggression is any form of behavior directed toward the goal of harming or injuring another living being who is motivated to avoid such treatment" (p. 7).

Hostile (Reactive) versus Instrumental (Proactive) Aggression

Although aggression has commonly been defined as involving intent to harm, this intent to injure another person may be the main goal in itself, or it may simply be the means to an end. Therefore, many researchers distinguish between hostile (angry) aggression (i.e., the primary goal is injury to the victim) and instrumental aggression (i.e., injury to the victim is secondary to the acquisition of some other goal; Baron, 1977; Buss, 1961; Geen, 1990; Rule, 1974). This dimension of aggressive behavior has also been referred to as reactive-proactive (Crick & Dodge, 1996; Dodge & Coie, 1987). These researchers define reactive (hostile) aggression as an angry, defensive reaction to perceived threat or provocation. Thus the purpose of this type of aggressive behavior is to relieve the perceived threat. In contrast, proactive (instrumental) aggression is a deliberate behavior that is controlled by external reinforcements and is presumed to occur in the absence of immediate provocation or threat. The purpose of instrumental aggression is to obtain some specific positive outcome.

It appears, therefore, that aggressive behaviors can be differentiated in terms of their purpose and their reinforcing consequences. However, this definition of aggressive behavior is still very broad, and encompass a large spectrum of behaviors. For example, teasing, gossiping, social exclusion, verbal insults, and physical attacks might all be classified as behaviors that deliver noxious stimuli and are intended to harm or injure another organism. Consequently, some researchers have suggested that aggressive behaviors can also be differentiated in terms of the type of behavior that is employed in order to deliver the aggressive action. For example, Buss (1961) distinguishes among physical and verbal types of aggression. Physical aggression is defined as an assault against an organism through the use of body parts or weapons, whereas verbal aggression can be defined as a vocal response that delivers noxious stimuli to another organism. Buss also suggests that physical and verbal aggression may be direct (e.g., hitting someone) or indirect, in which case the aggressor may avoid counterattack since he or she is more difficult to identify (e.g., setting fire to a neighbor's house).

Indirect Aggression

A great deal of past research has focused on physical and verbal forms of aggression (see Hyde, 1984; Maccoby & Jacklin, 1974 for reviews). There have been a few studies, however, which attempted to assess more "indirect" or "psychological" forms of aggressive behavior. For example, Feshbach (1969) describes indirect aggression as a "pro-social" (i.e., socially approved) form of aggressive behavior which

generally involves behaviors such as social exclusion and rejection. Feshbach assessed this type of aggression through observations of children's ignoring, avoiding, refusing, and excluding behaviors. Similarly, Feshbach and Sones (1971) attempted to examine the negative, rejecting attitudes and behaviors displayed by a pair of friends towards a newcomer to the group. In this study, therefore, indirect aggression was assessed by asking children to rate a newcomer to a friendship group in terms of intelligence, appearance, social desirability, social acceptance, and leadership. Observations including latency of initial verbal contact with the newcomer and verbal rejection versus verbal incorporation of the newcomer's ideas were also obtained.

Unfortunately, in these studies (Feshbach, 1969; Feshbach & Sones, 1971) definitions of indirect aggression were often vague and methods of assessment varied between the two studies. Some researchers, however, have attempted to more clearly delineate this type of aggression in terms of a specific operational definition and a consistent, reliable measure of assessment (e.g., Bjorkqvist, Lagerspetz, & Kaukiainen, 1992; Lagerspetz, Bjorkqvist, & Peltonen, 1988).

Indirect aggression has been described by Bjorkqvist et al. as "a type of behavior in which the perpetrator attempts to inflict pain in such a manner that he or she is more likely to avoid counteraggression and, if possible, to remain unidentified" (p. 118). These researchers suggest that indirect aggression generally involves some sort of social manipulation, such as using other individuals as a means of attack or manipulating the

social structure in order to exclude an individual from the group. Some examples of this type of aggressive behavior might include: "gossiping" or "becoming friendly with someone else as revenge".

The definition of indirect aggression presented by Bjorkqvist et al. (1992) and Lagerspetz et al. (1988) appears to involve two parts: 1) an indirect approach (i.e., an attempt to inflict pain in such a manner that it seems there has been no intention to hurt at all) and 2) a social aspect (i.e., indirect aggression generally involves the use of some type of social manipulation). However, a number of the items labeled as "indirect aggression" in the Lagerspetz et al. study (determined by factor analysis) appear to have only one, or in some cases, none of these characteristics. For example, the indirect aggressive items "sulks" and "argues" (Lagerspetz et al.) do not appear to be particularly indirect or require a great deal of social manipulation. Additionally, Bjorkqvist et al., 1992 later lists "sulks" as a withdrawal item among the 15-year-olds that they studied, and "argues" among the direct verbally aggressive items. In fact, it appears that the measure used by Lagerspetz et al. confounds indirect aggression with nonverbal aggression (Crick & Grotpeter, 1995). Thus, a more specific definition of this type of aggression is needed and a reliable assessment instrument, one that is not confounded with other types of aggressive behavior, is still required. An attempt was made, by Crick and Grotpeter (1995), to develop such a definition. This type of aggressive behavior, however, was termed relational, as opposed to indirect, aggression by these researchers.

Relational Aggression

Crick and Grotpeter (1995) suggest that relational aggression generally involves "harming others through purposeful manipulation and damage of their peer relationships" (p. 711), and "includes behaviors that are intended to significantly damage another child's friendships or feelings of inclusion by the peer group" (p. 711). Some examples might include: angrily retaliating against a child by excluding him or her from one's play group or purposefully withdrawing friendship or acceptance in order to hurt or control a child. In addition, Crick and Grotpeter have developed a reliable measure of relational aggression, one which does not confound this type of aggression with other forms. This is illustrated by the fact that all of the items used to assess relational aggression in this measure correspond to Crick and Grotpeter's definition of the behavior, which has not always been the case in previous studies (e.g., Lagerspetz et al., 1988).

The definition of relational aggression presented by Crick and Grotpeter appears to be very similar to that of indirect aggression presented earlier by Bjorkqvist et al., 1992 and Lagerspetz et al. 1988. Crick and Grotpeter's definition, however, appears to be an improvement over these definitions for two reasons. First, social manipulation, which appears to be the most salient aspect of relationally aggressive behavior, is emphasized. Secondly, the generally indirect nature of this type of aggression, although acknowledged by the researchers, is not made an intrinsic part of the definition. In fact, an examination of the items used by Crick and Grotpeter to assess relational aggression, suggests that

although this type of aggressive behavior is generally less overt (i.e., less easily observed) than physical and verbal aggression, it may be either direct or indirect. For example, the item "tells friends they will stop liking them unless they do what they say" is quite direct. On the other hand, "When mad, gets even by keeping the person from being in their group of friends" is a more indirectly aggressive item.

Thus, perhaps the distinction to be made here, is the difference between "overt" and more "covert" behaviors. Specifically, whereas physical and verbal aggression have been labeled overt behaviors (Crick, 1995; 1996; Crick, Bigbee, & Howes, in press; Crick, Casas, & Mosher, in press; Crick & Grotpeter, 1995; McNeilly-Choque, Hart, Robinson, Nelson, Olsen, in press), relational aggression might be described as a more covert behavior. In fact, it is probable that physical and relational aggression may be defined in terms of both of these dimensions: overt-covert and direct-indirect.

Specifically, physical aggression appears to be a more overt behavior, in that it is generally more apparent to outside observers such as parents or teachers. However, it is possible that physical aggression might be performed in either a direct or indirect manner (i.e., beating up a child on the playground, or getting someone to beat the child up for you). Relational aggression, on the other hand, appears to be more a more covert or surreptitious behavior. Similar to physically aggressive behaviors, it is possible that relationally aggressive behaviors may be either direct or indirect, as has been illustrated in previous examples.

"Indirect" versus "Relational" Aggression in the Present Study

Due to the apparent superiority of Crick and Grotpeter's (1995) measure of relational aggression over previous operational definitions, the present study will focus on relationally aggressive behaviors, whether direct or indirect, as described by these researchers. Unfortunately, very little research has been conducted using Crick and Grotpeter's definition and assessment instrument. Indirect aggression, however, appears to be a very similar construct to that of relational aggression. In fact, it may be that indirect aggression (Bjorkqvist et al., 1992; Cairns, Cairns, Neckerman, Ferguson, & Gariepy, 1989; Lagerspetz et al., 1988; Feshbach, 1969; Feshbach & Sones, 1971) is a sub-type of relational aggression, specifically - indirect relational aggression, whereas relational aggression (Crick, 1995; 1996; Crick, Bigbee, & Howes, in press; Crick, Casas, & Mosher, in press; Crick & Grotpeter, 1995; McNeilly-Choque, Hart, Robinson, Nelson, Olsen, in press) assesses both types (i.e., direct and indirect).

Due to the paucity of research in the area of relational aggression, further evidence related to the distinctiveness of relationally aggressive behaviors, the relation to social-psychological adjustment, and gender differences in aggressive behavior will be presented in terms of both "relational" (e.g., Crick, 1995; 1996; Crick, Bigbee, & Howes, in press; Crick, Casas, & Mosher, in press; Crick & Grotpeter, 1995; McNeilly-Choque, Hart, Robinson, Nelson, Olsen, in press) and "indirect" (e.g., Bjorkqvist et al., 1992; Cairns et al, 1989; Lagerspetz et al., 1988; Feshbach, 1969; Feshbach & Sones, 1971)

aggression. It is important to keep in mind, however, that these two types of aggressive behavior are not synonymous. Additionally, the measures used to assess indirect aggression may be confounded with other types of aggressive behavior (e.g., Lagerspetz et al., 1988). Thus, although research will be presented in terms of both types of aggression, results of studies regarding relational aggression will be interpreted with greater confidence than those related to indirectly aggressive behaviors.

Relational Aggression

Evidence for a Distinct Construct

Recent research suggests that relationally aggressive behaviors can be reliably distinguished from other forms of behavior (e.g., overt aggression, prosocial, and withdrawn behavior). Two different areas of research provide evidence for the distinctiveness of this construct: factor analytic evidence and children's perceptions of relationally aggressive behaviors.

Statistical Evidence: Factor Analysis

Crick and Grotpeter (1995) studied third- through sixth-grade children in an attempt to determine the degree to which relational aggression is distinct from overt aggression (i.e., physical and verbal aggression). Peer perceptions of subject's behaviors were obtained through the use of the peer nomination measure. This instrument consisted of a peer sociometric and four behavioral subscales: relational aggression (e.g., tells other kids they will stop liking them if they don't do what they say), overt aggression (e.g.,

starts fights), prosocial behavior (e.g., helps others), and isolation (e.g., plays alone a lot). Children were provided with a class roster and asked to nominate up to three classmates for each of the items. The number of nominations received by the children on each of the items were summed and standardized across classrooms. These standardized scores were then combined to obtain a total score for each subscale.

Factor analysis of the scores received from the peer nomination instrument yielded the four predicted factors: prosocial behavior, overt aggression, relational aggression, and isolation. The items which loaded on the relational aggression factor were: when mad gets even by keeping the person from being in their group of friends, tells friends they will stop liking them unless friends do what they say, when mad at a person, ignores them or stops talking to them, tries to keep certain people from being in their group during activity or play time. These researchers also report that the correlation between relational and overt aggression was .54. Crick and Grotpeter (1995) suggest that, “The moderate magnitude of this correlation is what one would expect for two constructs that are hypothesized to be *different* forms of the *same* general behavior (i.e., there should be a moderate association rather than a low or high association). Overall, these analyses provide initial evidence that relational aggression is a distinct construct, and that, although related, it is relatively independent of overt aggression” (p. 715).

Relationally aggressive behaviors have been reliably distinguished from other forms of aggressive behavior based on teacher ratings, as well as peer-nominations, of

children's behavior. Crick (1996) asked teachers of third through sixth grade children to complete a measure of children's social behavior. This instrument consisted of 15 items: 7 of which assessed relational aggression, 4 that assessed overt aggression, and 4 that assessed prosocial behavior. These items were designed to parallel those of the peer-nomination instrument (Crick & Grotpeter, 1995) which was also presented to the children in this study. Teachers were asked to rate, on a five-point scale, the extent to which each item was true for each of the children in their class. Factor analysis of the teacher assessment items revealed the three predicted factors: relational aggression, overt aggression, and prosocial behavior. The psychometric properties of the peer-nomination instrument were not assessed in this study, presumably due to the fact that the adequacy of this measure had been assessed previously (Crick & Grotpeter, 1995).

In addition to these significant findings discovered among school-aged children, the results of other studies suggest that relational aggression can be reliably distinguished from other forms of behavior among preschool children (Crick, Casas et al., in press; McNeilly-Choque et al., in press). Crick, Casas et al. (in press) investigated the prevalence of relationally aggressive behavior among a preschool sample by using an age-appropriate adaptation of the peer-nomination measure (Crick & Grotpeter, 1995) and the teacher-rating scale (Crick, 1996). Factor analysis of the peer-nomination measure again distinguished relationally aggressive items from overt aggression and

prosocial behavior. These same three factors were discovered through a factor analysis of the teacher-rated items, in addition to one other factor: depressed affect.

It appears that relationally aggressive behaviors can also be reliably distinguished from instrumental and bullying forms of aggression. McNeilly-Choque, Hart, Robinson, Nelson, Olsen (in press) developed their own peer-nomination and teacher-rating instruments (based on the measures developed by Crick, Casas et al., in press), plus a number of additional items included to assess instrumental and bullying aggression. Results of this study were similar to that of the Crick, Casas et al. study, in that a factor analysis of the peer-nomination measure distinguished relational from overt aggression. However, results of a factor analysis of the items rated by the teachers yielded four factors: bullying, instrumental aggression, and two forms of relational aggression - verbal and nonverbal.

In addition to the evidence regarding relational aggression, research suggests that indirectly aggressive behaviors can also be reliably distinguished from other types of behavior (e.g., physical or verbal aggression, withdrawal, prosocial behavior). For example, Lagerspetz et al. (1988) presented 11- and 12-year-old children with a list of behavioral characteristics and asked them to rate the extent to which their peers engaged in those behaviors. Factor analysis of these responses revealed that "indirect means" of aggressive behavior emerged as a separate factor from "direct means" of aggression and "peaceful means" of solving conflicts. Items which loaded on the indirect aggression

factor in this study were: tells untruth behind back, starts being somebody else's friend in revenge, abuses, says to others: "Let's not be with him/her", argues, sulks, tries to put the other to his/her side, acts as if didn't know.

Bjorkqvist et al. (1992) conducted a similar study, using a similar list of items. These researchers report that among 8-year-old children, indirectly aggressive items could be reliably distinguished from directly aggressive and withdrawal items. Items loading on the indirect aggression factor among the 8-year-old cohort were: gossips, says "I'm not your friend", becomes friendly with someone else as revenge, and suggests shunning of the other. Interestingly, the item "shower abuse", which loaded on the indirect aggression factor in Lagerspetz et al.'s (1988) study, loaded on the direct aggression factor among the 8-year-olds in this study. Additionally, the item "sulks", which also loaded on the indirect aggression factor in Lagerspetz et al.'s study, loaded here on the withdrawal factor.

Exploratory factor analysis of items presented to 15-year-olds in Bjorkqvist et al.'s (1992) study revealed four different factors: indirect aggression, direct physical aggression, direct verbal aggression, and withdrawal. Items identified as indirect among the 15-year-old cohort were similar to those identified among the 8-year-old cohort (i.e., gossiping, suggesting shunning of the other, spreading vicious rumors as revenge, breaking contact with the person in question, and becoming friends with someone else as revenge). Again, some of the items which were previously discovered to load on the

indirect aggression factor (i.e., sulking, showering abuse, and arguing; Lagerspetz et al., 1988) were discovered to load on different factors among the 15-year-olds in this study (e.g., sulking loaded on the withdrawal factor, and showering abuse and arguing loaded on the factor labeled direct verbal aggression).

Thus, the results of these studies regarding indirect aggression (i.e., Bjorkqvist et al., 1992; Lagerspetz et al., 1988) are less convincing than those presented regarding relationally aggressive behaviors (Crick, 1996; Crick & Grotpeter, 1995; Crick, Casas et al., in press; McNeilly-Choque et al., in press). Although Bjorkqvist et al. and Lagerspetz et al. were able to distinguish indirect aggression from other types of behavior, it appears that the measures used to assess indirect aggression in one, if not both of these studies, was confounded.

On the whole, however, the results of these studies suggest that a relational form of aggression can be reliably distinguished from other forms of behavior (particularly overt aggression) based on information generated from both peers (Crick, Casas et al., in press; Crick & Grotpeter, 1995; McNeilly-Choque et al., in press) and teachers (Crick, 1996; Crick, Casas et al., in press; McNeilly-Choque et al., in press). In fact, it may be possible to distinguish, not only between sub-types of general aggressive behaviors, but between sub-types of relationally aggressive behaviors (i.e., verbal and non-verbal) as well (McNeilly-Choque et al., in press). However, since these results represent the

findings of only one study, more research is needed before any firm conclusions can be drawn.

Children's Perceptions

Evidence for the distinctiveness of relational aggression might also be obtained through an examination of children's perceptions of aggressive behaviors. Crick, Bigbee et al. (in press) attempted to assess third- through sixth-grade children's normative beliefs about aggression. Normative beliefs were defined by these authors as children's perceptions of how often aggressive behaviors actually occurred in their peer groups. Children, in this study, were asked a series of open-ended questions in order to assess "what most girls do when they are mad at (or want to be mean to) another boy or girl" and "what most boys do when they are mad at (or want to be mean to) another boy or girl". A content analysis approach was then used to assign children's responses to one of a number of behavioral categories (e.g., physical aggression, verbal threats, verbal insults, nonverbal aggression, relational aggression, telling, and avoidance). Crick, Bigbee et al. report that children in this study frequently and spontaneously cited relationally aggressive behaviors as involving anger and intent to harm, even though they had not been prompted to do so. These results suggest that relationally aggressive behaviors are viewed by children as being "aggressive", and also that these relationally aggressive acts are salient to children.

Delveaux, Daniels, and Clyde (1996) examined children's perceptions of three different types of aggression: physical, verbal, and relational. Children in grades 1 through 6 were presented with descriptions of three hypothetical aggressive characters corresponding to these three different types of aggressive behavior. Physical aggression generally involved harming one's peers through the use of some physical action. Verbal aggression made reference to either verbal threats (i.e., threatening some physical action) or verbal insults (i.e., insulting or making fun of one's peers). Relational aggression, consistent with Crick and Grotpeter's (1995) definition, consisted of harming others through purposeful manipulation and damage to their peer relationships (i.e., attempting to damage a child's friendships or feelings of inclusion by the peer group).

A number of differences were discovered in children's perceptions of these three types of aggressive behaviors. First, children reported differences in their perceptions of the consequences of engaging in physically, verbally, or relationally aggressive behaviors. For example, children mentioned sanctional outcomes (e.g., they'll get sent to the principal's office) more often for physical and verbal, than for relationally aggression. Additionally, more children mentioned negative future consequences (e.g., when they grow up, they might not have a very good job) for the physically aggressive than for the verbally or relationally aggressive character. Finally, more children expected negative relational consequences (e.g., the other kids won't like them anymore) for the relationally than for the physically or verbally aggressive character.

Children were also asked four questions which required them to compare across the three aggressive characters: 1) "Which of these three kids would you most like to be friends with?"; 2) "Which of these three kids would you least like to be friends with?"; 3) "Which of these three kids do you think is the meanest?"; and 4) "Which of these three kids would make you feel the worst if they did this to you?" The children were required to choose one of the three aggressive characters (physical, verbal, or relational) in response to each of these questions.

Results indicate that the character children would most like to be friends with was the relationally aggressive character. However, this finding was a result of a forced-choice question. In actuality, many children said that they wouldn't really like to be friends with any of the three characters, but if they had to choose one, they would select the relationally aggressive character. In contrast, the character that children reported they would least like to be friends with was the physically aggressive character. They also perceived the physically aggressive character to be the meanest. No significant differences were evident in children's perceptions of which character would make them feel the worst if that particular aggressive behavior had been directed toward them. Among children in grades 3-4, however, boys were more likely to report that physical aggression would make them feel the worst. In contrast, girls were more likely to report that relational aggression would make them feel the worst if it had been directed toward them. The results of the last question must be interpreted with caution, however, as the

sample size was quite small (i.e., the total number of third- and fourth-grade children was 20).

In summary, the fact that children perceive a number of differences among these three types of aggressive behavior, in addition to being able to make direct comparisons among them, suggests that they are able to perceive these three types of aggression as distinct from one another. Thus, it may be important in future research to distinguish among these types of aggressive behaviors, and examine them as distinct constructs rather than as one global measure of "aggressive behavior". In fact, researchers have discovered that, not only can these different types of aggressive behaviors (e.g., physical, verbal, relational) be reliably distinguished from each other, but also that children who engage in these different types of aggression may differ in terms of other characteristics. For example, it appears that boys may be more likely to engage in physically aggressive behavior and girls in relationally or indirectly aggressive behaviors (Bjorkqvist et al., 1992; Crick, Casas et al., in press; Crick & Grotpeter, 1995; Feshbach, 1969; Feshbach & Sones, 1971; Lagerspetz et al. 1988; McNeilly-Choque et al., in press).

Gender Differences

Over the years, a great deal of research has been conducted in the area of aggression, and in general, most studies have found males to exhibit a higher level of aggression than females (see Maccoby & Jacklin, 1974 for a review). It appears, however, that the actual magnitude of these differences may not be that large (Hyde, 1984), and

may vary according to various features of the study, such as type of aggression assessed, setting, method of assessment, and age of the subjects (Eagly & Steffen, 1986; Hyde, 1984). It is important to note that, in past years, a great deal of research has been conducted in the area of physical, and sometimes verbal aggression. Aggressive behaviors, in these studies, have often been defined as "hitting someone", "willingness to deliver a shock", or "threatening to harm someone". Crick and Grotpeter (1995), however, suggest that the forms of aggression which have generally been assessed in the past are more salient for boys than for girls. Accordingly, gender differences in aggressive behavior (i.e., that males are more aggressive than females) may reflect "a lack of research on forms of aggression that are relevant to young females rather than an actual gender difference in levels of overall aggressiveness" (p. 710). Consistent with this hypothesis, a number of researchers have attempted to examine the incidence of indirectly or relationally aggressive behaviors among boys' and girls' peer groups.

Indirect Aggression

Perhaps among the first to recognize that aggression may be displayed in a manner other than physical or verbal, were Feshbach (1969) and Feshbach and Sones (1971). These researchers suggested that aggression may take a more indirect form than that which had previously been assessed in the literature. For example, Feshbach (1969), reported that pairs of first grade girls were initially more unkind and indirectly aggressive to a peer with whom they were relatively unfamiliar. Similarly, in examining a group of

seventh- and eighth-grade students. Feshbach and Sones (1971) discovered pairs of female friends to display more negative, rejecting attitudes toward a same-sex stranger than did pairs of male friends.

Many years later, Lagerspetz et al. (1988) conducted a study investigating the incidence of indirect aggressive behaviors among 11- and 12-year old children. Children were given a list of items (e.g., starts being somebody else's friend in revenge, kicks or hits, and tries to put the other to his/her side) and asked to rate the extent to which they, and their same-sex peers engaged in that type of behavior. Results indicated that girls tended to employ more indirect means of aggressive behavior (e.g., starts being somebody else's friend), whereas boys used more direct means (e.g., kicks or hits).

A similar study, using the same method and a comparable list of items, was conducted by Bjorkqvist et al. (1992) with 8- and 15-year-old children. Among the 8-year-old cohort, boys were discovered to display more direct aggression and girls more withdrawal, but there were no significant gender differences in terms of indirect aggression (although girls did score somewhat higher on this scale). In terms of the 15-year-old cohort, boys scored higher on the physical aggression scale (e.g., kicking/striking, pushing/shoving), whereas girls scored higher on indirect aggression (e.g., spreading vicious rumors, becoming friends with someone else).

Findings reported by Verlaan and Schwartzman (1996) provide some support for the hypothesized gender differences in physical and relational (indirect) aggression;

however, results are mixed. These researchers presented children aged 10 to 13 years with the measure of indirect aggression developed by Lagerspetz et al. (1988). Both between gender and within gender analyses of children's aggressive behavior were conducted. Comparisons between boys and girls, indicated that boys were rated by their same-sex peers as displaying more physical and verbal aggression than girls. However, no significant differences were discovered in the levels of indirect aggression displayed by boys and girls. In terms of within gender differences, these researchers report that verbally aggressive strategies were used more frequently than either physically or indirectly aggression strategies by both boys and girls. However, boys used physical aggression more frequently than indirect aggression, whereas the opposite was true for girls (i.e., indirect aggression was used more frequently than physical aggression).

The results reported by Verlaan and Schwartzman (1996) are puzzling, given previous research which suggests that girls are more indirectly aggressive than boys (e.g., Bjorkqvist et al., 1992; Feshbach, 1969; Feshbach & Sones, 1971; Lagerspetz et al., 1988). One possible explanation for these findings could be the fact that the measure used in this study (i.e., The Direct and Indirect Aggressive Strategies Questionnaire; Lagerspetz et al., 1988) appears to confound indirect aggression with other types of aggressive behavior. Therefore, any results obtained from these studies (i.e., Lagerspetz et al.; Verlaan & Schwartzman, 1996) must be interpreted with caution. Although most of the research in this area supports the hypothesis that girls are more relationally aggressive

than boys. more research is needed. using a "pure" measure of indirect aggression. before any firm conclusions can be drawn. Since Crick and Grotpeter (1995) appear to have developed a reliable measure of relational aggression. one that does not confound this type of behavior with any other. research regarding gender differences in relationally aggressive behavior will be presented next.

Relational Aggression

Crick and Grotpeter (1995) hypothesized that girls' aggressive behavior. like boys'. would be consistent with their social concerns. Consequently. they proposed that girls would be more likely to harm others through relational aggression. which involves harming others through purposeful manipulation and damage to their peer relationships. whereas boys would be more likely to be involved in overt forms of aggressive behavior. such as verbal and physical aggression.

These authors studied the aggressive and prosocial behaviors of third- through sixth-grade children. Peer perceptions of subject's behaviors were obtained through the use of a peer nomination measure. This instrument consisted of a peer sociometric and four behavioral subscales: relational aggression (e.g., tells other kids they will stop liking them if they don't do what they say), overt aggression (e.g., starts fights), prosocial behavior (e.g., helps others), and isolation (e.g., plays alone a lot). Children were provided with a class roster and asked to nominate up to three classmates for each of the items. The number of nominations received by the children on each of the items were

summed and standardized across classrooms. These standardized scores were then combined to obtain a total score for each subscale. Children with scores one standard deviation above the mean for relational aggression, overt aggression, or both were considered to be aggressive. Children's relational and overt aggression scores on this measure were then used to classify children into four groups: nonaggressive (overt and relational aggression scores both low), overtly aggressive (relational scores low and overt scores high), relationally aggressive (relational scores high and overt scores low), and combined overtly and relationally aggressive (relational and overt aggression scores both high).

Using this procedure, 371 nonaggressive, 41 overtly aggressive, 46 relationally aggressive, and 33 overtly plus relationally aggressive children were identified. Approximately equal numbers of males and females were classified as nonaggressive (73% and 78.3% respectively). However, the overtly aggressive group consisted mainly of boys (15.6% versus .4% of the girls), the relationally aggressive group consisted primarily of girls (17.4% versus 2% of the boys), and the combined group consisted of both boys and girls (9.4% and 3.8% respectively). To further assess the relation between gender and peer-perceptions of aggressive behavior, two analyses of variances were conducted in which girls were found to be significantly more relationally aggressive than boys, and boys significantly more overtly aggressive than girls. Moreover, an analysis of the number of boys and girls classified into each of these categories suggests that, if one

considers both relational and overt forms of aggression, both boys and girls can be classified as aggressive (27% of the boys and 21.7% of the girls).

Gender differences in relational aggression have also been examined among preschool populations (Crick, Casas, et al., in press; McNeilly-Choque, et al., in press). Results of these analyses differ, depending on the method of assessment (i.e., peer-nominations, teacher-ratings, or observations). Crick, Casas et al. report that boys were rated, by teachers, as significantly more overtly aggressive than girls, where as the opposite was true for relational aggression.. Also, when extreme groups were identified (i.e., relationally aggressive, overtly aggressive, and relationally plus overtly aggressive), the overtly aggressive and the combined group consisted mainly of boys and the relationally aggressive group consisted mainly of girls. However, an analysis of children's peer-nominations of aggressive behavior revealed no significant gender differences whatsoever.

Fairly similar results were reported by McNeilly-Choque et al. (in press). Factor analysis of the teacher-rated items in this study revealed four different factors including two types of overt aggression (i.e., bullying and instrumental) and two types of relational aggression (i.e., verbal and nonverbal). Results indicate that boys were significantly more instrumentally aggressive than girls, and that girls were significantly more relationally aggressive (verbal form only) than boys. No significant differences were discovered in terms of nonverbal relational or bullying aggression. In terms of peer-nominations of

aggressive behavior. boys were reported to be more overtly aggressive than girls. However, similar to the findings of Crick, Casas et al. (in press) no significant gender differences were discovered in terms of relationally aggressive behaviors. However, McNeilly-Choque et al. also assessed children's aggressive behavior through observational methods. An analysis of the observational data indicated that boys were more overtly aggressive than girls, and girls were more relationally aggressive than boys.

Results obtained from observations appear to support the findings obtained from teacher-ratings of aggressive behavior. The reason for the lack of significant findings obtained from preschooler's peer-reports of behavior is unclear. It may be that these results reflect an actual absence of gender differences in relationally aggressive behavior among preschool children. This explanation seems unlikely, however, due to the fact that both teachers and observers rated girls as being more relationally aggressive than boys. However, it is possible that young children's reports of aggressive behavior among their peers may be less reliable than those of older children. This may be due to factors such as actual observation of aggressive behaviors, difficulty understanding the peer-nomination task, or difficulty distinguishing among different types of aggressive behaviors.

In fact, the latter explanation for these findings seems likely. Research suggests that the reliability and validity of children's peer-ratings may vary based on the rater's age, as well as the behaviors to be rated. For instance, Ladd and Mars (1986) studied preschoolers' ratings of behaviors (i.e., physical aggression, verbal aggression, social

conversation, cooperative play, solitary play, and teacher-oriented behaviors). These researchers report that preschoolers' ratings of aggression and cooperative play were fairly stable over time and showed adequate correlation with teacher ratings and observational measures. However, stability ratings and relation to other measures were not as great for other behaviors (i.e., solitary play and teacher-oriented behaviors).

Research also indicates that behaviors which might be reliably rated by older children, might be less reliably rated by younger children. For example, Younger, Schwartzman, and Ledingham (1986) report that fourth- and seventh-grade children were better able to rate the withdrawn behaviors of their peers than were first grade children. In contrast peer-ratings of aggression were rated equally well at all age groups. However, the type of aggression assessed in this study was overt, and no attempt was made to assess the reliability of children's peer-ratings of relationally aggressive behaviors. In fact, it may be that children's ratings of relationally aggressive behaviors may be less reliable than those of overtly aggressive behaviors. Some evidence for this hypothesis can be found in a study conducted by Delveaux et al. (1996), who report that children exhibited greater memory for physically than for relationally aggressive behaviors.

Additionally, based on a factor analysis of a number of aggressive items rated by preschool children, McNeilly-Choque et al. (in press) reports that children were able to distinguish between relational and overt aggression. However, these children were not as sophisticated as teachers in distinguishing between sub-types of overt aggression (i.e.,

instrumental and bullying). Thus, even though relational and overt aggression were reliably distinguished from one another through the use of factor-analytic techniques, it is still possible that preschool children may have more difficulty distinguishing between these two types of aggressive behavior than older children. More research is needed, therefore, in order to determine the reliability of young children's peer-ratings of relationally aggressive behaviors.

Possible Reasons for Gender Differences in Aggressive Behavior

A number of possible reasons have been postulated for children's use of relationally aggressive behaviors, and especially for why this behavior appears with greater frequency among girls' peer groups than among boys'. Specifically, these hypotheses are related to the friendship structures of boys and girls peer groups, sex stereotypes and degree of parental supervision for boys and girls, and level of maturation (e.g., verbal and social skills).

Friendship Structure. A large body of research exists, in the area of children's friendships, regarding sex segregation in children's peer groups (see Daniels-Beirness, 1989; Erwin, 1993; Lockheed & Klein, 1985; Maccoby, 1986 for reviews). In general, this research suggests that school-aged, and even preschool children, prefer same- to opposite-sex playmates, and that the degree of sex-segregation appears to be quite large, even at young ages. Moreover, researchers also report that girls' friendship groups tend to be smaller and closer than boys' groups (e.g., Bjorkqvist et al., 1992; Lagerspetz et al.,

1988; see also Block, 1983; Daniels-Beirness, 1989; Erwin, 1993; Maccoby, 1986 for reviews). Girls tend to have one or two close friends, whereas boys often cluster in larger groups of at least three or more. Consequently, Bjorkqvist et al. (1992) suggests that the "tighter" friendship structure characteristic of girls' peer groups may facilitate the use of the manipulation of friendship patterns as an aggressive strategy. Presumably, the same type of manipulation would not work as well in boys' peer groups because it would be more difficult to employ behavior such as social exclusion as a means of control if boys groups are larger and not as "close".

Sex Stereotypes and Parental Supervision. Many stereotypes regarding the aggressive behavior of boys and girls exist in our society. In fact, it appears that children at least as young as five years of age perceive boys to be more aggressive and girls to be more gentle and "soft-hearted" (Neto, Williams, & Widner, 1991; Williams, Bennett, & Best, 1975; Williams, & Best, 1982). Moreover, Block (1983) reports a great expectation, by parents, for girls to display "ladylike" behavior. Thus, societal and parental expectations might have a large influence on girls' behavior. Specifically, girls may be less likely to engage in overtly aggressive behavior, since it is generally considered less acceptable for them to do so.

In addition to the sex stereotypes which exist regarding aggressive behavior, Maccoby (1986) suggests that girls are likely to be more closely supervised than are boys. It appears that boys are more likely to play in public places, whereas girls are more likely

to play at home, or close to home, where they can be more closely supervised. Moreover, boys are regularly assigned chores which take them out of the house and away from home. In contrast, girls are expected to do more chores around the house, such as cleaning and baby-sitting (Block, 1983). Thus, since girls are often under more surveillance than boys, it is possible that they have to learn less obvious means of manipulation, in order to avoid punishment from parents who are often close by.

It is conceivable that a relational style of aggressive behavior, which might be less easily observed by adults, allows girls to obtain their goals while simultaneously maintaining the facade of being a well-behaved young girl. In fact, Maccoby (1986) suggests that "girls may have a better reputation for being prosocial than they deserve...It is possible that certain behaviors that girls display frequently during interaction (e.g., smiling, agreeing) cause others to believe that they have benign intent, even when they do not, and this augments their reputation for altruism unrealistically" (p. 279). Consequently, girls may learn to be aggressive in ways that are less visible to adults than are boy's aggressive behaviors.

Maturation: Verbal and Social Skills. Bjorkqvist et al. (1992), suggests that the use of relational aggression is dependent on a certain level of maturation, that both verbal and social skills are necessary. Accordingly, these researchers propose that very young children may engage in a physical style of aggression; as their verbal abilities begin to develop, they may add direct verbal aggression to their behavioral repertoires; and finally,

the development of their social skills at a later age may make it possible to develop a third stage of aggressive strategies, relational aggression. If this is true, one might expect to find developmental changes in children's use of aggressive strategies, across the life-span. These researchers also suggest that the reason we see greater relational aggression in girls' interactions may be because girls mature faster, and so are able to make better use of relationally aggressive strategies. One of the questions that they raise with respect to this issue is: "whether boys later catch up, and begin to employ indirect means of aggression as much as girls do" (p. 126).

Summary

Although the results of recent studies are mixed, there is some evidence to support the hypothesis that both males and females may be aggressive: they just have different ways of expressing their aggressive behaviors. Further evidence for this hypothesis is presented by Cairns et al. (1989). These researchers report that themes of social alienation and ostracism described by adolescent girls in conflict situations are rarely mentioned by boys. Moreover, young children themselves, report gender differences in aggressive behavior among their own peer groups. For example, both boys and girls report that the norm for aggressive behavior among boys' peer groups is generally physical aggression. On the other hand, the norm for aggressive behavior among girls' peer groups is reported to be relational aggression by female respondents, but physical aggression by male respondents (Crick, Bigbee, et al., in press).

Gender differences in aggressive behavior can be described in two different ways: between gender and within gender differences. If one compares differences in aggressive behavior between males and females, it appears that males are more overtly aggressive than females (Bjorkqvist et al., 1992; Crick & Grotpeter, 1995; Crick, Bigbee, et al., in press; Crick, Casas, et al., in press; Lagerspetz et al. 1988, McNeilly-Choque et al., in press, Verlaan & Schwartzman, 1996). The results are not as clear for relational, or indirect aggression. Most studies, however, appear to suggest that girls are more relationally and indirectly aggressive than boys, based on peer-reports of grade school children (Bjorkqvist et al., 1992; Crick & Grotpeter, 1995; Feshbach, 1969; Feshbach & Sones, 1971; Lagerspetz et al., 1988) teacher-reports of preschoolers (Crick, Casas et al., in press; McNeilly-Choque et al., in press), and observations of preschoolers (McNeilly-Choque et al., in press). No significant between gender differences were discovered, however, in terms of preschoolers' peer-reports of relational aggression (Crick, Casas et al., in press; McNeilly-Choque et al., in press), and in one study examining indirect aggression among school-children (Verlaan & Schwartzman, 1996).

In terms of within gender analyses, it appears that boys might be more likely to engage in physically, as opposed to relationally (indirectly), aggressive behaviors. In contrast, girls might choose to employ relationally (indirectly) aggressive strategies more often than physically aggressive strategies (Crick, Bigbee et al., in press; Verlaan & Schwartzman, 1996). Thus, it appears that relational and indirect aggression are more

common among girls' peer groups, and physical and overt aggression more typical of boys'. However, it is imperative to be cognizant of the fact that both boys and girls engage in physical and relational (indirect) aggression. Although it appears that boys engage in more physically aggressive behaviors, they do engage in relationally aggressive actions as well. Similarly, although girls' typical aggressive response might be of a relational or indirect nature, girls also engage in physically aggressive behaviors.

Relation to Social-Psychological Adjustment

Recent research suggests that children who engage in frequent relationally aggressive behaviors may be at risk for social-psychological adjustment difficulties. For example, Crick and Grotpeter (1995) examined the social adjustment of relationally aggressive children by asking them to complete a series of instruments assessing peer status, peer relations, loneliness, social anxiety, and depression. These researchers report that controversial status children (i.e., those who receive both positive and negative sociometric ratings from their peers) were significantly more relationally aggressive than rejected children, who in turn, were more relationally aggressive than popular and neglected children (i.e., those who receive few positive or negative nominations). Furthermore, relationally aggressive children reported more loneliness, as well as poorer acceptance and greater isolation from peers. However, these effects were apparent for girls only. Specifically, the scores of relationally aggressive girls on these variables were significantly higher than those of nonrelationally aggressive boys and girls, whereas the

scores of relationally aggressive boys did not differ from those of their nonaggressive peers. In addition, relationally aggressive children reported significantly higher levels of depression than did nonrelationally aggressive children.

These results (i.e., significant effects for social-psychological adjustment of relationally aggressive girls only) have prompted Crick and Grotpeter to suggest that being relationally aggressive may carry a greater risk of social-psychological maladjustment for girls than for boys. However, only 2% of the 256 boys in this study were classified as relationally aggressive which, in effect, means that only five boys exhibited a relational style of aggression. This small sample size would make it extremely difficult to find any significant results. Therefore, more research, with larger sample sizes, is needed in this area in order to determine whether there is any relation between relationally aggressive behavior and social-psychological adjustment for boys.

Also, overt aggression was employed as a covariate in the assessment of the association between relational aggression and social-psychological adjustment, in order to remove the effect of overt aggression scores from the analysis. This may not have been a good idea, as relational and overt aggression scores were found to be significantly related ($r = .54$). In fact, when the relationship between overt aggression and the adjustment indices was assessed, the relation was often opposite to that obtained between relational aggression and social-psychological adjustment; specifically, overtly aggressive children often reported higher levels of adjustment. By removing the effect of overt aggression in

the scores, it actually made it easier to find significant effects between relational aggression and social-psychological adjustment. Thus, the meaning of these results is not entirely clear.

Additionally, caution must be exercised in making cause-effect statements.

Although it seems likely that relationally aggressive behaviors may lead to peer rejection and social-psychological maladjustment, one can not rule out the possibility that peer rejection and feelings of psychological distress may induce children to engage in relational aggression, perhaps as a means of retaliating against their peers. For this reason, Crick (1996) conducted a longitudinal study in order to determine whether relational aggression was predictive of future, as well as concurrent, social-psychological problems. Furthermore, both peer- and teacher-reports of aggression were employed in this study, in order to gain additional information about relationally aggressive behavior.

Crick (1996) conducted assessments of social behavior and adjustment among third- through sixth-grade children at three times during the academic year. Children were asked to complete a peer-nomination measure of social behavior and social adjustment in October, one month later in November, and also six months later in April. In addition, teachers completed a measure of children's social behavior during the weeks between the children's first and second assessments. These researchers report that both relational and overt aggression significantly predicted aspects of future social-psychological adjustment for boys and girls. However, relational aggression provided

unique information about social adjustment for girls only. For example, relationally aggressive girls become more rejected by peers over the course of the school year. Furthermore, a behavior pattern of high levels of aggressiveness combined with low levels of prosocial behavior appeared to be particularly problematic for children.

Additional research suggests that the use of relationally aggressive behaviors may be associated with adjustment problems, not only among school-aged children, but among preschoolers as well (Crick, Casas et al., in press, McNeilly-Choque et al., in press). Crick, Casas et al. (in press) asked both children and teachers to complete an age-appropriate measure of preschoolers' social behavior, based on previous instruments developed by Crick and Grotpeter (1995) and Crick (1996). Both relational and overt aggression were discovered to be related to social-psychological maladjustment for preschoolers. Specifically, peer-assessed relational and overt aggression were positively related to peer rejection for boys and girls. However, relational aggression (as assessed by both teachers and peers) was also significantly positively related to peer acceptance for boys. Furthermore, teacher assessment of children's depressed affect suggested that overt aggression was positively related to depressed affect for boys, and that relational aggression was positively related to depressed affect for girls.

Similar findings to those of Crick, Casas et al. (in press) were reported by McNeilly-Choque et al. (in press) with a larger sample of preschool children. These researchers report that both teacher- and peer-assessed relational aggression was related

to lower levels of peer acceptance for girls, but not for boys. Overt aggression, on the other hand, was associated with less acceptance for both boys and girls.

A study by Verlaan and Schwartzman (1996), however, presents a slightly different picture of social adjustment for children who choose to employ indirect or relationally aggressive behaviors. These researchers assessed the aggressive strategies (i.e., direct physical, direct verbal, and indirect) and psychosocial adjustment of 10- and 12-year-olds. Results indicate that physical aggression was associated with externalizing, internalizing, and interpersonal problems, whereas indirect aggression was related to social withdrawal. Furthermore, although both physical and indirect aggression were related to same-sex peer rejection, physically aggressive girls were less liked than physically aggressive boys. In contrast, indirectly aggressive boys were less liked and viewed as more socially withdrawn than indirectly aggressive girls.

There are a number of possible reasons for these discrepant findings. First of all, different measures were used to assess aggressive behavior in these studies. Crick, Casas, et al. (in press) and McNeilly-Choque et al. (in press) used similar measures which assessed relational aggression (Crick & Grotpeter, 1995) and overt aggression. Verlaan and Schwartzman (1996) used the measure developed by Lagerspetz et al. (1988) which has been criticized as confounding indirect with nonverbal aggression. Also, Verlaan and Schwartzman measured physical and verbal aggression separately instead of the more

global measure of overt (i.e., physical and verbal) aggression (Crick, 1996; Crick & Grotpeter, 1995; Crick, Casas, et al., in press; McNeilly-Choque et al., in press).

Furthermore, Verlaan and Schwartzman (1996) asked children to rate the aggressive behavior and likeability of their same-sex peers, whereas other researchers (Crick, 1996; Crick & Grotpeter, 1995; Crick, Casas, et al., in press; McNeilly-Choque et al., in press) requested that children nominate either boys or girls for these same items. Thus, the different assessment methods, particularly the possible confounding of gender effects (i.e., gender of the peer to be rated versus gender of the rater) might also impact upon the discrepant findings for girls and boys in terms of social adjustment.

An additional factor which likely has bearing upon these contrasting results, is the age groups which were examined in these studies. Crick, Casas, et al. (in press) and McNeilly-Choque (in press) examined a preschool sample, whereas Verlaan and Schwartzman (1996) studied the incidence of aggressive behavior among 10- to 12-year-olds. Verlaan and Schwartzman suggest that their findings are consistent with the hypothesis that gender role atypical behavior increases the risk for social psychological maladjustment. Thus, it is possible that this statement holds true for older children, to whom gender typical behaviors are more salient and well-established (Neto et al. 1991; Williams et al., 1975; Williams & Best, 1982). Conversely, since gender stereotypes may be less salient among young children, gender of the aggressor may play less of a role in young children's sociometric ratings of their peers.

To date, very little research has been conducted regarding the social-psychological adjustment of relationally aggressive children. The results of these studies, despite some discrepancies regarding the exact nature of these adjustment difficulties and the specific effects for males versus females, do appear to suggest, however, that children who engage in frequent relationally aggressive behaviors are at risk for social psychological adjustment difficulties, particularly, peer rejection (Crick, 1996; Crick, Casas et al., in press; Crick & Grotpeter, 1995; McNeilly-Choque et al., in press; Verlaan & Schwartzman, 1996).

The fact that relationally aggressive children are experiencing social adjustment difficulties underscores the need for intervention with these children. Most intervention programs in the past, however, have focused mainly on physical and verbal aggression. Thus, these intervention programs neglect a large proportion of aggressive behaviors in which children may engage, namely, relationally aggressive behaviors. Therefore, an immediate concern for researchers will be to develop an intervention program for children who engage in frequent relationally aggressive behaviors. At the present time, however, researchers do not know enough about the characteristics of these children and the behaviors in which they engage to be able to develop such a program. For instance, very little is known about any social cognitive factors which may be related to the use of relationally aggressive strategies.

Recently, researchers have pointed to the utility of a social-cognitive approach to the study of children's behaviors and social adjustment (Crick & Dodge, 1994; Dodge, 1986). These researchers suggest that children's cognitions may form the basis of the behaviors they exhibit. Subsequently, children's behaviors affect their social adjustment in relation to their peers. Thus, the study of children's social-cognitions is important to the study of children's behavior, in that certain information processing biases in children's cognitions which might contribute to maladjustment may be discovered (Crick & Dodge, 1994). Therefore, the next section of this paper will focus on those social-cognitive processes which may be related to the use of physically and relationally aggressive strategies.

Social-Information Processing Mechanisms Related to Social Behavior

A Model of Social Information Processing: Crick and Dodge (1994)

Crick and Dodge (1994) present a social information-processing model of children's social adjustment, which is actually a revision of an earlier model of social cognition described by Dodge (1986). According to this model, a child comes to a particular situation with a biologically determined set of response capabilities as well as a memory store of past experiences. This child then receives information from the environment in the form of social cues. Crick and Dodge propose that the child then processes this information through a series of 6 steps which eventually lead to a behavioral response.

The 6 steps described in this model include: 1) Encoding of Cues in which incoming information must be sensed, perceived, and encoded; 2) Interpretation of Cues in which cues must be integrated with memories of past experiences and then interpreted; 3) Clarification of Goals which involves the selection of a new goal or the continuation of a preexisting one; 4) Response Access or Construction which involves the accessing of possible responses from one's memory or the construction of new behaviors in response to immediate social cues; 5) Response Decision in which the child learns to evaluate the potential consequences of each generated response, and then select an optimal response based on both the environmental context and his or her own behavioral capabilities; and finally 6) Behavioral Enactment in which the chosen behavioral response is enacted.

A number of assumptions are involved in this model. First of all, the processing of information through this series of steps is generally assumed to occur at an unconscious level and at a very rapid rate. Secondly, these series of steps are presumed to be sequential and to proceed in the stated order. Although these steps are assumed to be separable (i.e., they can be measured independently), it is also likely that early processing steps will affect later steps, so that an assessment of one step of processing is confounded by the effects of preceding steps. Furthermore, it is assumed that "If the child processes the information skillfully, efficiently, and accurately, the probability is great that he or she will behaviorally respond in a manner that is judged by others to be competent. Failure to respond skillfully at a step or responding in a biased manner increases the

probability that the child will behave in a deviant, possibly aggressive, way" (Dodge, 1986, p. 83).

Research Related to Information Processing Patterns

Physically Aggressive Children

Over the years, a great deal of research has been conducted regarding the relationship between children's social adjustment and various social-information processing mechanisms. Crick and Dodge (1994) have conducted an extensive review of the literature in this area. In general, they report that children with social adjustment difficulties (e.g., frequent engagement in aggressive behaviors) often process information differently from those children who are described as more socially competent (e.g., frequent engagement in prosocial acts). For example, at the level of cue interpretation, aggressive children may attribute hostile intent to their peers when presented with hypothetical provocation situations more often than their nonaggressive peers. These children may also experience information processing deficits at the response construction and decision levels; aggressive children access fewer number of responses, as well as responses that are more aggressive and less prosocial than those accessed by their more prosocial peers. Aggressive children also report feeling more confidence in their abilities to perform physically and verbally aggressive behaviors.

Unfortunately, an examination of these and other information processing biases which have been reported for aggressive children is beyond the scope of this paper (see

Crick & Dodge, 1994 for a review). Thus, the remainder of this section will focus upon the two issues of main concern in this study: 1) the information processing patterns of relationally aggressive children and 2) research related to the social goals of aggressive children.

Relationally Aggressive Children

Again, just as most intervention programs have focused on physically and verbally aggressive behaviors, so has the research related to the information processing patterns of aggressive children. Most of this research regarding social cognitive processes has defined aggression in generalized terms, usually encompassing both physical and verbal forms. In fact, among the psychological aggression literature, there appears to be only one study examining the information processing patterns of relationally aggressive children.

Crick (1995) attempted to examine the intent attributions of relationally aggressive children, a social cognitive process which is described at the second level of Crick and Dodge's (1994) model - Interpretation of Cues. A peer-nomination measure (Crick & Grotpeter, 1995) was used to assess the relationally aggressive behaviors of third- through sixth-grade children. These children were then presented with both relational and instrumental provocation situations, in which the intent of the peer was ambiguous (e.g., the subject overhears two peers talking about an upcoming birthday party to which he/she has not been invited). Following the presentation each of these

situations, children were asked to determine whether the provocateur's behavior was intended to be mean or not. Results indicate that relationally aggressive children held significantly more hostile attributions for relational provocation situations than did their nonaggressive peers. In terms of instrumental provocation situations, it was determined that the group of relationally plus overtly aggressive children reported more hostile attributions for these situations than did nonaggressive children.

This study suggests that relationally aggressive children may be biased in their information processing patterns at the second level of Crick and Dodge's (1994) model - Interpretation of Cues. To date, however, this appears to be the only study examining the information processing mechanisms of relationally aggressive children. There does not appear to be, within the relational aggression literature, any research regarding the association between relational aggression and other social cognitive processes (i.e., encoding of cues, clarification of goals, response construction, or response decision processes). In order to develop successful interventions for relationally aggressive children, researchers need to discover more about their social cognitive processes. Thus, the purpose of this study will be to examine one of these social-information processing mechanisms - that of children's social goals.

Focus on Goals

The third step of Crick and Dodge's (1994) model is labeled "Clarification of Goals". Crick and Dodge describe goals as "focused arousal states that function as orientations toward producing (or wanting to produce) particular outcomes" (p. 87). These researchers suggest that, once social cues have been encoded and interpreted, children then select a goal, or desired outcome (e.g., obtaining a desired object, or maintaining a relationship). While it is assumed that children bring goal orientations to any situation, it is also possible that they may revise those goals or construct new ones in response to immediate social cues.

The Relation Between Goals and Social Adjustment

Social competence in children has been linked to the selection and attainment of appropriate social goals (e.g., Dodge, Asher, and Parkhurst, 1989; Taylor and Asher, 1984). "Social competence involves the formulation and adoption of personal goals that are appropriate and adaptive to particular social situations and the implementation of effective behavioral strategies for achieving these goals" (Taylor & Asher, 1984; p. 57).

Asher and Renshaw (1981) suggest that low sociometric status among children may be largely a function of a lack of social skills. However, they also argue that a conceptualization of social skillfulness should involve, not only behavioral, but cognitive components as well. The following four components are considered, by Asher and Renshaw, to be dimensions of social skillfulness: 1) children's knowledge of general

interaction principles or concepts (e.g., participating, cooperating, communicating); 2) knowledge of the specific behaviors or behavioral sequences which can be used to actualize these concepts; 3) the goals children set for themselves in particular situations; and 4) the ability to recognize the kind of impact one is having on others. Thus, a child's unpopularity may be a function of "not only a lack of knowledge of principles or specific behavioral strategies, but also a tendency to define interpersonal goals in ways that promote dysfunctional social behavior" (Asher & Renshaw, p. 288).

In support of this hypothesis, Ford (1982) discovered that 9th- and 12th-grade students judged to be socially competent (based on teacher-, peer-, or self-ratings) in various hypothetical situations generally assigned higher priority to interpersonal goals (e.g., helping others, getting socially involved, getting along with parents and friends) than to non-social task-oriented goals (e.g., getting good grades in school, earning a lot of money). Due to the fact that goal construal processes appear to be extremely important in sustaining effective social interaction, Asher & Renshaw (1981) suggest that these processes should therefore be targeted directly in training programs for unpopular children.

Social adjustment, in relation to children's goals, has generally been defined in one of two ways: peer-acceptance/rejection or aggressive/prosocial behavior. Differences have been discovered for children's goal selection along both of these dimensions, although the pattern of results generally suggests a stronger relationship between

children's goals and behavior than between goals and peer-acceptance. Thus, the next section of this paper will be concerned with the relation between goals and these two dimensions of children's social adjustment.

Peer Acceptance/Rejection

Research regarding the relation between children's goals and peer acceptance suggests that peer acceptance may be related to goals which are relationship enhancing. For example, Renshaw and Asher (1983) interviewed third- through sixth-grade children in an attempt to determine the relation between children's goals and peer status in hypothetical social situations. During individual interviews, children were presented with four hypothetical social situations (i.e., initial contact with peers, group entry, friendship, and conflict). Children's goals for these situations were elicited in two different ways: a goal-production task in which children were required to produce their own goals for each situation, and a goal-recognition task which required children to rank-order four different social goals. Individual differences in children's social goals were then examined using the dimensions of friendliness and assertiveness to categorize children's ideas.

No significant sociometric status differences were discovered, in terms of goal selection (i.e., when children were asked to recognize or rank-order alternative goals). Significant differences were discovered, however, in terms of goal production. Specifically, it was discovered that high-status children suggested significantly more

positive-outgoing goals than did low-status children. In contrast, avoidance and hostile goals were suggested with similar frequencies by these two status groups.

Further evidence for the relation between peer rejection and goals selection is presented by Rabiner and Gordon (1992). These researchers report that aggressive rejected boys and "residual" rejected boys (i.e., rejected boys who were neither aggressive nor submissive) provided more self-focused responses than nonrejected boys. Self-focused responses were defined here as those where only individual goals and needs of the self were addressed, and where there was no indication of the importance of relational goals. Moreover, there was evidence to suggest that aggressive and residual rejected boys, in relation to their nonrejected peers, generated solutions that were less likely to integrate individual and relational goals.

The findings of Crick and Ladd (1990) also lend support to this hypothesis. Crick and Ladd examined children's outcome expectations for a number of strategies (i.e., physical aggression, commands, appeal to social norms, avoidance, compliance, and compromise) presented in response to hypothetical conflict situations. For each strategy situation, children were asked to imagine that they had used that particular strategy and to describe what they thought the outcome would be. Results indicate that rejected children tended to focus on instrumental outcomes (i.e., whether the strategy would lead to the attainment of some instrumental goal) more often, and relational outcomes (i.e., how the

strategy might impact the relationship between the self and the peer) less often, than their nonrejected peers.

The results of these studies suggest that peer rejection may be related to the formulation of instrumental goals, whereas peer acceptance appears to be related to the adoption of more relational goals. The complete pattern of the relationship between children's goals and peer-acceptance, however, is not entirely clear. For example, Renshaw and Asher (1983) hypothesized that low-status children would be more likely to select avoidant and hostile goals, and less likely to select positive-outgoing and positive-accommodating goals than their high-status peers. However, this hypothesis was only partially supported; significant sociometric status differences were discovered for the production of positive-outgoing goals only. Thus, it appears that a significant relationship exists between children's level of acceptance and relationship- versus task-oriented goals. However, more research is needed to examine a wider range of goals (e.g., hostile, revenge, control, and avoidance) before any firm conclusions can be drawn regarding the relation between these goals and children's acceptance or rejection.

Aggressive/Prosocial Behavior

Erdley and Asher (1996) suggest that a lack of robust findings related to differences in children's goal orientations may be due to a focus on the relation of goals to peer acceptance rather than behavior. A study by Erdley, Qualey, and Pietrucha (1996) lends support to this hypothesis. These researchers attempted to determine the relation

between children's social-cognitive processes (i.e., intent attributions, goals, and self-efficacy perceptions), their behavior (i.e., aggressive, withdrawn, and prosocial), and their peer acceptance. Results indicate that children's thoughts or social-cognitive processes were more closely associated with their behavior than their level of acceptance. These findings have prompted several researchers (Erdley & Asher, 1996; Erdley et al., 1996) to suggest a pathway in which social-cognitive processes contribute to certain behavior patterns, which then play a role in determining children's level of peer acceptance.

Research regarding children's goals and behaviors generally suggests a strong relationship between these two variables. For example, Chung and Asher (1996) presented fourth- through sixth-grade children with 12 conflict situations each describing a situation involving overt incompatibility between two children's needs or interests (e.g., a classmate refuses to return a puzzle piece that the subject needs to finish a puzzle). Children were presented with a list of five different strategies for each situation (i.e., prosocial, hostile/coercive, assertive, passive, and adult-seeking) and asked to select one. Based on the strategy selected, children were then asked to choose one of four goals (i.e., relationship, control, self-interest, or avoidance) for each situation. In order to make it possible to conduct multivariate analyses of variance, the strategy and goal measure with the lowest alpha coefficient were then dropped from all subsequent analyses (i.e., assertive strategies and self-interest goals). Peer group acceptance and peer-reported behavioral style (i.e., prosocial, aggressive, and withdrawn behaviors) were also assessed.

Results indicate that the selection of relationship goals was related to the selection of more prosocial and passive strategies, and fewer hostile/coercive strategies. Children who endorsed more avoidance goals tended to select more prosocial, passive, and adult-seeking strategies, but fewer hostile/coercive strategies. Finally, those children who selected more control goals tended to also select more hostile/coercive strategies, but fewer prosocial, passive, and adult-seeking strategies. Children's strategies were also discovered to be related to their level of peer acceptance (i.e., hostile/coercive strategies were negatively related to peer acceptance for girls, and adult-seeking strategies were negatively related to peer acceptance for boys). Unfortunately, however, the relationship between children's goals and peer acceptance was not examined. Thus, no further information can be gained from this study regarding the relationship between these two variables.

A similar study was conducted by Chung and Asher (1995). However, children were provided with a wider range of goals and strategies, and asked to rate, rather than rank order them. Also, the goal and strategy measures were administered in separate sessions, in order to ensure that children's selected goals were not simply a post-hoc justification for their strategy selections. Again, the strategies selected by children in hypothetical conflict situations were significantly related to their everyday behavioral styles, as assessed by their peers. Also, goals and strategies, although assessed in separate sessions were significantly related. For example, physically and verbally aggressive

strategies were positively correlated with goals of revenge, pursuing self-interest, and maintaining personal control. Goals which involved maintaining good relationships, seeking equity, pursuing fairness, avoiding trouble with adults, and avoiding injury were negatively correlated with physically and verbally aggressive strategies, but positively correlated with the selection of more prosocial strategies. Prosocial strategies were also negatively correlated with the selection of revenge goals.

Children's goals have also been determined to be related to their behavioral styles as assessed by their peers (Erdley & Asher, 1996; Lochman, Wayland, & White, 1993) and their teachers (Lochman et al.). For example, Lochman et al. presented children with a hypothetical vignette about a peer conflict situation (i.e., a new kid at your school you don't know very well is coming down the hall from the other direction, and suddenly bumps into your shoulder hard, knocking your books to the floor). The relation between adolescent boys' goals of dominance, revenge, avoidance, and affiliation, and peer- and teacher-rated externalizing, internalizing, and prosocial behaviors was then examined. Results indicate that children who were rated by their teachers as high on depression and aggression, and low on sociability, gave high ratings to revenge and dominance goals, and low ratings to affiliation goals. These goals were also rated similarly by children who were identified by their peers as being inattentive and aggressive, who were disliked by their peers, and who were not considered good leaders.

Teacher-ratings of behavior, in this study, were also used to identify groups of aggressive versus nonaggressive boys. Aggressive boys appeared to rate dominance and revenge higher, and affiliation lower than did nonaggressive boys. Within group analyses of social goals were also conducted, indicating that all four types of goals were rated similarly by aggressive boys. Conversely, the social goals of nonaggressive boys were clearly ordered: affiliation, avoidance, dominance, and revenge (in order of importance from highest to lowest).

In contrast to the previous researchers, who examined children's goals in hypothetical conflict situations (Chung & Asher, 1995; 1996; Lochman et al., 1993). Erdley and Asher (1996) attempted to determine the nature of children's goals in ambiguous provocation situations. Specifically, these researchers investigated the social goals of aggressive, withdrawn, and prosocial children who differed in their attributional styles (i.e., hostile versus benign intent). Fourth- and fifth-grade children were presented with a series of ambiguous provocation situations in which a peer does something that brings harm to the child, but the peers intentions are unclear. Intent attributions were assessed by asking children whether they thought the peer had caused the harm "on purpose" or "by accident". Children's behavioral styles were then determined by asking children which of a number of responses (i.e., physically aggressive, verbally aggressive, passive, avoidant, problem-solving, request for clarification) they would be most likely to perform. These two questions were then used to classify children into one of six groups:

hostility-attributing aggressive, hostility-attributing withdrawn, hostility-attributing prosocial, benignly-attributing aggressive, benignly-attributing withdrawn, or benignly-attributing prosocial.

Children's goals were then assessed by selecting three of the previous ambiguous provocation situations, reminding them of their responses regarding the protagonist's intent and their most-likely behavioral reaction, and then asking what they would be trying to do in that situation. For example, a child who was classified as hostility-attributing aggressive was read three of the hypothetical situations to which he or she had previously responded "on purpose" and also reported an aggressive response. Children were then asked to rate eight goals (i.e., getting back at the protagonist, working out the problem peacefully, avoiding the protagonist, hurting the person's feelings, protecting the self, taking care of the problem, maintaining the relationship, or maintaining an assertive reputation) on a five-point scale.

Both hostility-attributing and benignly-attributing children were fairly similar in their goal selections. For example, goal ratings of prosocial and withdrawn children, whether hostility- or benignly-attributing, were fairly prosocial. Both types of aggressive children, on the other hand, were more likely to select antisocial goals and less likely to pursue prosocial goals. For example, all children classified as aggressive gave lower ratings to goals of working things out peacefully, getting along with the other child, and taking care of the problem, and higher ratings to goals of getting back at the protagonist

and making the other feel bad. In addition, however, hostility-attributing aggressive children rated the goals of protecting the self and looking strong higher than did children of other behavioral styles.

Past research suggests that children's intent attributions are strongly related to their behavioral styles (i.e., aggression has been linked to the attribution of hostile intent in ambiguous provocation situations; see Crick and Dodge, 1994 for a review). The results of this study, however, suggest that children's social goals are also strongly related to the types of behaviors in which children choose to engage. Specifically, children who respond aggressively in provocation situations, regardless of their intent attributions (e.g., on purpose or by accident), were more likely to pursue hostile goals than either prosocial or withdrawn responders.

There is also some suggestion that children's social goals may differ based on the type of aggression which they exhibit. Crick and Dodge (1996) examined the relation between children's goals and reactive aggression (i.e., an angry, defensive response to frustration or provocation) and proactive aggression (i.e., a deliberate behavior that is controlled by external reinforcements). The aggressive behavior of third- through sixth-graders was determined through the use of a teacher-rating instrument developed by Dodge and Coie (1987). This measure consists of three reactive-aggressive items (e.g., When this child has been teased or threatened, he or she gets angry easily and strikes back) and three proactive-aggressive items (e.g., This child uses physical force in order to

dominate other kids). These scores were then used to classify children into groups of nonaggressive, reactive-aggressive, proactive-aggressive, and reactive- plus proactive-aggressive children. Children's social goals were then assessed in two peer conflict and two peer group entry situations, in which both physical and verbal strategy responses to the situation were presented. For each of these situations, children were then presented with both a positive instrumental and a positive relational outcome, and asked which they would prefer to have occur.

Results indicate that proactive-aggressive children chose instrumental rather than relational goals more often than their non-proactive aggressive peers. No such differences, however, were discovered for reactive-aggressive children and their non-reactive aggressive peers, suggesting that the attainment of instrumental goals may be more important to proactive-aggressive children. However, further research is needed in order to determine whether these two types of aggressive children differ in terms of the pursuit of other kinds of goals (e.g., hostility, control, revenge).

The studies discussed so far, have all examined goals selection among grade school children in normative populations. There is also some evidence to suggest, however, that aggression status differences may exist in the goals of older, more clinically aggressive populations. Slaby and Guerra (1988) attempted to examine the hostile versus nonhostile goals of antisocial-aggressive adolescents (from a prison population), as well as high- and low-aggressive adolescents (from a high-school

population). Participants were presented with two hypothetical ambiguous situations in which an unknown peer was interfering with a personal-instrumental goal. Children's goals were then determined by asking them to choose between a hostile or nonhostile response to the situation. Results indicate that both anti-social and high-aggressive subjects were more likely than low-aggressive subjects to choose hostile goals. No significant differences were discovered, however, in terms of the goals selected by anti-social and high-aggressive subjects.

Slaby and Guerra (1988) suggest that, the cognitive mediational abilities of antisocial-, high- and low- aggressive children may lie upon a continua, with antisocial-aggressive adolescents at one end and low-aggressive adolescents at the other. In fact, these researchers report that these three different groups of aggressive individuals differ from each other in terms of a number of social-problem solving skills and beliefs supporting aggressive behavior. The reason for the lack of significant difference in goal selection between antisocial- and high- aggressive adolescents, however, is unclear. These results may be due to an actual lack of significant differences between the two groups. Alternatively, the lack of significant findings could be due to a lack of sensitivity in the measure used to assess children's goals. Children were asked only to choose between a hostile or nonhostile response. More information might have been gained, however, by presenting children with a wider range of goals and asking them to rate, rather than select them.

Summary

In conclusion, the results of this study suggest that children's goals are related to both their behaviors (Chung & Asher, 1995; 1996; Crick & Dodge, 1996; Erdley & Asher, 1996; Lochman et al., 1993; Slaby & Guerra, 1988) and their degree of acceptance or rejection among their peers (Crick & Ladd, 1990; Rabiner & Gordon, 1992; Renshaw & Asher, 1983). In general, however, these findings appear to be stronger for the relationship between children's goals and behavior than children's goals and peer acceptance. With regards to the relationship between children's goals and peer acceptance, results indicate that acceptance may be related to the formulation of relational goals, whereas rejection appears to be more strongly related to the pursuit of instrumental goals. In terms of children's behaviors, the use of prosocial strategies appears to be related to the selection of relational goals. In contrast, however, children who engage in more aggressive strategies during interactions with their peers appear to adopt goals centered around themes of hostility, revenge, control, and instrumentality.

Erdley and Asher (1996) and Erdley et al. (1996) suggest that children's social-cognitions contribute to certain behaviors, which subsequently affect children's level of acceptance among their peers. According to this hypothesis then, children who are interested in pursuing relational goals might select prosocial strategies in order to best attain this goal. Thus, these children might be more popular among their peers due to the positive nature of the behaviors they exhibit when in contact with their friends. On the

other hand, children who are more interested in obtaining a desired object or outcome than in maintaining relationships with their peers might select aggressive strategies in order to accomplish these goals. Due to the aversive nature of the strategy chosen in this case, children who engage in aggressive behaviors might be more rejected by their peers than their more prosocial classmates.

The relationship between children's goals and their behaviors or level of peer acceptance has also been examined in variety of situations (e.g., conflict, peer group entry, friendship, ambiguous provocation). Some researchers have examined children's goals in the context of a number of situations at once, and drawn global conclusions based on results pooled across all situations studied (e.g., Ford, 1982; Nakamura & Fink, 1980; Renshaw & Asher, 1983). This approach has been subsequently criticized by a number of researchers (Erdley & Asher, 1996; Gresham, 1983). Thus, situational factors related to goal selection will be the topic of discussion in the next section.

Situational Specificity

In the context of examining children's goals, it is necessary to consider the situation in which those goals are endorsed. Crick and Dodge (1994) suggest that goal categories are situationally specific to some degree. For example, whereas establishing a friendship might be a goal sought by children while on a playground with a peer, the same goal would not likely be of interest to a child who is being physically attacked. In fact, there is some evidence to suggest that the specific nature of the goals sought by

individuals may vary according to the situation at hand (Graham, Argyle, & Furnham, 1980).

Renshaw and Asher (1983) have been criticized for their conclusions based on a global assessment of children's goals (Erdley & Asher, 1996; Gresham, 1983). Renshaw and Asher examined children's goals across a number of social situations (i.e., initial contact with peers, group entry, friendship, and conflict). Erdley and Asher suggest, however, that some situations may "pull" for certain goals, and that the practice of pooling across these situations may obscure any existing differences in the goals selected by children. For example, one might expect children's goals in the first three situations to be more friendly than in a conflict situation where it is possible that children might be more interested in instrumental goals (e.g., obtaining a desired object) than in maintaining friendly interactions with their peers. Furthermore, although Renshaw and Asher discovered that high-status children suggested significantly more positive-outgoing goals than did low-status children, few other significant results were discovered. Thus, the lack of significant findings might possibly be attributed to the assessment of children's goals across various situations, rather than an actual lack of differences in goal orientation.

These criticisms have lead many researchers to examine children's goals in specific social situations. The situation which has been most commonly assessed to date, is that of children's conflict with their peers. Conflict situations have been depicted as a rich context for studying children's goals, and the manner in which children's goals are

then related to their behaviors (Asher, Chung, & Hopmeyer, 1995; Chung & Asher, 1995). For instance, there are many different goals that children might pursue when engaged in conflict with their peers (e.g., getting what they want, maintaining good relationships, avoiding pain or injury, and getting revenge; Asher et al.). Therefore, due to the multiple goals which may be sought by children in these situations, and the fact that this situation has been commonly used to study children's goals in the past (Chung & Asher, 1995; 1996; Crick & Dodge, 1996; Lochman et al., 1993; Rabiner & Gordon, 1992), children's goals in this study will be examined in the context of conflict situations with their peers.

Gender Differences in Children's Goals

Although a number of studies have been conducted regarding the relationship between children's goals and peer-acceptance or behavioral style, few studies have attempted to examine gender differences in children's goal selection. There are a number of possible reasons for this. First, a number of studies have examined the relation between children's goals and overt aggression. Since boys are generally more overtly aggressive than girls, the samples selected for these studies often consist primarily of boys. Second, the sample size of the study or the process of grouping participants with respect to a number of variables (e.g., hostility-attributing versus benignly-attributing aggressive, withdrawn, and problem-solving children; Erdley & Asher, 1996) often result in small cell sizes, thereby making it difficult to detect any gender differences which might exist.

Among those studies which have attempted to examine gender differences in children's goals, significant findings have generally been discovered. For example, Slaby and Guerra (1988) examined the goals of antisocial-, high-, and low-aggressive adolescents. These researchers discovered that males were more likely than females to select hostile goals in response to hypothetical, ambiguous provocation situations. In addition, Ford (1982) reports that 9th- and 12th-grade females had a more social goal hierarchy than males.

Gender differences have also been discovered in children's outcome values (i.e., the degree to which individuals attach importance to, or care about, a particular outcome). Boldizar, Perry, and Perry (1989) presented children with a number of situations involving both physically and verbally aggressive acts directed toward a provocative peer, and then asked them how concerned they would be about a specified consequence that might result from their aggression. Findings indicate that third- through sixth-grade boys were more concerned with control of the victim, yet less concerned about suffering by the victim, retaliation from the victim, peer rejection, and negative self-evaluation than were girls.

An examination of children's goals in conflict situations with their peers also reveals a link between gender and goal selection (Chung & Asher, 1995; 1996). For example, Chung and Asher (1996) examined fourth- through sixth-grade children's strategies (i.e., prosocial, hostile/coercive, passive, and adult-seeking) and goals (i.e.,

relationship, control, and avoidance goals) in a number of hypothetical situations. These researchers report that boys endorsed more control goals and fewer avoidance goals than girls. Additionally, within gender analyses indicated that boys selected control goals more often than relationship or avoidance goals. No significant differences were discovered, however, in terms of the extent to which girls endorsed relationship, avoidance, and control goals. Similar results were reported by Chung and Asher (1995) who examined a wider range of strategies and goals among fourth- and fifth-grade children. These researchers report that girls rated the three types of prosocial goals (i.e., relationship, equity, and fairness) more positively than did boys, whereas boys rated the revenge goal more positively than did girls.

However, it is possible that gender differences in children's goals were confounded with the type of strategies selected. For example, Chung and Asher (1995) report that the selection of prosocial goals (i.e., relationship, equity, and fairness) was positively related to the selection of prosocial strategies (i.e., compromise and polite request). Also, it appears that girls rated these same prosocial goals, as well as the prosocial strategy of compromise more positively than did boys. Furthermore, selection of the revenge goal was positively related to the selection of aggressive strategies. However, both the revenge goal and aggressive strategies were rated more positively by boys than by girls. Based on these results, therefore, it is difficult to determine whether

variations in goal selection are due to gender differences or differences in the types of strategies children select.

Purpose of the Present Study

Three variables were examined in this study: 1) peer-nominations of children's everyday behavioral styles, which were used to identify groups of physically aggressive, relationally aggressive, physically plus relationally aggressive, prosocial, and average children; 2) children's self-ratings of their strategies (i.e., physically aggressive, relationally aggressive, and prosocial) in specific conflict situations with their peers; and 3) children's self-ratings of their goals (i.e., self-interest, personal control, revenge, avoiding trouble, pursuing equity, maintaining good relationships with focus peer, maintaining relationships/status within the peer group) in those same conflict situations.

Previous research suggests that children's goals are related to both their strategies in specific conflict situations (e.g., Chung & Asher, 1995; 1996; Erdley & Asher, 1996), as well as their behavioral styles (Crick & Dodge, 1996; Lochman et al., 1993; Rabiner & Gordon, 1992). However, no research has yet been conducted regarding the goals of relationally aggressive children. Thus, one purpose of this study was to examine the relationship between children's goals and strategies in conflict situations. In particular, it was of interest to determine whether relationally aggressive strategies are positively related to the same goals as physically aggressive and/or prosocial strategies. A second purpose of this study was to investigate the relationship between children's goals and

their behavioral styles. In this case, the goals of children who were identified as being relationally aggressive were compared with those of children who were identified as being physically aggressive or prosocial.

Research also suggests that children's everyday behavioral styles are closely related to their strategies in specific conflict situations (Chung & Asher, 1995; 1996; Erdley & Asher, 1996). Thus, a third purpose of this study was to examine the relationship between children's self-rated strategies in specific conflict situations and their everyday behavioral styles, as assessed by their peers. Finally, gender differences in children's goals, strategies, and behaviors were also investigated due to the fact that gender differences have been discovered in past studies, in terms of aggressive behavior (Bjorkqvist, 1992; Crick, Casas et al., in press; Crick & Grotpeter, 1995; Feshbach, 1969; Feshbach & Sones, 1971; Lagerspetz et al., 1988; McNeilly-Choque et al., in press; Verlaan & Schwartzman, 1996), strategies (Chung & Asher, 1995; 1996), and goals (Chung & Asher, 1995; 1996; Ford, 1982; Slaby & Guerra, 1988).

Hypotheses

It was expected that children's goals in conflict situations would be related to: 1) their self-rated strategies in those same situations and 2) their everyday behavioral styles as assessed by their peers. Children's strategies were also expected to be related to their everyday behavioral styles. Furthermore, gender differences in children's goals, strategies, and behaviors were anticipated. These hypotheses will now be discussed in

terms of specific predictions related to the design of the study and analyses to be conducted.

Children's Goals and Self-Rated Strategies

Children were asked to rate the likelihood that they would engage in physically aggressive (i.e., mild and extreme), relationally aggressive (i.e., mild and extreme), or prosocial strategies (i.e., compromise and polite request) in conflict situations with their peers. In addition, they were asked to rate the extent to which they are interested in pursuing seven different goals (i.e., self-interest, personal control, revenge, avoiding trouble, pursuing equity, maintaining good relationships with focus peer, maintaining relationships/status within the peer group) in those same situations. Correlation coefficients were then calculated in order to determine the relation between these goals and strategies.

Based on previous findings (e.g., Chung & Asher, 1995; 1996; Erdley & Asher, 1996), a fairly specific pattern of relations between children's goals and strategies, particularly physically aggressive and prosocial strategies, was expected. Specifically, it was hypothesized that physically aggressive strategies would be positively correlated with self-interest, control, and revenge goals, and negatively correlated with goals which involve avoiding trouble, pursuing equity, and maintaining good relationships. Prosocial strategies, in contrast, were expected to be positively correlated with these same goals (i.e., avoiding trouble with adults, pursuing equity, maintaining good relationships), and

negatively correlated with the revenge goal. No specific predictions were made regarding the correlation between prosocial strategies and the control goal since previous research regarding this relation is conflicting. Specifically, Chung and Asher (1996) report that children who endorsed more control goals selected fewer prosocial strategies. However, Chung and Asher (1995) did not discover any relation between these two variables. Additionally, no significant correlations were expected between prosocial strategies and the self-interest goal since no relation between these two variables was discovered by Chung and Asher (1995).

Although the relationship between relationally aggressive behaviors and children's goals has not yet been examined, some specific predictions regarding the relationship between these two variables are presented here. First, it was expected that relationally and physically aggressive strategies would be correlated with many of the same goals. Specifically, relationally aggressive strategies were expected to be positively correlated with self-interest, control, and revenge goals, and negatively correlated with goals which involve pursuing equity, and maintaining a good relationship with the focus peer. Thus, children who are more likely to endorse relationally and physically aggressive strategies might be more interested in obtaining desired objects or outcomes, and less concerned with being nice to and maintaining a good relationship with the peer in question. However, it is possible that children who are more likely to engage in relationally aggressive, as opposed to physically aggressive strategies, might also be more

interested in maintaining relationships or status among other members of their peer group.

Crick and Grotpeter (1995) suggest that the type of aggressive behavior exhibited by boys and girls will be consistent with their social concerns. Thus boys engage in physical or verbal aggression in an attempt to thwart boys' goals of instrumentality and physical dominance, whereas girls engage in relational aggression in an attempt to damage girls' relational goals. If girls are more interested in relational issues, such as establishing close, intimate relationships with others (see Block, 1983, for a review), then it may be that relationally aggressive children are interested in these goals as well. In fact, this may be one of the functions of relationally aggressive actions, to get everyone to like you and be on your side against the another child in your peer group. In fact, by creating a sort of ingroup-outgroup situation, those children who belong to the ingroup may be brought closer together, since they feel that they belong and that the other kids like them. Thus, although relationally aggressive children may not care about maintaining a good relationship with one peer (perhaps a peer who they dislike, or of whom they are jealous), these children may still be concerned with maintaining relationships or status among other children in the peer group. Perhaps the loss of one friendship appears justified, in the face of other gains which are to be made (i.e., feeling important and well-liked by the remainder of one's peers). Thus, it was hypothesized that relationally aggressive

strategies would be positively correlated with the goal of maintaining relationships/status among the peer group.

Also in contrast to physically aggressive strategies, relationally aggressive strategies were expected to be positively correlated with the goal of avoiding trouble with adults. Delveaux et al. (1996) asked children about their perceptions of physically and relationally aggressive behaviors. Children, in this study, perceived physically aggressive actions as being more likely to result in sanctional outcomes (e.g., getting in trouble with the teacher) than relationally aggressive behaviors. Research also suggests that there is a greater expectation for females to display "ladylike" behavior (Block, 1983) and that boys expect less parental disapproval for physically and verbally aggressive behavior, at least when provoked by a male peer, than do girls (Perry, Perry, & Weiss, 1989). Thus, one of the reasons that girls engage in relationally aggressive actions, may be that these types of behaviors allow girls to get what they want, while still maintaining the image, at least in front of adults, of being a well-behaved young girl (see Table 1 for a summary of these hypotheses).

Children's Goals and Peer-Nominated Behavioral Styles

Children were presented with a Behavioral Nomination Measure (adapted from Crick & Grotpeter, 1995) which required them to nominate their peers for a number of physically aggressive, relationally aggressive, and prosocial items. This measure was designed to assess children's everyday behavioral styles, rather than their strategies in

Table 1

Summary of Hypotheses Regarding the Relation Between Children's Goals and Strategies

Goals	Strategies		
	Relational	Physical	
	Aggression	Aggression	Prosocial
Self-Interest	+	+	
Personal Control	+	+	
Revenge	+	+	-
Avoiding Trouble with Adults	+	-	+
Pursuing Equity	-	-	+
Relationships - Focus Peer	-	-	+
Relationships/Status - Peer Group	+	-	+

specific conflict situations with their peers. Nominations children receive from their peers for each of these items were used to classify children into groups (i.e., prosocial, physically aggressive, relationally aggressive, physically plus relationally aggressive, and average). A multivariate analysis of variance (MANOVA) was then performed in order to determine whether these five groups of children differed in terms of the degree to which they endorsed each goal.

Similar to Chung and Asher (1995; 1996), who reported a strong relationship between children's goals and the strategies they selected in conflict situations, research also suggests that children's peer-rated everyday behavioral styles are related to the goals they select (Crick & Dodge, 1996; Erdley & Asher, 1996; Lochman et al., 1993; Rabiner & Gordon, 1992). Thus, a relationship similar to that expected between children's goals and strategies, was expected between children's goals and their everyday behavioral styles as assessed by their peers (i.e., physical aggression, relational aggression, and prosocial behavior). For example, prosocial children were expected to give higher ratings to relationship goals, whereas aggressive children were expected to give higher ratings to revenge, self-interest, and control goals. No specific predictions were made with regards to the goals pursued by children classified as average or physically plus relationally aggressive.

Children's Strategies and Behavioral Styles

A one-way MANOVA was conducted to determine whether children who differ in terms of their peer-nominated behavioral styles (i.e., physically aggressive, relationally aggressive, physically plus relationally aggressive, prosocial, and average) also differ in terms of their self-rated strategies (i.e., physically aggressive, relationally aggressive, and prosocial). It was expected that children who were identified by their peers as being physically aggressive would give higher rating to physically aggressive strategies than children identified as relationally aggressive or prosocial. On the other hand, it was hypothesized that children who were identified as being relationally aggressive would give higher ratings to relationally aggressive strategies, and children identified as prosocial would give higher ratings to prosocial strategies. Additionally, children classified as physically plus relationally aggressive were expected to rate both physically and relationally aggressive strategies higher than children classified as prosocial.

Gender Differences in Children's Goals, Strategies, and Behaviors

Gender differences were expected in terms of the strategies children select in specific conflict situations with their peers and their everyday behavioral styles as assessed by their peers. Based on previous research (Bjorkqvist et al., 1992; Crick, Casas et al., in press; Crick & Grotpeter, 1995; Feshbach, 1969; Feshbach & Sones, 1971; Lagerspetz et al. 1988; McNeilly-Choque et al., in press), it was expected that girls would

be more relationally aggressive than boys, and conversely, that boys would be more physically aggressive than girls.

Previous research also suggests that boys and girls differ in their pursuit of social goals (Chung & Asher, 1995; 1996; Ford, 1982; Slaby & Guerra, 1988). Thus, gender differences in children's goals were examined. Due to the fact, however, that little research has been conducted in this area and the exact nature of the relationship between these two variables is not entirely clear, no specific predictions regarding gender differences in children's goals were made.

There does exist, in this study, the potential for a confound between aggressive behavior and gender in the examination of children's goals. This was due to the fact that the relationally aggressive group was expected to consist mainly of girls and the physically aggressive group mostly of boys. Should boys select the same goals as physically aggressive children, and girls similar goals to that of relationally aggressive children, it would be impossible to determine whether significant differences in goal selection are due to gender or aggression-status. On the other hand, if these groups differ in terms of goal selection, results should be more easily interpreted. An ideal solution to this problem would be to identify both boys and girls who are relationally and physically aggressive. However, since it is mostly boys who are generally identified as being physically aggressive and girls who are discovered to be relationally aggressive, a very large sample size would be needed to identify both boys and girls for these groups. Thus

results were, of necessity, interpreted according to the findings obtained for separate analyses of behavioral and gender differences in goal selection.

Methodology

Subjects

A total of 493 children were in the 19 classrooms included in this study. However, only 274 children (56%) were given permission to participate. The remaining 44% of children either did not return their consent forms, or returned their forms indicating that they did not have permission to participate. Thus, the final sample consisted of 274 children from four rural schools in the Ottawa area. Participants were predominantly Caucasian and of a middle to lower-middle class background. The sample included 64 fourth (36 boys and 28 girls), 124 fifth (65 boys and 59 girls), and 86 sixth grade children (38 boys and 48 girls). Children ranged in age from 8- to 13-years-old, with the mean age of the sample being 10 years.

Measures

Subjects were asked to complete a behavioral nomination measure and a conflict resolution measure.

Behavioral Nomination Measure (adapted from Crick & Grotpeter, 1995)

Children were presented with a list of 13 items which described physically aggressive, relationally aggressive, and prosocial behavioral characteristics. They were asked to list up to three of their classmates who displayed each of those characteristics

(see Appendix A). Five of these items referred to relationally aggressive behavioral characteristics (i.e., when mad, starts being friends with someone else to get back at the person; when mad, gets even by keeping the person from being in their group of friends; tells friends they will stop liking them unless the friends do what they say; when mad, ignores people or stops talking to them; tries to keep people from being in their group during activities or play time). Four of these items were used previously in a measure developed by Crick and Grotpeter (1995). A fifth item used in their measure, "tries to make other kids not like a certain person by telling rumors or mean lies about that person" was dropped from the present measure because it was discovered to cross-load with overt aggression (Crick and Grotpeter). Another item, "when they are mad at a person, they start being friends with someone else to get back at the person" was substituted in the present study. This item has been used previously in reference to indirect (Bjorkqvist et al., 1992; Lagerspetz et al., 1988), and relational aggression (Delveaux et al., 1996).

The original measure developed by Crick and Grotpeter (1995) also consisted of five items designed to assess overt (i.e., physical and verbal) aggression. Results of research suggests that, when physical and verbal aggression are examined separately, a number of differences may be discovered between them (e.g., Bjorkqvist et al., 1992; Crick, Bigbee et al., in press; Delveaux et al., 1996; Verlaan & Schwartzman, 1996). Thus, an attempt was made to separate these two types of aggressive behavior in the

present study. However, the examination of both of these behaviors would have required the inclusion of a large number of items in the peer-nomination measure. Since the measure was to be administered during class-time, the length of time required to complete the nominations was of concern. Thus, only physically aggressive behaviors were chosen for examination, in order to make the peer-nomination measure as short as possible. Consequently, the remainder of the peer-nomination measure consisted of four physically aggressive and four prosocial items used by Crick and Grotpeter (1995).

The original measure developed by Crick and Grotpeter (1995) has demonstrated adequate reliability. A factor analysis of the items revealed four distinct factors (prosocial behavior, overt aggression, relational aggression, and isolation). Factor loadings for the items ranged from .73 to .92 and inter-item reliability was high (alpha ranged from .83 to .94 for the four scales). In addition, children's peer-assessed overt and relational aggression were found to be stable over a one month period (boys' overt aggression: $r = .93$, $p < .001$; boys' relational aggression: $r = .86$, $p < .001$; girls' overt aggression: $r = .81$, $p < .001$; girls' relational aggression: $r = .80$, $p < .001$) and 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: $r = .68$, $p < .001$).

Children's Conflict Resolution Measure (adapted from Chung & Asher, 1996)

This measure consists of nine conflict vignettes designed to assess children's goals and strategies in conflict situations, plus one practice question (see Appendix B).

The nine conflict vignettes represent a variety of interpersonal conflicts that can occur between two elementary school children. Each situation involving overt incompatibility between two children's needs or interests. The following is an example of one of these conflict situations: "You go out for recess and decide that you want to play on the swings. There is only one swing left. As you are about to get on the swing, a classmate comes over and says he wants to play on that swing too. You tell him that he can get on after you are done, but he tries to take the swing away from you."

Following the presentation of each vignette, children were asked a question about their strategies (i.e., "What would you do?"). Six different strategies were presented, each of which was to be rated on a 5-point scale in terms of how likely children would be to perform that particular strategy (i.e., "1 = Definitely Not" to "5 = Definitely Would"). These strategies included: extreme physical aggression, mild physical aggression, extreme relational aggression, mild relational aggression, polite request, and compromise. Children were also asked to select the strategy which they would perform first.

Next, children were asked to rate their goals (i.e., "What would be your goal?") on a 5-point scale. This scale assessed the degree to which children agreed or disagreed that they would pursue each of seven different goals (i.e., "1 = Really Disagree" to "5 = Really Agree"). These goals were: pursuing self-interest, maintaining personal control, revenge, avoiding trouble, maintaining equality, maintaining relationships with the focus

peer, and maintaining relationships among the peer groups as a whole. In addition, children were asked which one of the goals presented would be their top goal.

The original conflict measure developed by Chung and Asher (1996) assessed 11 different types of strategies. This measure was found to be highly reliable, with Cronbach alpha ranging from .82 to .93 for children's goals and .84 to .96 for children's strategies across nine conflict situations. However, in our study, we were interested only in physically aggressive, relationally aggressive, and prosocial strategies. Since time was a concern, all other strategies were dropped from the measure. Thus, we retained four of the original strategy types developed by Chung and Asher: two physically aggressive strategies (i.e., extreme and mild), and two prosocial strategies (polite request and compromise). Since, Chung and Asher's measure did not include any relationally aggressive strategies, two were developed for the present study: one extreme and one mild relationally aggressive strategy. These strategies were developed based on previous definitions of relational aggression and items which have been used to assess relationally aggressive behaviors (e.g., Crick, 1996; Crick & Grotpeter, 1995).

Slight modifications were also made to the goals assessed by this measure. Two of the goals included by Chung and Asher (1996) which were not of interest in this study were dropped from the measure (i.e., pursuing fairness, and avoiding injury), and one goal was added. The new goal was one regarding children's relationships with their peers. Chung and Asher's (1996) measure included a goal labeled "maintaining good

relationships". This goal assesses the degree to which children hope to maintain a good relationship with the particular peer with whom they are in conflict. However, it is possible that some children may have another relationship goal, which could possibly differ from this one, that of maintaining relationships or status within the peer group as a whole. Thus, the goal "maintaining relationships within the peer group" was added to the measure, for a total of seven different goals for each conflict situation (i.e., self-interest, personal control, revenge, avoiding trouble, pursuing equity, maintaining good relationships with focus peer, maintaining relationships within the peer group).

In terms of presentation, Chung and Asher (1996) first asked children about their strategies for hypothetical situations, in order to elicit their goals (i.e., "What are you going to do or say in this situation?" then "Why are you doing or saying that?"). Chung and Asher (1995), however, assessed children's goals and strategies in separate sessions, in order to rule out the possibility that children's goals could simply have been post-hoc justifications for their strategy selections. Significant relations were discovered between children's goals and strategies, regardless of how they were assessed. Thus, the decision was made in this study, to examine children's goals and strategies in the same session, in order to minimize the inconvenience to teachers and students in terms of class interruption. Therefore, children were asked first about their strategies and then about their goals for each particular situation. Additionally, consistent with the procedure of Chung and Asher (1995), the Conflict Resolution Measure was gender matched. In other

words. girls were given a questionnaire describing conflict situations with hypothetical female peers, and boys were presented with a questionnaire describing conflicts with male peers.

Procedures

Administration

Parental permission letters were sent home with the children (see Appendix C). Those children who received parental consent were then presented with the Behavioral Nomination Measure and the Conflict Resolution Measure. These measures were administered in the classroom during a group session, lasting approximately one hour. A graduate student read each of the questions out loud, while the children followed along on their own questionnaires, and then recorded their responses on the answer sheet provided. The peer nomination measure was presented before the conflict resolution measure so that children would not be focused on their nominations at the end of the session. Also, these measures were presented in the early morning, so that children would not be proceeding directly to lunch-break where they might discuss their nominations. After the presentation of the peer-nomination instrument, children were asked to refrain from discussing their responses with their classmates. Finally, at the end of the session, an oral debriefing (see Appendix D) was read to the children, and a parental debriefing letter (see Appendix E) was sent home with the children.

Classification of Children into Groups

A total of 19 classrooms were examined in this study, with the number of children in each classroom ranging from 4 to 27. Since 2 of the classrooms were considered too small (i.e., 4 and 5 children per class) to allow for a reliable examination of the peer nomination data, only 17 classrooms were included in any analyses involving peer nominations of children's behavioral styles. With the exclusion of these two classes, the number of children per classroom now ranged from 9 to 26, with a mean number of 16 children per class.

The nominations that children received on the Behavioral Nomination Measure were used to classify children into five groups: physically aggressive, relationally aggressive, physically plus relationally aggressive, prosocial, and average. First, the number of nominations that children received for each of the items on this measure were summed. Thus, each child received a score (ranging from 0 to the total number of children in the class minus 1) for each of the 13 items in the measure. Next, due to the fact that the number of children in each classroom varied, these scores were standardized within each classroom. These standardized scores were then averaged to yield three total scores (i.e., physical aggression, relational aggression, and prosocial behavior).

In order to identify extreme groups of children who differed in terms of their social behavior, criterion cut-off scores were established based on these three scores. This is a procedure which has been used by other researchers. For example, Chung and Asher

(1996) used a similar procedure for group identification (i.e., standardized scores greater than 1 on the defining measure and less than .75 on the other measures).

In the present study, children were classified into different groups according to the following criteria: 1) children with scores more than one standard deviation (SD) above the sample mean on the prosocial scale and less than 1/2 SD above the sample mean on the physical and relational aggression scale were classified as Prosocial; 2) children with scores more than one SD above the sample mean on the physical aggression scale and less than 1/2 SD above the sample mean on the other two scales were classified as Physically Aggressive; 3) children with scores more than one SD above the sample mean on the relational aggression scale and less than 1/2 SD above the sample mean on the other two scales were classified as Relationally Aggressive; 4) children with scores more than one SD above the sample mean on both the physical aggression scale and the relational aggression scale and less than 1/2 SD above the sample mean on the prosocial scale were classified as Physically plus Relationally Aggressive; and 5) children with scores less than 1/2 SD above the sample mean on all three scales (i.e., prosocial, physical aggression, relational aggression) were classified as Average. This procedure resulted in the identification of 20 physically aggressive children, 17 relationally aggressive children, 9 physically plus relationally aggressive children, 30 prosocial children, and 124 average children.

There were three other groups of children which might possibly have been identified using this procedure: 1) children with scores more than one SD above the sample mean on both the physical aggression and prosocial scales, and less than 1/2 SD above the sample mean on the relational aggression scale; 2) children with scores more than one SD above the sample mean on the relational aggression and prosocial scales, and less than 1/2 SD above the sample mean on the physical aggression scale; and 3) children with scores more than 1 SD above the mean on all three scales (i.e., physical aggressive, relational aggression, and prosocial behavior). However, due to the fact that very few children were classified into these groups ($n = 1, 3, 0$ respectively), as well as the fact that these groups were not of primary interest in this study, subsequent analyses focused on only five groups of children (i.e., physically aggressive, relationally aggressive, physically plus relationally aggressive, prosocial, and average).

Results

To assess the study objectives, analyses were conducted to examine the relations between: 1) children's goals and strategies in conflict situations; 2) children's self-rated strategies in specific conflict situations and their everyday behavioral styles, as assessed by their peers; and 3) children's goals and their behavioral styles.

Children's Goals and Self-Rated Strategies

First, we examined the relation between children's self-rated goals (i.e., self-interest, personal control, revenge, avoiding trouble, pursuing equity, maintaining good

relationships with focus peer, maintaining relationships/status within the peer group) and their self-rated strategies (i.e., physically aggressive, relationally aggressive, and prosocial) in specific conflict situations with their peers. Before conducting any analyses, the reliability of children's ratings of potential goals and strategies was assessed by calculating Cronbach alphas coefficients for each of the goals and strategies across nine conflict situations (see Table 2). All of the strategy scales were discovered to be highly reliable, with alpha ranging from .86 to .94. Similarly, all of the goal scales were extremely reliable (alpha = .89 to .96), with the exception of the self-interest goal (alpha = .67). The low reliability of this scale was surprising given the high reliability (alpha = .82) obtained by Chung and Asher (1995). Therefore, alpha for the self-interest goal was calculated across every combination of eight scenarios with one scenario excluded from the analysis. It was determined that the alpha increased substantially (i.e., from .67 to .84) when the first conflict situation was deleted from the analysis. Thus only the final eight conflict situations were considered in any further analyses involving children's self-interest goals.

Due to the fact that we had many variables to examine (i.e., six strategies and seven goals), an attempt was made to combine some of the variables which were expected to be highly related. Thus the correlations between a number of strategies (i.e., extreme

Table 2

Cronbach Alpha Coefficients for Strategies and Goals Across Nine Conflict Situations

Strategies	Alpha	Goals	Alpha
Extreme Physical Aggression	.93	Self-Interest	.84 ^a
Mild Physical Aggression	.94	Personal Control	.94
Extreme Relational Aggression	.92	Revenge	.93
Mild Relational Aggression	.91	Avoiding Trouble with Adults	.95
Polite Request	.89	Pursuing Equity	.89
Compromise	.86	Relationships - Focus Peer	.94
		Relationships/Status - Peer Group	.96

^aCronbach Alpha for the Self-Interest Goal was based only on eight conflict situations due to the fact that Alpha increased substantially (i.e., from .67 to .84) with the exclusion of the first conflict scenario. Any subsequent analyses involving the Self-Interest Goal is therefore based only on the last eight conflict scenarios.

and mild physical aggression, extreme and mild relational aggression, polite request and compromise) were determined. Since these correlations were found to be highly significant ($r = .85, .86, .81$ respectively, $p < .001$), these six strategies were combined to make three new variables: physically aggressive, relationally aggressive, and prosocial strategies.

In order to determine the relation between children's goals and strategies, correlation coefficients were calculated between each of the three strategies and seven goals assessed. Results indicate that children's goals and strategies in conflict situations with their peers are significantly related (see Table 3). For example, self-interest, personal control, and revenge goals were positively correlated with physically and relationally aggressive strategies, whereas the revenge goal was negatively correlated with prosocial strategies. In contrast, the goals of maintaining equality and relationships with the focus peer were discovered to be negatively correlated with the use of physically and relationally aggressive strategies, and positively correlated with prosocial strategies. Also, relationally aggressive and prosocial strategies were positively correlated with goals involving avoiding trouble with adults and maintaining relationships with the peer group. In fact, only four of the correlations examined did not reach significance (i.e., prosocial strategies with self-interest and control goals, physically aggressive strategies with the goals of avoiding trouble and maintaining relationships with the peer group).

Table 3
Correlations between Children’s Goals and Strategies (N = 273)¹

Strategies	Goals					
	Self-Interest	Personal Control	Revenge	Avoiding Trouble	Maintaining Equality	Relationships Focus Peer Relationships Peer Group
Physical Aggression	.31***	.21***	.75***	.02	-.59***	-.56*** .09
Relational Aggression	.28***	.27***	.70***	.19**	-.40***	-.40*** .30***
Prosocial	.02	.03	-.55***	.27***	.88***	.80*** .14*

¹ One of the participants completed the rating scales for the goal and strategy measures incorrectly. Therefore, that participant’s data was excluded from this analysis.

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

The results of these correlations seem to indicate that physically and relationally aggressive strategies were related to many of the same goals. These strategies did appear to differ, however, in terms of their relation to the goals of avoiding trouble and maintaining relationships among the peer group. Specifically relationally aggressive strategies were positively correlated with these goals, whereas physically aggressive strategies were not discovered to be significantly related to these goals at all. Thus, z-tests were calculated in order to determine whether the correlations between children's ratings of physically aggressive strategies and the goals of avoiding trouble (or maintaining relationships among the peer group) differed significantly from the correlations between children's ratings of relationally aggressive strategies and these goals.

Results indicate that the correlation between children's ratings of relationally aggressive strategies and the goal of avoiding trouble differed significantly from the correlation between children's ratings of physically aggressive strategies and this goal, $z = -2.00, p < .05$. Specifically, relationally aggressive strategies were found to be more strongly positively related to the goal of avoiding trouble with adults than were physically aggressive strategies. In addition, results of a second z-test indicate that the correlation between physically aggressive strategies and the goal of maintaining relationships among the peer group also differed significantly from the correlation between relationally aggressive strategies and this goal, $z = -2.56, p < .05$. Again, relationally aggressive

strategies were discovered to be more strongly positively related to this goal than were physically aggressive strategies.

The relation between children's goals and strategies was examined further through the use of canonical analysis. The purpose of canonical correlation is to examine the relations between two sets of variables. A set of variables on one side (e.g., a set of children's goals) is combined with a set of variables on the other side (e.g., a set of children's strategies) to produce a predicted value that has the highest correlation with the predicted value on the other side. Thus, canonical correlation allows you to look at and interpret the relations between one set and another set of variables. Due to the fact that there are a number of variables on each side, it may be possible to recombine the variables on each side in several ways in order to relate them to each other. Therefore, more than one canonical correlation may be discovered.

First, inter-correlations between children's strategies and goals were calculated in order to determine the relations among the variables in each set (see Tables 4 and 5, respectively). Next, canonical correlations between children's goals and strategies were determined. Results of canonical analysis reveal three significant canonical correlations: (1) $r = .92$ (84% of variance), $F(21, 755) = 51.72$, $p < .001$; (2) $r = .69$ (47% of variance), $F(12, 528) = 18.56$, $p < .001$; (3) $r = .26$ (7% of the variance), $F(5, 265) = 3.76$, $p < .01$. Total percent of variance and total redundancy indicate that the first pair of canonical variates is highly related, the second pair is moderately related, and the third pair is only

Table 4

Inter-Correlations between Children's Strategies (N = 273¹)

Strategy	Strategy		
	1	2	3
1. Physical Aggression	--	.63***	-.60***
2. Relational Aggression		--	-.39***
3. Prosocial Behavior			--

¹ One of the participants completed the rating scales for the goal and strategy measures incorrectly. Therefore, that participant's data was excluded from this analysis.

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

Table 5

Inter-Correlations between Children's Goals (N = 273¹)

Goals	Goals						
	1	2	3	4	5	6	7
1. Self-Interest	--	.48***	.36***	.38***	-.09	-.10	.37***
2. Personal Control	--	--	.26***	.50***	-.01	.06	.37***
3. Revenge	--	--	--	.03	-.56***	-.54***	.20**
4. Avoiding Trouble	--	--	--	--	.27***	.30***	.56***
5. Equality	--	--	--	--	--	.80***	.12*
6. Relationships-Focus Peer	--	--	--	--	--	--	.21**
7. Relationships-Peer Group	--	--	--	--	--	--	--

¹ One of the participants completed the rating scales for the goal and strategy measures incorrectly. Therefore, that participant's data was excluded from this analysis.

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

minimally related. Thus, results of the final canonical variate will be interpreted with caution, due to the fact that this variate accounted for only a small percent of the variance. Correlations (structure coefficients), standardized canonical coefficients, canonical correlations, percents of variance, and redundancies between children's goals and strategies are presented in Table 6.

With a cutoff correlation of .3, all three variables in the strategy set (i.e., physical aggression, relational aggression, and prosocial behavior) were correlated with the first canonical variate. The variables from the goal set which were correlated with the first canonical variate were: revenge, equality, maintaining relationships with the focus peer. The first pair of canonical variates indicates that high ratings of prosocial strategies and low ratings of physically and relationally aggressive strategies were associated with high ratings of goals involving the maintenance of equality and relationships with the focus peer and low ratings of revenge goals.

The second canonical variate was composed of physical and relational aggression from the strategy set and self-interest, personal control, revenge, avoiding trouble, and maintaining relationships among the peer group from the goal set. The results of the second canonical variate indicate that children who rated both physically and relationally aggressive strategies highly also gave high ratings to goals involving self-interest, personal control, revenge, avoiding trouble, and maintaining relationships among the peer group.

Table 6

Correlations (Structure Coefficients), Standardized Canonical Coefficients, Canonical Correlations, Percents of Variance, and Redundancies between Children's Goals and Strategies

	First Canonical Variate		Second Canonical Variate		Third Canonical Variate	
	Correlation	Coefficient	Correlation	Coefficient	Correlation	Coefficient
Canonical Correlations	.92		.69		.26	
Strategy Set						
Physical Aggression	-.76	-.17	.50	.64	-.42	-1.33
Relational Aggression	-.60	-.19	.69	.64	.41	1.10
Prosocial Behavior	.96	.79	.27	.91	.01	-.36
Percent of Variance	.53		.12		.01	
Redundancy	.62		.26		.11	
Goal Set						
Self-Interest	-.10	.14	.58	.21	-.42	-.84
Personal Control	-.07	-.02	.49	.03	-.01	.02
Revenge	-.75	-.32	.62	.92	-.09	-.17
Avoiding Trouble	.19	-.06	.55	.19	.34	.25
Equality	.95	.58	.23	.63	.10	.19
Relations-Focus Peer	.87	.27	.16	.09	.05	-.54
Relations-Peer Group	.04	-.04	.54	.07	.62	.90
Percent of Variance	.32		.23		.10	
Redundancy	.27		.11		.01	

Variables from the strategy set which were correlated with the third canonical variate were physical and relational aggression. Self-interest, avoiding trouble, and maintaining relationships among the peer group were the variables from the goal set associated with this canonical variate. Results indicate that children who gave high ratings to relationally aggressive strategies, but low ratings to physically aggressive strategies gave low ratings to self-interest goals and high ratings to avoiding trouble and maintaining relationships among the peer group.

Children's Self-Rated Strategies and Peer-Nominated Behavioral Styles

First, a principal components factor analysis with VARIMAX rotation of the factors was conducted on the nominations children received from the Peer Nomination Measure. Three factors emerged from this analysis: physical aggression, relational aggression, prosocial behavior. These three factors accounted for 76.8% of the variance: the physical aggression factor accounted for 37.3% (eigenvalue = 4.85), the relational aggression factor for 21.5% (eigenvalue = 2.79), and the prosocial behavior factor for 18% of the variance (eigenvalue = 2.34). All items were discovered to load substantially on the three factors. Factor loadings ranged from .696 to .937 and no item cross-loaded on any other factor at a value greater than .432 (see Table 7). In addition, inter-item reliability was discovered to be high for all scales ($\alpha = .96, .87, .88$, for physical aggression, relational aggression, and prosocial behavior, respectively).

Table 7

Factor Loadings for the Peer Nomination Instrument

Item	Factor		
	Physical Aggression	Relational Aggression	Prosocial Behavior
Hits others.....	.936	.097	-.099
Pushes others.....	.924	.189	-.092
Beats up others.....	.937	.037	-.089
Starts fights.....	.905	.204	-.110
When mad, starts being friends with someone else to get back at the person.....	.054	.837	-.065
When mad, gets even by keeping the person from being in their group of friends.....	.206	.844	-.054
Tells friends they will stop liking them unless the friends do what they say.....	.138	.773	.004
When mad, ignores people or stops talking to them.....	-.065	.824	-.075
Tries to keep people from being in their group during activities or play time.....	.432	.696	.034
Good leader.....	-.029	-.045	.817
Does nice things.....	-.132	-.073	.859
Helps others.....	-.087	-.057	.894
Cheers up others.....	-.084	.024	.862

The factor loadings for relational aggression and prosocial behavior items in this study are very similar to those obtained by Crick and Grotpeter (1995). For example, Crick and Grotpeter reported factor loadings ranging from .727 to .837 (as compared to loadings of .696 to .844 in the present study) for relational aggression, and loadings of .789 to .899 (as compared to loadings of .817 to .894 in the present study) for prosocial behavior. It wasn't possible to compare factor loadings for the physical aggression items in this study, since Crick and Grotpeter examined overt aggression instead.

A one-way MANOVA, with five levels of the independent variable (i.e., children's behavioral style), was conducted in order to determine whether children who differ in terms of their peer-nominated behavioral styles (i.e., physically aggressive, relationally aggressive, physically plus relationally aggressive, prosocial, and average) also differ in terms of their self-rated strategies (i.e., physically aggressive, relationally aggressive, and prosocial). The MANOVA indicated a significant group effect, $F(12, 582) = 3.30, p < .001$. Univariate analyses of variance indicate that these groups differed in terms of physically aggressive strategies, $F(4, 194) = 2.66, p < .05$, and prosocial strategies, $F(4, 194) = 1.39, p = .05$. No significant univariate effects were discovered in terms of children's relationally aggressive strategies.

Tukey's tests, with an overall significance level of .05, were conducted in order to determine any differences in physically aggressive strategies due to classifications status. Only two groups were discovered to differ in terms of their ratings of physically

aggressive strategies. Specifically, the physically plus relationally aggressive group rated physically aggressive strategies higher than the prosocial group. Tukey's tests were again conducted to examine differences between groups in terms of prosocial strategies. However, with an overall significance level of .05, no two groups were discovered to differ in terms of their ratings of prosocial strategies. Table 8 shows means and standard deviations for children's strategies and goals by group classification.

Children's Self-Rated Goals and Peer-Nominated Behavioral Styles

A one-way Multivariate Analysis of Variance (MANOVA), with five levels of the independent variable, was conducted in order to determine whether children classified as physically aggressive, relationally aggressive, physically plus relationally aggressive, prosocial, or average differ in terms of their social goals (i.e., self-interest, personal control, revenge, avoiding trouble, pursuing equity, maintaining good relationships with focus peer, maintaining relationships within the peer group). The overall MANOVA was not significant, $F(28, 764) = 1.35, p > .05$.

Gender Differences

It was next of interest to assess gender differences in children's peer-nominated behavioral styles, as well as their self-rated goals and strategies (see Table 9 for means and standard deviations).

Table 8

Means and Standard Deviations for Self-Ratings of Strategies and Goals by Group Classification based on Peer Nominations

	Group Classification				
	Physically Aggressive (n = 20)	Relationally Aggressive (n = 17)	Physically & Relationally Aggressive (n = 9)	Prosocial (n = 30)	Average (n = 123 ^a)
Self-Rated Strategies	<u>M (SD)</u>	<u>M (SD)</u>	<u>M (SD)</u>	<u>M (SD)</u>	<u>M (SD)</u>
Physical Aggression	1.97 (1.08)	1.51 (.47)	2.51 (.99)	1.53 (.58)	1.97 (.95)
Relational Aggression	1.92 (.99)	1.43 (.48)	1.41 (.35)	1.52 (.57)	1.76 (.80)
Prosocial Behavior	4.20 (.59)	4.36 (.41)	4.24 (.44)	4.17 (.53)	3.90 (.87)
Self-Rated Goals					
Self-Interest	3.66 (.86)	3.66 (.92)	4.11 (.56)	3.24 (.99)	3.60 (.80)
Personal Control	3.85 (1.14)	3.73 (.90)	4.08 (.88)	3.48 (1.16)	3.66 (1.08)
Revenge	2.11 (1.02)	1.72 (.48)	2.13 (1.11)	1.59 (.76)	1.98 (.97)
Avoiding Trouble	3.96 (.95)	4.01 (.95)	3.96 (.84)	3.25 (1.29)	3.50 (1.16)
Maintaining Equality	4.23 (.55)	4.53 (.49)	4.32 (.57)	4.34 (.58)	3.95 (.99)
Relationships-Focus Peer	4.06 (.69)	4.32 (.64)	4.10 (.81)	3.82 (.84)	3.68 (1.10)
Relationships-Peer Group	3.27 (1.14)	3.38 (.99)	3.01 (1.39)	2.76 (1.18)	2.91 (1.15)

^a 124 children were classified as average. However, one of these children did not complete the strategy measure correctly and was thus eliminated from this analysis.

Table 9

Means and Standard Deviations of Children's Peer-Nominated Behavioral Styles
(Standardized Scores). Self-Rated Strategies. and Self-Rated Goals by Gender

Variable	Gender	
	Male	Female
	<u>M (SD)</u>	<u>M (SD)</u>
Peer-Nominated Behavioral Styles	n = 134	n = 128
(Standardized Scores)		
Physical Aggression	.29 (1.09)	-.31 (.46)
Relational Aggression	-.10 (.65)	.11 (.85)
Prosocial Behavior	-.05 (.78)	.05 (.86)
Self-Rated Strategies	n = 138	n = 135
Physical Aggression	2.15 (1.02)	1.64 (.68)
Relational Aggression	1.81 (.82)	1.65 (.70)
Prosocial Behavior	3.92 (.80)	4.12 (.67)
Self-Rated Goals	n = 138	n = 135
Self-Interest	3.70 (.80)	3.50 (.85)
Personal Control	3.75 (1.13)	3.71 (1.02)
Revenge	2.06 (1.02)	1.78 (.80)
Avoiding Trouble	3.69 (1.21)	3.51 (1.12)
Maintaining Equality	3.97 (.93)	4.20 (.73)
Relationships - Focus Peer	3.73 (1.01)	3.96 (.92)
Relationships - Peer Group	3.02 (1.22)	2.87 (1.09)

Peer-Nominations of Behavioral Styles

First, a descriptive analysis of the percentage of boys and girls who were classified as physically aggressive, relationally aggressive, physically plus relationally aggressive, prosocial, and average, was conducted. Approximately equal percentages of boys and girls were classified as average (47.5% of the boys vs. 43.0% of the girls) and prosocial (8.6% of the boys vs. 13.3% of the girls). However, large gender differences existed in the classification of the remaining three groups. For example, the physically aggressive and physically plus relationally aggressive groups consisted mainly of boys (12.2% of boys vs. 2.2% of girls, and 5.8% of boys vs. 0.7% of girls, respectively). In contrast, the relationally aggressive group consisted entirely of girls (12.6%). Similar to the findings of Crick & Grotpeter (1995) these results indicate that both boys (18.0%) and girls (15.5%) may be identified as aggressive when both physical and relational forms of aggressive behavior are considered.

Second, a multivariate analysis of variance (MANOVA) was conducted in which children's scores on the physical aggression, relational aggression, and prosocial scales served as the dependent variables and gender as the independent variable. The MANOVA yielded a significant group effect, $F(3, 258) = 20.56, p < .001$. Univariate analysis of variance revealed that boys were more frequently nominated for physically aggressive items than girls, $F(1, 260) = 33.66, p < .001$, and that girls were more frequently nominated for relationally aggressive items than boys, $F(1, 260) = 4.87, p < .05$. The

univariate test of children's prosocial nominations did not reach significance, suggesting that boys and girls did not differ in terms of the number of nominations they received for prosocial behaviors.

Chung and Asher (1996) attempted to examine within gender differences in children's strategies (i.e., whether a certain type of strategy was employed more often than others, within each gender). In order to examine this relationship, these researchers conducted a series of paired t-tests. Consistent with this procedure, paired t-tests, with an overall significance level of .05, were conducted in order to examine within gender differences in children's scores on the peer-nomination scales. A total of three paired t-tests were conducted for each gender, each with an overall Type I error rate of .05 (i.e., .017 for each test), in order to examine whether each gender received more nominations for a particular type of behavior than another. These results indicate that boys received higher scores on the physically aggressive than either the relationally aggressive, $t(1, 133) = 5.13, p < .001$, or prosocial scales, $t(1, 133) = 2.66, p < .01$. In contrast, girls received higher scores on both the relationally aggressive, $t(1, 127) = -5.90, p < .001$ and prosocial scales, $t(1, 127) = -3.97, p < .001$, than on the physically aggressive scale. No significant differences were discovered between children's scores on the relationally aggressive and prosocial scales, for either boys or girls.

Self-Ratings of Strategies

Next, it was of interest to examine gender differences in children's strategies in conflict situations with their peers. A MANOVA was conducted using children's ratings of their use of physically aggressive, relationally aggressive, and prosocial strategies as the dependent variables. The MANOVA was found to be significant, $F(3, 269) = 8.78$, $p < .001$. Univariate analyses of variance indicate that boys rated physically aggressive strategies higher than girls, $F(1, 271) = 23.55$, $p < .001$, and that girls rated prosocial strategies higher than boys, $F(1, 271) = 5.18$, $p < .05$. No significant differences were discovered, however, in terms of the degree to which boys and girls endorsed relationally aggressive strategies.

In addition, paired t-tests were conducted in order to examine within gender differences in children's ratings of their strategies in conflict situations. Three paired t-tests were conducted for each gender, each with a significance level of $p = .017$, in order to determine whether a certain type of strategy was rated higher than the others. Results indicate that boys rated prosocial strategies higher than either physically aggressive strategies, $t(1, 137) = -12.65$, $p < .001$, or relationally aggressive strategies $t(1, 137) = 18.69$, $p < .001$. Furthermore, physically aggressive strategies were rated higher than relationally aggressive strategies by boys, $t(1, 137) = 4.50$, $p < .001$. Similar to boys, girls rated prosocial strategies higher than either physically aggressive, $t(1, 134) = -24.11$, $p < .001$, or relationally aggressive strategies, $t(1, 134) = 24.71$, $p < .001$. However, no

differences were discovered in the degree to which girls rated physically aggressive and relationally aggressive strategies.

Self-Ratings of Goals

A MANOVA, with children's ratings of their goals serving as the dependent variables, was conducted in order to examine gender differences in children's goals. The overall MANOVA was marginally significant, $F(7, 265) = 1.84, p = .08$, indicating a trend in the data. Thus, univariate analyses were examined, but should be interpreted with caution. Univariate analyses of variance suggest that girls rated goals which involved maintaining equality, $F(1, 271) = 5.03, p < .05$, and maintaining relationships with the focus peer, $F(1, 271) = 3.90, p < .05$, higher than did boys. On the other hand, self-interest, $F(1, 271) = 3.99, p < .05$, and revenge goals, $F(1, 271) = 6.02, p < .05$, were rated higher by males than by females. No significant univariate effects were discovered for the goals involving personal control, avoiding trouble, or maintaining relationships among the peer group.

Discussion

Children's Goals and Strategies

The results of this study suggest that children's goals are significantly related to their strategies in conflict situations with their peers. As hypothesized, prosocial strategies were positively correlated with goals involving the maintenance of equality, relationships with the focus peer, relationships among the peer group, and the avoidance

of trouble, and negatively correlated with the revenge goal. Conversely, physically aggressive strategies were positively correlated with self-interest, personal control, and revenge goals, and negatively correlated with goals involving the maintenance of equality and relationships with the focus peer. The same pattern of correlations was observed between children's relationally aggressive strategies and their goals. However, two additional results were discovered; relationally aggressive strategies were also positively correlated with the goals of avoiding trouble and maintaining relationships among the peer group.

The correlations obtained between children's physically aggressive and prosocial strategies and their goals in this study closely resemble the results reported by Chung and Asher (1995). This was discovered to be true even though several strategies were combined in this study (e.g., mild and extreme physical aggression, polite request and compromise strategies). There was, however, one exception; the goal of avoiding trouble was reported to be negatively correlated with physically aggressive strategies by Chung and Asher, but was not significantly correlated with physically aggressive strategies in this study. The exact nature of the relation between these two variables is therefore unclear and more research is needed before any firm conclusions can be made.

Furthermore, this study extends the findings of Chung and Asher (1995) in that the relationship between children's goals and their relationally aggressive strategies was also examined. The results of this study suggest that children's ratings of physically and

relationally aggressive strategies are related to many of the same goals. For example, both physically and relationally aggressive strategies were positively related to self-interest, control, and revenge goals, and negatively related to goals involving the maintenance of equality and relationships with the focus peer. Differences were discovered, however, in terms of children's ratings of goals involving avoiding trouble and maintaining relationships among the peer group (i.e., relationally aggressive strategies were positively correlated with these goals, whereas physically aggressive strategies were not significantly related to these goals at all).

Results of a canonical analysis may provide further insight into the relation between children's goals and strategies in conflict situations. First, children who gave high ratings to prosocial strategies and low ratings to aggressive strategies (both physical and relational) also gave high ratings to the goals of maintaining equality and relationships with the focus peer and low ratings to revenge goals. Thus, it appears that a high desire to maintain equality and relationships with the focus peer and a low desire for revenge may be particularly relevant to the selection of prosocial rather than aggressive strategies in conflict situations with their peers.

Second, children who rated both physically and relationally aggressive strategies highly also gave high ratings to goals involving self-interest, personal control, revenge, avoiding trouble, and maintaining relationships among the peer group. Crick and Grotpeter (1995) suggest that some children may be both physically and relationally

aggressive. Moreover, some children in the present study received frequent nominations from their peers for both physically and relationally aggressive items. Results of this canonical analysis, therefore, seem to suggest that children who employ both physically and relationally aggressive strategies may be more interested in goals involving self-interest, personal control, revenge, avoiding trouble, and maintaining relationships among the peer group. These are all goals which, coincidentally, correlated positively with relationally aggressive strategies. Thus, it may be that the goals of physically plus relationally aggressive children are more closely aligned with those of relationally aggressive children than those of physically aggressive children. However, these findings represent the results of only one study, and a great deal more research is needed before any conclusions can be drawn in this area.

A third canonical variate was discovered to be significant in this analysis. Children who gave high ratings to relationally aggressive strategies and low ratings to physically aggressive strategies also gave low ratings to self-interest goals and high ratings to goals of equality and maintaining relationships among the peer group. Thus, it appears that goals involving less self-interest, avoidance of trouble, and desire to maintain relationships among the peer group may be the most relevant in distinguishing between physically and relationally aggressive strategies. The finding that the later two goals were particularly relevant in distinguishing between physical and relational aggression was not surprising, given the fact that avoiding trouble and maintaining relationships among the

peer group were positively correlated with relationally aggressive strategies and unrelated to physically aggressive strategies. However, the fact that self-interest goals were found to distinguish among these two types of aggression was unexpected since both physically and relationally aggressive strategies were positively correlated with this goal.

The purpose of canonical analysis is to determine the best linear combination of variables in one set which is related to the best linear combination of variables in the other set. Thus discrepancies between canonical correlations and simple correlations in terms of the self-interest goal may be due to the fact that canonical correlations deal with relations among linear combinations of variables, whereas simple correlations are concerned with relations among single variables. However, one fact to keep in mind in terms of interpretation of this canonical variate is that the third canonical correlation, although significant, accounted for only 7% of the variance. Therefore, these findings should be interpreted with caution.

The fact that the third canonical variate accounted for little variance, however, is hardly surprising. One might expect that the first canonical variate which seems to distinguish between prosocial versus aggressive strategies would account for the most variance, due to the fact that these strategies are very different from each other. On the other hand, physically and relationally aggressive strategies, although distinguishable from one another, are more similar to one another than they are to prosocial strategies. Therefore it does make sense that the third canonical variate which seems to distinguish

among physically and relationally aggressive behaviors, would account for only a small proportion of the variance. For this reason, results of the third canonical variate are deemed important from a theoretical perspective. However, results should be treated as preliminary, and more research is needed before any firm conclusion should be made.

The results of this study suggest that physical and relational aggression are distinguishable from one another, and that there may be subtle differences between them. Overall however, it appears that, at least in terms of children's goals, physical and relational aggression may be more similar than dissimilar. In fact, one might ask whether physical and relational aggression are completely different constructs with different underlying motivations, or if they are really similar constructs which are manifested in dissimilar ways for one reason or another. Since it appears that physically and relationally aggressive strategies are related to many of the same goals, it may be that both of these strategies are selected in order to accomplish the same objectives (i.e., to get what they want from the situation, to maintain personal control, and to get revenge). At the same time, children who rate physically and relationally aggressive strategies highly, do not appear to be particularly interested in maintaining equality or maintaining relationships with the peer in question. However, those children who do not particularly care whether they get in trouble, or if the rest of the kids in their class like them or not, might employ a physically aggressive solution to the situation. On the other hand, children who are concerned with avoiding trouble with adults and making sure that the other kids will still

like them, may choose relationally aggressive strategies. It would make more sense to employ a relationally aggressive strategy in order to obtain these goals, since relationally aggressive strategies are more covert and children believe that relationally aggressive strategies are less likely to result in punishment than physically aggressive strategies (Delveaux, Daniels, & Clyde, 1996).

Summary

Children's strategies appear to be closely linked with their goals for social interaction. In particular, a combination of high ratings of prosocial strategies and low ratings of physically and relationally aggressive strategies was found to be associated with high ratings of goals involving the maintenance of equality and relationships with the focus peer and low ratings of revenge goals. Thus, it may be that these three goals are particularly important in terms of the contribution they might make to children's decision to employ a prosocial as opposed to an aggressive strategy in a conflict situation.

Also, it appears that some differences can be detected between children who choose to employ physically and relationally aggressive strategies. Specifically, relationally aggressive strategies were found to be positively related to goals involving the avoidance of trouble and the maintenance of relationships among the peer group, while physically aggressive strategies were found to be unrelated to these goals. In addition, results of canonical analysis suggest that self-interest goals may play some role in distinguishing between these two types of aggressive behavior.

Peer Nominations

Although the results of this study suggest that children's strategies are highly related to their goals, these findings should be interpreted with caution due to the fact that children's peer nominated behavior styles were not found to be highly related to their self-rated strategies, nor were they found to be related to their self-rated goals. In fact, the only significant relationship discovered was that the physically plus relationally aggressive group rated physically aggressive strategies higher than did the prosocial group. (A significant univariate effect was also discovered for children's ratings of prosocial strategies according to their peer-nominated behavioral styles. However, Tukey's tests did not reveal any significant differences between groups.)

Results of previous research suggests that children's peer-nominated behavioral styles are related to both their self-rated strategies (Chung & Asher, 1995; 1996; Erdley & Asher, 1996) and their self-rated goals (Lochman, et al., 1996). Thus, the relative lack of relations among these variables in this study are surprising. The Behavioral Nomination Measure used in the present study assessed children's physically aggressive, relationally aggressive, and prosocial behavior, and was adapted from a measure developed by Crick and Grotpeter (1995). Factor analysis of the peer-nomination items suggests that this measure reliably distinguishes between physically aggressive, relationally aggressive, and prosocial items, and also that inter-item reliability was high. However, there are a number of factors which may have influenced the reliability of

children's scores on these scales, and therefore, the accuracy of their behavioral classifications.

Low Percentage of Participation within Classrooms

First, in many of the classrooms, only a small number of children participated in the study. Thus, many children's peer nomination scores were based on the nominations of only 9, 10, 12, or 14 children. Moreover, not only were many of the class sizes small, but it appears that a small percentage of the students in the classroom actually participated in the study (i.e., classroom participation ranged from 15% to 82%). The two smallest classes were eliminated from any analyses related to children's peer-nominations (e.g., 4 children: 15% participation; 5 children 16% participation). However, the percentage of participation among the remaining classes was still very low (i.e., range: 33% to 82%; $M = 57\%$).

Crick and Ladd (1989) suggest that nominator attrition may adversely affect children's sociometric classifications (i.e., popular, average, neglected, rejected, controversial, and unclassified). Initially, these researchers determined the sociometric status of the children in 17 classrooms based on nominations received from all the children in each class. Subsequently, an attempt was made to approximate the type of sample that is typically used in sociometric research. This was accomplished by randomly selecting 90%, 80%, 70%, 60%, and 50% of the children from each class, and then recomputing children's status classifications. These researchers report that the accuracy

of children's status classifications became increasingly unstable as the percentage of nominators per classroom decreased. In addition, the degree of accuracy in classification was found to vary depending on the group in question. Furthermore, Crick and Ladd (1989) point out that the results of this study, based on a random selection of subjects, may underestimate the actual effects which may occur when subjects are lost in more systematic ways.

Although this study involved the use of behavioral, not sociometric nominations, it is likely that nominator attrition would affect children's behavioral classifications in a similar manner. Due to the fact that a low percentage of children in many classes participated in this study, the accuracy of the behavioral classifications may have been affected.

Instructions for Peer-Nomination Instrument

An additional factor which may have influenced the reliability of the peer nomination measure was the fact that children were allowed to nominate any of the children in their class for the behavioral items, even those children who were not allowed to participate in the study. Since these children did not have parental consent, these nominations were obviously not included in the data file or any subsequent analysis. Children were told that they could nominate any of the children in their class so that children's behavioral scores would not be "over-inflated", by having them nominate three classmates for each item, from a reduced sample of their classmates. However, due to the

fact that a small percentage of children participated in some of the classrooms, it is possible that some of the most physically aggressive, relationally aggressive, and prosocial children may not have even participated in the study.

In fact, an examination of the data for the two smallest classes suggests that most of the children who received many nominations for the physically aggressive, relationally aggressive, and prosocial items did not participate. For example, in the smallest class used in analysis of the peer-nomination data (i.e., 9 children, 33% participation) one out of the three children who received the most nominations for the most physically aggressive items, and none of children who received the most nominations for the most relationally aggressive and prosocial items participated in the study. Similarly, in the second smallest class (i.e., 10 children, 34% participation) none of the three children who received the most nominations for the physically aggressive items, two of the children who received the most nominations for the relationally aggressive items, and one of the three children who received the most nominations for the prosocial items participated in this study. Thus, it appears that a large percentage of the children who did participate in this study may have received few or an average number of nominations on these items. The behavioral scores of children who did not receive permission to participate were not used to determine group classification (i.e., the criterion of one standard deviation above the sample mean was based only on the behavioral scores of children who received permission to participate), nor were they included in any subsequent analysis.

Consequently, the variability in children's behavioral scores may have been reduced, thereby decreasing the likelihood of obtaining significant results.

Difficulties with Relationally Aggressive Items

Furthermore, children appeared to have more difficulty nominating their peers for relationally aggressive items than physically aggressive or prosocial items. This conclusion was based on the fact that during the administration of the peer nomination instrument, children sometimes asked "What if I can't think of anyone?" In response to this question, children were told that they should try to think of someone who might do it even once in a while, but if they absolutely couldn't think of anyone, then that was O.K. It appeared, however, that children asked this question most often in reference to the relationally aggressive items. A visual inspection of the questionnaires seems to confirm this observation, since blank spaces on the peer nomination response sheet were most often left for the relationally aggressive items, rather than the physically aggressive or prosocial items.

Summary

Although children's peer-nominated behavioral styles were not found to be highly related to their self-rated strategies or goals, the lack of significant findings in this case was likely due to difficulties with the peer-nomination measure, rather than an actual lack of relation between these variables. Most importantly, the small number of children, and

more specifically the low percentage of children within each class who participated in the study probably reduced the reliability of children's peer nominations.

There were two possible sets of instructions that children could have been given for the peer nomination measure in this study. Children could have been asked to nominate only those children who had been given consent to participate, or they could have been asked to nominate any of the children in their classroom for the behavioral items. If the percentage of children participating in the classes had been high, then these two methods would have produced similar, and probably reliable, results. However, both of these procedures could lead to problems if a low percentage of children in the classes participate. For example, nominating only participating children from a reduced sample of classmates could result in an "over-inflation" of children's behavioral scores. On the other hand, the option of nominating any of the children in the class may result in reduced variability of children's behavioral scores if the more "extreme" physically aggressive, relationally aggressive, and prosocial children do not participate in the study. In fact, the latter explanation seems likely in terms of the present study.

Therefore, the main problem with the peer-nomination measure in this study seems to be the low participation rate within classes. The consent rate for this study was 80%. Thus, although some children returned a consent form which stated that they did not have permission to participate in the study, the larger problem seems to be that many children did not return their consent forms at all. This could be due to a number of factors

(e.g., consent forms were lost, children forgot to give them to their parents or return them to school, parents forgot to sign them, teachers may have distributed the consent forms late or neglected to remind children to return them). Due to the fact that nominator attrition appears to adversely affect the accuracy of children's sociometric classifications (Crick & Ladd, 1989) and likely their behavioral classifications as well, researchers who employ peer-nominations should make every effort to ensure that the participation rate within classrooms is as large as possible. Although little can be done in terms of the children who do not receive permission to participate (aside from making sure that the study is explained as clearly as possible to parents at the outset, and attempting to address any concerns they may have), an attempt could be made to increase the proportion of consent forms that are returned. For instance it may be possible to offer some sort of reward for the return of the consent forms, whether or not children receive permission (e.g., a draw for a prize). In addition, if possible, researchers should attempt to discuss the study with teachers directly and emphasize the importance of regaining as many consent forms as possible so that teachers can remind children to return them.

Another problem with the peer-nomination measure in this study was the fact that children seemed to have more difficulty nominating their peers for the relationally aggressive, than for physically aggressive or prosocial items. This factor likely reduced the variability in children's relationally aggressive scores relative to their physically aggressive and prosocial scores. Previous researchers have described physical aggression

as an overt behavior (Crick, 1995; 1996; Crick, Bigbee et al., in press; Crick, Casas et al., in press; Crick & Grotpeter, 1995; McNeilly-Choque et al., in press). On the other hand, relational aggression might best be described as a more covert behavior. Thus, it is not surprising that children might experience more difficulty nominating their peers for these items, since relationally aggressive behaviors may be more difficult to detect, unless one happens to be either the aggressor or the victim of this type of aggression.

In conclusion, there were a number of factors in this study which may have influenced the reliability of children's peer-nominations. Specifically, the relative lack of significant relations between children's peer-nominated behavioral styles and their self-rated strategies and goals was likely due in large part to two factors. First, the fact that children appeared to have more difficulty nominating their peers for relationally aggressive than physically aggressive and prosocial items likely decreased the variability within children's relationally aggressive scores. Second, the low percentage of participation in many of the classes probably reduced the reliability of children's behavioral classifications. Thus, investigators who employ peer-nominations in their research should make an effort to ensure a high rate of participation within the classrooms they are studying.

Gender Differences

Peer-Nominated Behavioral Style

A number of differences between boys and girls were discovered in this study. First, boys received more nominations for physically aggressive items, whereas girls were more frequently nominated for relationally aggressive items. No significant differences were reported in terms of the number of nominations received by boys and girls for prosocial items. In addition, a descriptive analysis of the percentage of boys and girls classified as physically and relationally aggressive indicates that the physically aggressive group consisted mainly of boys and the relationally aggressive group consisted entirely of girls. These results are virtually identical to the findings of Crick and Grotpeter (1995) in regards to their examination of gender differences in overt and relational aggression.

Within gender differences were also discovered in that boys were nominated for more physically aggressive than relationally aggressive or prosocial items. Conversely, girls were nominated for more relationally aggressive and prosocial items than physically aggressive items. Thus, the results obtained from children's peer nominations of aggressive behavior suggest that relational aggression may be more typical of girls and physical aggression more typical of boys.

Self-Rated Strategies

An examination of gender differences in children's self-rated strategies indicated that boys rated physically aggressive strategies higher than did girls, whereas girls gave

higher ratings to prosocial strategies than boys. No significant differences were discovered in terms of boys' and girls' ratings of relationally aggressive strategies. However, an inspection of the means for this variable suggests that boys actually rated relationally aggressive strategies slightly higher than did girls ($M = 1.81$, $SD = .82$; $M = 1.65$, $SD = .70$, respectively). These results are comparable to those of Crick and Grotpeter (1995), who found that boys reported significantly higher use of both overt and relational aggression than did girls.

Similar findings were also discovered in terms of within gender differences. Specifically, boys rated physically aggressive strategies significantly higher than relationally strategies, whereas girls assigned similar ratings to both physically and relationally aggressive strategies. Moreover, both boys and girls rated prosocial strategies significantly higher than either physically or relationally aggressive strategies in conflict situations with their peers. This finding may be reflective of the fact that most children would actually choose to employ prosocial rather than aggressive strategies in conflict situations with their peers. This is good news for researchers, educators, and parents who are concerned with the nature of children's peer relations. However, it is also possible that the fact that children rated prosocial strategies higher than aggressive strategies may be reflective of a degree of social desirability in children's responses. It may be that children know the prosocial strategy is the "right" thing to do in that situation, and so

they rate those strategies higher. However, this does not mean that children always actually do what they say they would do.

Self-Rated Goals

Gender differences were also discovered in terms of children's ratings of goals in conflict situations. Specifically, girls rated goals involving the maintenance of equality and relationships with the focus peer higher than boys, and boys rated self-interest and revenge goals higher than did girls. These results should be interpreted with caution, due to the fact that the overall MANOVA was only marginally significant ($p = .08$). However, Chung and Asher (1995) reported very similar findings (i.e., girls rated relationship, equity, and fairness goals more positively than boys, and boys rated revenge goals more positively than girls). Thus, this study thus provides some support for the reliability of the results reported here.

Summary

The results of this study suggest that boys and girls differ in terms of their peer-nominated behavioral styles, in addition to their self-rated strategies and goals in conflict situations with their peers. However, gender differences in children's self-rated strategies were not the same as those discovered for children's peer-nominated behavioral styles. Specifically, boys were more frequently nominated for physically aggressive items and also reported a higher use of physically aggressive strategies in conflict situations with their peers. On the other hands, girls were more frequently nominated for relationally

aggressive items. However, no significant differences were discovered in terms of the ratings boys and girls assigned to relationally aggressive strategies.

It is possible that contextual differences (i.e., for peer nominations children were asked "who engaged in each behavior in general everyday situations", whereas for self-rated strategies children were asked to "rate each strategy in the context of a specific conflict situation with a peer") may account for the discrepancy in findings between these two variables. However, this seems unlikely due to the fact that Crick and Grotpeter (1995) report similar findings even though they asked children to rate the degree to which they engaged in physical and relational aggression in general everyday situations with their peers at school.

Most of the research concerning children's peer-reports of indirect aggression (Bjorkqvist et al., 1992; Feshbach, 1969; Feshbach & Sones, 1971; Lagerspetz et al., 1988), teacher-reports of relational aggression (Crick, Casas et al., in press; McNeilly-Choque et al., in press), as well as observations of relational aggression (McNeilly-Choque et al., in press) suggests that girls are more relationally or indirectly aggressive than boys. There have been a few studies, however, which failed to find any gender differences in children's relationally aggressive behavior, based on peer-reports of relational aggression (Crick, Casas et al., in press; McNeilly-Choque et al., in press) and indirect aggression (Verlaan & Schwartzman, 1996). The first two studies, however, were conducted among a preschool sample, and it is possible that young children's reports of

aggressive behavior may be less reliable than older children's. In addition, the measure used to assess indirect aggression in Verlaan & Schwartzman's study was confounded.

It is difficult to compare across different methods of assessment, since each may provide a unique perspective. Although one might argue that children's own reports of their behavior would be the most reliable, since these reports do not rely on outside sources of information, self-reports are subject to a social desirability bias. On the other hand, other observers such as peers, teachers, and trained researchers may not be privy to every behavior enacted by a child, but they are also not influenced by a desire to present themselves in a socially desirable fashion.

Although little research has been conducted regarding gender differences in relationally aggressive behavior, most of the research based on peer-reports, teacher-reports, and observations, suggests that girls are more relationally aggressive than boys. The results of the present study are consistent with these findings, in that girls were more frequently nominated for relationally aggressive items than were boys. The two studies which have assessed children's self-reports of relational aggression have found either that boys report higher use of relational aggression than girls (Crick and Grotpeter, 1995) or have not discovered any gender differences in children's ratings of relationally aggressive strategies whatsoever (the present study). In general, if one compares across different methods of assessment, it appears that girls are more relationally aggressive than boys. In fact it may be that girls, who have been socialized to be less aggressive and more ladylike

(e.g., Block, 1983), may be less likely to report aggressive behavior and more likely to report prosocial behavior, than boys.

Limitations and Suggestions for Improvement in the Present Study

There are a number of factors which may have influenced the results of this study, particularly the relatively weak relationship between children's self-ratings of their strategies and their peer-nominated behavioral styles. These limitations are related to the reliability of children's peer-nominations and possible social desirability responding in children's responses to the Conflict Resolution Measure.

Reliability of Children's Peer-Nominations

First, as previously discussed, the low percentage of children from each class who participated in the study likely reduced the reliability of children's peer-nominations, and by the same token, their behavioral classification. In addition, the fact that children were able to nominate any of the children in their class for the behavioral items meant that in some cases, those children nominated as being more physically aggressive, relational aggressive, or prosocial did not even participate in the study. The fact that this data was not used in subsequent analysis probably reduced the variability in the remainder of the scores that we did use. Moreover, children appeared to have more difficulty nominating their peers for the relationally aggressive than physically aggressive or prosocial items. It is likely that the fewer nominations children received for these items further reduced the

variability among children's relationally aggressive scores, thereby reducing the likelihood of detecting differences between groups.

The number of children who chose to participate in each classroom was beyond the control of the researchers in this study, and is generally out of control of any researcher. Unfortunately, due to time constraints within the school in addition to the fact that we wanted to be as unobtrusive and cause as little inconvenience as possible, only self-ratings of strategies and peer-reports of behavior were obtained in this study. It would have been useful, however, to obtain both teacher-ratings and observations, in addition to peer-nominations and self-ratings of children's behavioral styles. One advantage to using multiple informants is that one has other measures to "fall back on", should difficulties arise in one area of data collection (e.g., problems such as low percentage of participation within the classroom).

Moreover, had multiple informants been used, it would have been possible to compare between them. For example, McNeilly-Choque et al. (in press) reported that intermethod agreement among teacher-ratings, peer-nominations, and observations of preschoolers' relationally aggressive behavior was not high. It would have been interesting to determine whether relations among these three methods increased or remained the same among a school-aged sample of children.

Physically aggressive behaviors have been described as being more overt (Crick, 1995; 1996; Crick, Bigbee et al., in press; Crick, Casas et al., in press; Crick & Grotpeter,

1995: McNeilly-Choque et al., in press), whereas it seems as though relationally aggressive behaviors may be more covert. Due to the fact that relationally aggressive behaviors may be less easily observed than physically aggressive behaviors, it may be that peers, teachers, observers may experience more difficulty in perceiving and reporting these relationally aggressive behaviors. Thus, one might expect that inter-relations among these three methods of assessment for relationally aggressive behaviors would be low even among school-aged children, at least in relation to children's ratings of physically aggressive strategies.

Some researchers suggest, however, that the reliability and validity of children's peer-ratings may vary based on both the rater's age and the behaviors to be rated (Ladd & Mars, 1986; Younger, Schwartzman, & Ledingham, 1986). Moreover, McNeilly-Choque et al. (in press) reported that although children were able to reliably distinguish between relational and overt aggression, they were not as good as teachers in distinguishing between sub-types of overt aggression. Thus, it is possible that the reliability of children's peer-reports of aggressive behaviors, at least, may increase with age. It seems likely that cross-informant consistency would still be lower for relationally than physically aggressive behaviors among school-aged children. However, a potential increase in the reliability of children's peer-reports of relationally aggressive behavior as children get older could result in a higher concordance between peer-reports and other assessments of relationally aggressive behavior (e.g., teacher-reports, observations).

Another possible improvement to this study might have been the use of peer-ratings, rather than peer-nominations, of children's behavior. Through the use of peer-ratings, every child would receive a score, on every item, from each of the other children who participated in the study. In fact, this method would have eliminated one of the problems due to low percentage of participation within the classrooms, that of nominating children who weren't participating. By using peer-ratings, every child who participated would have been rated on a scale of one to five. However, the problem of a reduced percentage of the class performing these ratings would still exist. Unfortunately, peer-ratings were not an option in the present study, due to the fact that peer-ratings of every classmate for 13 behavioral items takes a great deal longer to complete than nominations of three peers for every item.

Possibility of Social Desirability Responding

A second limitation of the present research concerns the Conflict Resolution Measure (Chung & Asher, 1995). The original measure consisted of 11 different strategies which were actually generated by asking children to respond to an open-ended question (e.g., "What would you do?") in each of the nine conflict situations. From children's responses, these 11 strategy types were developed. Due to time constraints in the present study, only four of these categories were included in the present measure (i.e., extreme physical aggression, mild physical aggression, polite request, compromise), and

two other strategies were added (i.e., extreme relational aggression, mild relational aggression).

Although the deletion of these strategies from our measure did not affect the reliability of the remaining strategies across the conflict situations examined, it is unclear whether these changes may have affected the measure in other ways. For example, it is possible that the inclusion of only prosocial and aggressive strategies might have increased the degree of social desirability in children's responses. By the time children reach grades 4, 5, and 6, it is likely that they know what the socially desirable response in a specific situation might be, at least according to adult perceptions. Of the strategies examined in our study, aggressive and prosocial, it is probably obvious to children that the "correct" response is a prosocial one, whereas an aggressive response to a situation is generally perceived as being less acceptable. In fact, during the administration of the conflict resolution measure, children often laughed out loud or made fun of the more extreme physically aggressive responses. Thus, investigators who were administering the questionnaire were often required to ask children to keep their opinions and comments to themselves. It is possible, however, that these comments may have influenced the manner in which children responded to the more aggressive strategies.

Chung and Asher (1995), in contrast, studied a much wider range of strategies (i.e., assertive, withdrawn, and help-seeking, in addition to prosocial and aggressive strategies), which might not have all been considered either "good" or "bad" by children.

For example, if children can admit to performing a physically assertive strategy (e.g., turning the TV channel back) which might not be considered an extremely undesirable action, it may then be less of a stretch for them to admit to performing a physically aggressive strategy (e.g., pushing the child away from the TV). On the other hand "pushing someone away from the TV" is in far greater contrast to a response of "asking the child nicely to turn the channel back". Thus, the inclusion of these more "neutral" categories might have influence the manner in which children responded to the entire questionnaire, and might have lessened the degree of social desirability in children's responses.

Whether only aggressive and prosocial strategies, or a wider range of strategies are presented to children, it is still likely that their responses may be influenced by a desire to respond in a socially desirable fashion. For this reason, it might have been beneficial to include some sort of measure of social desirability in the questionnaire in order to determine whether children's responses were in fact affected in this manner. Furthermore, the purpose of this study was to gather as much information as possible about a large number of children, while causing the least inconvenience to participating schools. Therefore, a recognition task was used in this study, since they have been used successfully to study children's goals in the past (Chung & Asher, 1995; 1996; Crick & Dodge, 1996; Erdley & Asher, 1996; Lochman et al., 1993). However, a second possible

solution to the problem of social desirability responding would be to assess children's goals and strategies in an open-ended fashion.

Richard and Dodge (1982) report that popular and aggressive children differed not in terms of their evaluations of given solutions to peer group entry and peer conflict situations, but in terms of their actual generation of solutions. Similarly, Renshaw and Asher (1983) report that most children realize prosocial goals are valuable on a recognition task; however, children are able to generate a wide variety of different goals on a production task. Thus, the use of a recognition task in this study may have resulted in an over-reporting of prosocial strategies and relational goals, and an under-reporting of aggressive strategies and self-interest and revenge goals among children's responses.

Summary

Results obtained from children's peer-nominations should be interpreted with caution, due to the above-mentioned difficulties experienced with this measure in the present study. In addition, it is possible that children's responses to the Conflict Resolution measure were influenced by their desire to be perceived in a socially desirable manner. However, similar to the findings of Chung and Asher (1995), the results of this study indicate that children's goals and strategies are significantly related. Thus, future research should focus on the effect children's goals may have on their behavior, particularly in terms of intervention for aggressive children.

Future Research Directions

The results of this study suggest that children's goals are significantly related to their strategies in conflict situations. However, there is a great deal which still remains unknown in terms of the role of children's goals, as well as other social information processing mechanisms in the development of aggressive behavior.

Situational Factors

Some researchers suggest that children's goals may differ depending on the type of situation (e.g., conflict, peer group entry, friendship; Crick & Dodge, 1994; Erdley & Asher, 1996; Gresham, 1983). Thus, one aim of future research might be to examine the goals of relationally aggressive children in different situations. For example, one of the defining features of relational aggression is that an attempt is made to damage other children's friendships or feelings of inclusion in the peer group (Crick & Grotpeter, 1995). However, one would assume that relationally aggressive children need to make friends or at least be popular enough (or feared enough) that other children want to be friends with them before they can attempt to use a relationally aggressive strategy. For example, telling other children that they won't be friends with them unless they do what they say would not likely be very effective if the victim has no desire whatsoever to be friends with the aggressor. Therefore, it would be interesting to examine whether the goals of relationally aggressive children differ in friendship versus conflict situations.

Characteristics of the Focus Peer

Another factor which might influence children's goals as well as the strategies they select in any given situation is the characteristics of the peer with whom they are in conflict. For instance, it is possible that children may select different strategies depending on the gender of the peer in question. Many researchers suggest that girls' friendship groups tend to be smaller and closer than boys' groups (Bjorkqvist et al., 1992; Lagerspetz et al., 1988; Block, 1983; Daniels-Beirness, 1989; Erwin, 1993; Maccoby, 1986). Due to the "looser" friendship structure among boys groups, relationally aggressive strategies may be less effective among boys' peer groups than girls'. Therefore, children may select physically aggressive strategies more often than relationally aggressive strategies when in conflict with male peers.

Some other characteristics which might influence children's behaviors are the sociometric status of the peer, and particularly in the case of relational aggression, the friendships status of the peer in relation to the aggressor. For example, although aggressive children might be more interested in self-interest than relational goals when they are in conflict with a peer that they don't like or who is unpopular, it is possible that relational goals may become more important when the peer is a popular classmate or a friend. In addition, the fact that relationally aggressive behaviors involve an attempt to damage the friendship relations of others raises the question of whether these strategies would be effective in a conflict situation with a non-friend. If not, then what alternative

solution do relationally aggressive children select in such a situations? In any case, the manner in which the characteristics of the focus peer influence the behaviors and goals of aggressive children is a question worthy of further investigation.

Differences among Various Types of Aggression

Another issue which needs to be addressed is whether different "types" of relationally aggressive children can be identified, and also whether these different types may vary in terms of their goals. For example, some researchers suggest that aggressive children may be either reactive or proactive (Crick & Dodge, 1996; Dodge & Coie, 1987). In addition, Crick and Dodge report that although proactive aggressive children selected instrumental goals over relational goals more often than their nonproactive aggressive peers, no such differences were discovered for reactive aggressive children.

In the present study, we attempted to assess the goals of relationally aggressive children. The Behavioral Nomination Measure (Crick & Grotpeter, 1995) which was used in this study did not distinguish between reactive/proactive or direct/indirect dimensions of relationally aggressive behavior. It is likely, however, that relationally aggressive behaviors may differ along both these dimensions. In fact McNeilly-Choque et al. (in press) report that a factor analysis of teacher ratings of relationally aggressive items distinguished among two types of relational aggression: verbal and nonverbal. They also state, however, that the verbal relationally aggressive factor could be reinterpreted as proactive relational aggression due to the fact that many of the items reflect manipulative

behavior. On the other hand, the nonverbal relationally aggressive factor could be reframed as reactive relational aggression since many of the items reflect reactions to anger. Thus, an aim of future research will be to develop a measure which distinguishes among different dimensions of aggressive behavior (e.g., relational/physical, reactive/proactive, direct/indirect). Following the development of such a measure, researchers will then need to examine the goals of these groups in order to determine whether they differ according to the type of aggression assessed.

Longitudinal Studies: Direction of Effect

The results of this study suggest that children's goals are significantly related to their strategies. A number of researchers suggest that children's social-cognitive processes contribute to certain strategies or behaviors, which in turn influence children's level of peer acceptance (Erdley & Asher, 1996; Erdley et al., 1996). Such a relationship has been alluded to in this study, in that children's goals were assumed to influence the strategies they employ in conflict situations with their peers. Although this interpretation makes intuitive sense, it is also possible that children's strategies may influence their goals in some manner. In fact this relation may be indirect, in that the strategies that children employ may determine whether or not children are accepted by their peers. Children's level of peer acceptance may then influence the goals they deem important. For example, if children are rejected by their peers, they may decide that relational goals

are unimportant (i.e., the other kids don't like me anyway, so what's the use of trying to be nice: I might as well just get what I want out of the situation).

In fact, it is likely that this relation is circular. For instance, children's goals may influence their strategies or behaviors, which then determines their level of peer acceptance. The degree to which they are accepted by their peers then likely influences their goals and strategies in future interactions. However, this is all just speculation, and what is really needed is longitudinal research in order to determine the manner in which these variables influence one another.

Other Social Information Processing Mechanisms

Crick and Dodge (1994) suggest that there are a number of levels of social information processing which may influence children's behavior (i.e., encoding of cues, interpretation of cues, clarification of goals, response access or construction, response decision). Results of research suggests that aggressive children may differ from prosocial or nonaggressive children at all these levels (see Crick & Dodge for a review). Thus far, research has been conducted regarding the information processing patterns of relationally aggressive children at only two levels: interpretation of cues (i.e., intent attributions; Crick, 1995) and goal coordination (the present study). However, no research has yet been conducted regarding relationally aggressive children's social information processing mechanisms at the levels of encoding of cues, response access or construction, and response decision. Thus, research regarding other social information processing

mechanisms which may be related to relationally aggressive behaviors needs to be conducted.

Long-term Consequences of Relationally Aggressive Behavior

A final issue which needs to be addressed is that of the long-term effects of engaging in frequent relationally aggressive behaviors. Results of research suggest that aggressive children may be at risk for social psychological adjustment difficulties. For example, both overtly and relationally aggressive children may experience peer rejection, and relationally aggressive children report more loneliness, as well as poorer acceptance and greater isolation from their peers (Crick, Casas et al., in press; Crick & Grotpeter, 1995; McNeilly-Choque et al., in press). In addition, it appears that aggressive children may be at risk for long-term problems. For example, Parker and Asher (1987), in a review of the literature report that childhood aggression is predictive of later outcomes such as dropping out of school and criminality.

No specific definition of the type of aggression examined in the studies reviewed by Parker and Asher (1987) was given. However, it is likely that most of the studies assessed physical or verbal aggression, since the review was conducted in 1987, and little research had been conducted regarding relational aggression until the past few years. So far, only one study has been conducted regarding the long-term effects of engaging in frequent relationally aggressive behavior on children's adjustment. Crick (1996) reported that relational aggression, which was assessed near the beginning of the school year, was

predictive of peer rejection, as assessed six months later. This study provides the first information regarding long-term effects for the social adjustment of relationally aggressive children. However, six months is not a very long time, and future research should be conducted in order to determine whether these children experience any adjustment difficulties in adulthood.

Summary

This study provides the first information regarding the goals of relationally aggressive children. However, there are a number of additional factors which may influence both children's strategies and their goals in conflict situations with their peers (e.g., gender of the aggression, gender, sociometric status, and friendships status of the peer with whom they are in conflict). Moreover, it is possible that children's goals may differ depending on the type of aggression (e.g., physical/relational, reactive/proactive, direct/indirect) or the situation (e.g., peer group entry, friendship, peer conflict) assessed.

In fact, perhaps future research should address the issue of whether it is the coordination of conflicting goals, not the absolute choice of one goal over another which may be important to the development of prosocial behavior. For example, Rabiner and Gordon (1992) suggest that "some rejected children may fail to coordinate individual and relational goals, not only because relational goals are less important to them, but because they have difficulty balancing these goals even when they are aware of them" (p.1349). Thus, studies such as this one are important in that they provide a starting point (i.e.,

which goals are related to the strategies that children select). In the future, however, it may be more important to determine how children coordinate goals which might be perceived as conflicting (e.g., relationship and equality vs. self-interest), and how the presence or absence of an ability to coordinate these goals might influence the strategies children choose in conflict situations with their peers.

Research also needs to be conducted regarding other social information processing mechanisms which may be related to the use of relationally aggressive strategies. For example, researchers should make an attempt to determine how relationally aggressive children encode social cues, access or construct responses, and make decisions regarding an eventual response. Then, once we have determined how relationally aggressive children process social cues, it will be important to begin to develop intervention programs for these children.

Applications

The social adjustment problems, both short- and long-term, which may be experienced by aggressive children, underscore the need for intervention with these children. Many intervention programs for aggressive children have focused on changing children's behavior. However, some researchers have suggested that more focus should be placed on children's motivations for engaging in aggressive behavior. For example, a number of researchers have emphasized the importance of children's goals in the study of children's social competence (Asher & Renshaw, 1981; Dodge, Asher, & Parkhurst,

1989; Taylor & Asher, 1984). Although intervention programs may be successful in teaching children the appropriate behavioral response in any given situation, children will not necessarily access these responses unless they have the motivation to do so. For example, it may be that an aggressive strategy will obtain the desired objective, just as easily or even more so than a prosocial strategy. Since the aggressive strategy gets children what they want, children may simply employ the aggressive rather than the prosocial strategy, even though they possess the necessary knowledge to perform the prosocial ones.

Research regarding children's goals suggests that prosocial children are more interested in relational goals, whereas physically aggressive children are more interested in pursuing goals of hostility, revenge, control, and instrumentality (Chung & Asher, 1995; 1996; Crick & Dodge, 1996; Erdley & Asher, 1996; Lochman et al., 1993; Slaby & Guerra, 1988). Overall, the results of this study support and replicate these findings. In particular, it appears that a high endorsement of prosocial strategies and low ratings of aggressive strategies, both physical and relational, is related to a high endorsement of goals involving the maintenance of equality and relationships with the focus peer and low ratings of revenge goals. Thus, it may be that intervention programs for aggressive children should focus, in particular, on teaching children to value equality and relationships with their peers.

Relational goals have not always been clearly defined in past research. However, most of the studies which have examined children's relational goals appear to be assessing the goal of maintaining relationships with the focus peer (Chung & Asher, 1995; 1996; Crick & Dodge, 1996; Erdley & Asher, 1996; Lochman et al., 1993; Rabiner & Gordon, 1992). In contrast, two different types of relationship goals were examined in this study: maintenance of relationships with the focus peer and maintenance of relationships among the rest of the peer group. The issue which needs to be addressed is whether both of these relational goals are relevant to the decision to employ prosocial rather than aggressive strategies.

The results of this study suggest that it may be children's desire to maintain the relationship with the focus peer which is more strongly related to the use of prosocial rather than aggressive strategies. For example, the goal of maintaining relationships with the focus peer was positively correlated with prosocial strategies, and negatively correlated with both physical and relational strategies. On the other hand, maintaining relationships among the peer group as a whole was found to be positively correlated with both prosocial and relationally aggressive strategies, and not significantly related to physically aggressive strategies. Moreover, results of canonical correlations suggest that it was the goal of maintaining relationships with the focus peer, in combination with equality and revenge goals, which was associated with high ratings of prosocial strategies and low ratings of aggressive strategies. Thus, it appears that intervention programs for

aggressive children, both physical and relational, should focus on teaching children to maintain relationships with their peers, particularly those children who they may not like or with whom they may be in conflict.

Relationally aggressive strategies, however, were found to be similar to prosocial strategies in two ways: both relationally aggressive and prosocial strategies were positively related to the pursuit of goals involving the maintenance of relationships among the peer group as a whole and avoiding trouble with adults. Although, the results of this study suggest that the goal of maintaining relationships with the focus peer may be more relevant in determining whether children will employ prosocial versus aggressive strategies, the fact that relationally aggressive strategies were positively correlated with the goal of maintaining relationships among the peer group may also be relevant to the development of intervention programs for relationally aggressive children.

For example, the fact that relationally aggressive children appear to value relationships among the peer group might be used as an incentive to encourage relationally aggressive children to employ prosocial rather than relationally aggressive strategies. Research suggests that relationally aggressive children may be more rejected and also more controversial (i.e., some kids like them, but other kids don't) than their nonrelationally aggressive peers (Crick & Grotpeter, 1995). In addition, Delveaux, Daniels, and Clyde (1996) report that children expected more relational consequences (i.e., other kids wouldn't like them) for relationally aggressive children than physically or

verbally aggressive children. Thus, one component of an intervention program for relationally aggressive children might be to attempt to convince them that the strategies they choose may actually damage their relationships among the peer group.

Subsequently, these children could be taught that prosocial strategies will likely increase their status among the peer group. Therefore, if maintaining relationships among the peer group are really important to relationally aggressive children, then this might be the first step towards teaching them to employ prosocial rather than relational strategies.

Although most research regarding aggressive children has focused at the level of the group, should we wish to implement successful interventions for aggressive children, it may be more beneficial to focus on the individual. Although, on average, most aggressive children may be less interested in relational goals than their nonaggressive or prosocial peers, this does not necessarily mean that these goals are unimportant to all aggressive children. For example Crick and Dodge (1996) report that proactive-aggressive children selected instrumental rather than relational goals more often than their nonproactive-aggressive peers. However, no such difference was discovered for reactive-aggressive children. Also, this study suggests that physically and relationally aggressive strategies are both negatively related to the goal of maintaining relationships with the focus peer. In contrast, however, relationally aggressive strategies were found to be positively related to the goal of maintaining relationships among the peer group as a whole. Thus, rather than simply assuming that all aggressive children require intervention

at the level of goal selection, we should first determine the goals of each individual child, and determine whether such intervention is in fact necessary.

Summary

The results of this study suggest that it may be the goal of maintaining relationships with the focus peer which is more relevant to the decision to employ prosocial rather than aggressive strategies in conflict situations. Thus, it seems that future intervention programs should focus on teaching children to value relationships, particularly relationships with other peers who they may not like, or with whom they may be in conflict. The discovery, however, that relationally aggressive children also value the maintenance of relationships among the peer group as a whole may also be relevant to the development of intervention programs for children who engage in frequent relationally aggressive behaviors. Specifically, the fact that the use of prosocial strategies might improve their relationships with other children might be used as an incentive to employ prosocial rather than relationally aggressive strategies. In addition, although research regarding the information processing patterns of children often focuses at the level of the group, in intervention, it may be more beneficial to focus on the individual.

One question which comes to mind when we discuss intervention at the level of goal selection, is whether it is realistic to presume that we can actually change children's goals in social interaction with their peers. Although it may not be as difficult to teach children new behaviors, it may be a little more difficult to teach children to think more

about maintaining relationships with their peers than about getting what they want out of the situation, especially when relationships do not appear important to them. For this reason, it may be important to begin intervention when children are young. Thus, through a combination of modeling and reinforcement, it may be possible to teach children the benefits of engaging in prosocial behavior and maintaining relationships with their classmates.

General Conclusions

The results of this study suggest that children's goals are significantly related to their strategies in conflict situations with their peers. In addition, this study provides the first information regarding the goals of children who report frequent use of relationally aggressive strategies. Specifically, relationally aggressive strategies were found to be positively correlated with self-interest, personal control, revenge, avoiding trouble, maintaining relationship among the peer group, and negatively correlated with goals involving the maintenance of equality and relationships with the focus peer.

Children's peer-nominated behavioral styles were not found to be highly related to their strategies, nor were they related to their goals. However, due to difficulties with the peer nomination measure (e.g., low percentage of participation within classrooms) the reliability of children's peer nominations is questionable. Thus, the lack of significant findings may be due to the low reliability of the peer nomination measure, rather than an actual lack of relation between these variables. However, more research is needed in

order to determine whether children who are identified by their peers as being relationally aggressive differ from their physically aggressive or prosocial peers in terms of goal selection.

Results of past research regarding aggressive behavior suggested that boys were more aggressive than girls (see Maccoby & Jacklin, 1974 for a review). In fact, girls were often neglected in terms of both research and intervention for aggressive behavior. Crick and Grotpeter (1995), however, suggest that girls may be more aggressive than was previously thought. These researchers suggest that girls may be just as aggressive as boys, only they engage in a different type of aggression (i.e., relational rather than physical). In fact, Crick and Grotpeter report that if both physical and relational forms of aggression are considered, then an equal number of boys and girls may be identified as aggressive.

In general, their results of this study provide support for the findings of Crick and Grotpeter (1995) in that girls were more frequently nominated for relationally aggressive items than were boys. In addition, results of a descriptive analysis suggests that, if both physically and relationally aggressive behaviors are assessed, then both boys and girls may be classified as aggressive (i.e., 18% of boys and 15.5% of girls). No gender differences were discovered in this study in terms of children's self-ratings of relationally aggressive behaviors. However, it is possible that girls may be less likely than boys to report aggressive behavior, due to greater expectations for girls to display ladylike

behavior (Block, 1983). Nevertheless, overall this study provides support for and adds to the growing body of research which suggests that girls may also be aggressive, perhaps just in different ways than boys (Bjorkvist et al., 1992; Crick & Grotpeter, 1995; Feshbach, 1969; Feshbach & Sones, 1971; Lagerspetz et al., 1988).

Evidence based on factor analytic techniques (Crick, 1996; Crick, Casas et al., in press; Crick & Grotpeter, 1995; McNeilly-Choque et al., in press), as well as direct questioning of children regarding their beliefs about aggressive behavior (Crick, Bigbee et al., in press; Delveaux et al., 1996) suggests that relationally aggressive behaviors can be reliably distinguished from other types (e.g., physical and verbal). This study provides additional evidence for the distinctiveness of relationally aggressive behaviors, based on children's goals. Although the use of physically and relationally aggressive strategies were related to many of the same goals (i.e., both positively related to self-interest, personal control, revenge, and negatively correlated with maintaining equality, and relationships with the focus peer), some differences were also discovered. Specifically, relationally aggressive strategies were found to be positively correlated with the goals of avoiding trouble and maintaining relationships among the peer group, whereas physically aggressive strategies were not related to these goals.

Due to the fact that physically and relationally aggressive behaviors are both considered "aggressive" responses, it is not surprising that children who engage in these types of behaviors are interested in many of the same goals. However, the fact that some

differences were discovered between the goals of children who reported frequent use of physically and relationally aggressive strategies suggests that these two aggressive behaviors are not synonymous with one another. Thus future research should focus, first of all, on learning more about the characteristics of children who engage in relationally aggressive behaviors. Second, intervention programs need to be developed for children who engage in relationally aggressive behaviors. Finally, researchers should be aware of the fact that relationally aggressive behaviors are distinct from other forms of aggression (i.e., physical and verbal) which have been studied in the past. One can not simply assume that interventions previously employed with physically aggressive children will also be appropriate for relationally aggressive children. Therefore, intervention programs for children who engage in frequent relationally aggressive behaviors should be tailored specifically to their special needs and characteristics.

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APPENDICES

Appendix A: Peer Nomination Measure (adapted from Crick & Grotpeter, 1995)

RELATIONAL AGGRESSION ITEMS

- 2. Start Being Friends
- 5. Keep Out
- 7. Stop Liking
- 9. Ignore Others
- 12. Keep People

PHYSICAL AGGRESSION ITEMS

- 3. Hit Others
- 6. Push Others
- 11. Beat Up
- 13. Start Fights

PROSOCIAL ITEMS

- 1. Good Leader
- 4. Do Nice Things
- 8. Help Others
- 10. Cheer Up Others

Administration Instructions

Today, I would like to talk with you about the kinds of games you like to play and the children with whom you like to play. I want you to tell me how you really feel. OK? I promise that I won't tell the other kids in your class or your teacher what you tell me. That way you can be honest about how you feel.

I'm going to ask you about some of the kids in your class, and the things that they like to do. I'm going to ask you a bunch of questions. For each question I'm going to ask you to tell me which of the kids in your class do those sorts of things. For each question, you can list up to three kids. Do not name yourself for any of the questions. However, you can list other kid's names as many times as you want to for different questions -- but name a kid only one time per question. Also, if there are some kids in your class who have the same first names, then write the first initial of the kid's last name, too.

Does anyone have any questions?

First, please write your first and last name and the name of your teacher at the top of the page. Also, please write the day, month, and year that you were born.

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 questions (i.e., they cannot put the same name down more than once for a particular question).
2. No, they cannot use their own name for any of the questions.
3. Children will be asked to nominate "up to" 3 kids for each item. 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 question, tell them to put down the three who are most applicable first (e.g., the 3 kids who "do it most"). Then they can put additional numbers in the margin to the right of the blanks (again, deal with this with individual children).

BEHAVIORAL ITEMS

1. Good Leader

Now I would like you to think of up to three children who you think would make good leaders if you were playing a game. These are kids that you would like to have in charge during a game or an activity. Put their names in the three blanks next to the words "Good Leader".

2. Start Being Friends

List up to three kids who, when they are mad at a person, they start being friends with someone else to get back at the person. Put their names in the blanks next to the words "Start Being Friends".

3. Hit Others

List up to three kids who hit, kick, or punch other kids at school. Put their names in the three blanks next to the words "hit others".

4. Do Nice Things

List three kids who say or do nice things for other kids.

5. Keep Out

List three kids who, when they are mad at a person, they get even by keeping the person from being in their group of friends.

6. Push Others

List three kids who push and shove others around. Put their names in the blanks next to the word "Push Others".

7. Stop Liking

List three kids who tell their friends that they will stop liking them unless the friends do what they say.

8. Help Others

List three kids who help out others when they need it.

9. Ignore Others

List three kids who, when they are mad at a person, they ignore the person or stop talking to them. Put their names in the blanks next to the words "Ignore Others".

10. Cheer Up Others

List three kids who try to cheer up other kids who feel upset or sad about something. They try to make the kids feel happy again.

11. Beat Up

List three kids who beat up other kids at school. Put their names in the blanks next to the words "Beat Up Others".

12. Keep People

List three kids who try to keep people from being in their group when it's time to play or do an activity.

13. Start Fights

List three kids who start fights at school. (Don't elaborate further on this one).

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

These things that we talked about today are your own personal thoughts and feelings, so I want you to know that you don't have to tell anyone about any of these things if you don't want to. We are interested in knowing your own opinions and your own thoughts about other kids' behaviors. We want to know what you think, not what your friends think, so we would like to ask you not to talk about your answers with any of the other kids in your class. And I want you to know that even if the other kids ask you what your answers were for some of the questions, you don't have to tell them anything that you don't want to. But, if you would like to talk about these questions and answers with your parents, that's just fine. O.K.?

Appendix B: Conflict Resolution Measure (adapted from Chung & Asher, 1996)

Strategies:

- Extreme Physical Aggression
- Mild Physical Aggression
- Extreme Relational Aggression
- Mild Relational Aggression
- Polite Request
- Compromise

Goals:

- Pursuing Self-Interest
- Having Personal Control
- Seeking Revenge
- Avoiding Trouble with Adults
- Pursuing Equity
- Maintaining Good Relationship with Focus Peer
- Maintaining Relationships/Status within Peer Group

Administration Instructions

This second set of questions is a little bit different. I'm going to tell you about some situations that might possibly happen to you and your classmates. If you are a boy, I want you to imagine that these classmates are also boys, and if you are a girl, I want you to imagine that these classmates are girls. Although these situations are not real, I would like you to think about each one very carefully, and imagine that these things have really happened to you. Then I am going to ask you what you would do in each of these situations and what your goals would be. I am going to read all the questions out loud, so please try to follow along, and please do not work ahead. Does anyone have any questions?

O.K. Let's do a practice question first.

Practice Question

You have a cold and your parent told you not to play outside. During the lunch hour, several classmates come over and ask if you would like to play dodge ball with them because they need one more person.

Imagine that this has really happened.

1a. What would you do?

	Definitely Not	Probably Not	Neutral	Probably Would	Definitely Would
_____ Tell them I have a cold and I can't play outside. -----	1	2	3	4	5
_____ Tell them to leave me alone. -----	1	2	3	4	5
_____ Say "No" and walk away. -----	1	2	3	4	5
_____ Say "Yes" and go outside to play with them. -----	1	2	3	4	5
_____ Ask the teacher if I can play outside. -----	1	2	3	4	5

1b. Put a check mark () next to the thing you would do first.

2a.	What would be your goal?	Really				Really			
		Disagree	Disagree	Neutral	Agree	Disagree	Agree	Agree	Agree
_____	Trying <u>not</u> to make my cold worse. -----	1	2	3	4	5			
_____	Trying to get along with my classmates. -----	1	2	3	4	5			
_____	Trying to get to play dodge ball. -----	1	2	3	4	5			
_____	Trying to make them stop bothering me. -----	1	2	3	4	5			

2b. Put a check mark () next to your top goal.

Watching TV

You and two classmates are watching TV at your house one afternoon. The three of you are watching a show you really like a lot. In the middle of the show, one classmate says he doesn't like it anymore and he wants to watch something different. You tell this classmate that you and the other classmate like the show a lot and the two of you want to watch it. This classmate says he is getting bored and then changes the TV to a different channel.

Imagine that this has really happened.

1a. What would you do?

	Definitely Not	Probably Not	Neutral	Probably Would	Definitely Would
_____ Ask him nicely to turn the channel back. -----	1	2	3	4	5
_____ Punch him or slap his hands off the TV. -----	1	2	3	4	5
_____ Tell him that if he doesn't turn the channel back, I'm going to tell all the kids at school not to invite him to their place. -	1	2	3	4	5
_____ Push him away from the TV. -----	1	2	3	4	5
_____ Tell him that if he doesn't turn the channel back, we are not going to talk to him for the rest of the day. -----	1	2	3	4	5
_____ Tell him we'll finish the show and then watch a show he wants. -----	1	2	3	4	5

1b. Put a check mark () next to the thing you would do first.

2a.	What would be your goal?	Really			
		Disagree	Disagree	Neutral	Really Agree
_____	Trying to watch the TV show I want. -----	1	2	3	4 5
_____	Trying <u>not</u> to let him boss me around. -----	1	2	3	4 5
_____	Trying to get along with <u>this</u> classmate. -----	1	2	3	4 5
_____	Trying to make sure that we all get to watch what we want. -----	1	2	3	4 5
_____	Trying to make sure that the <u>other</u> classmate likes me. -----	1	2	3	4 5
_____	Trying <u>not</u> to get in trouble with my mom or dad. -----	1	2	3	4 5
_____	Trying to get back at him for what he just did. -----	1	2	3	4 5
2b.	Put a check mark () next to your top goal.				

Working on a Puzzle

You are putting together a puzzle during the lunch break. You've worked very hard on the puzzle, and it is almost finished. A classmate comes over, picks up some puzzle pieces, and wants to put them in the puzzle that you are doing. You tell this classmate that you really want to finish the puzzle by yourself, and you ask him to give back the puzzle pieces. But this classmate doesn't want to give you the puzzle pieces.

Imagine that this has really happened.

1a. What would you do?

	Definitely Not	Probably Not	Neutral	Probably Would	Definitely Would
_____ Tell him to give back the puzzle pieces, or I'll ignore him for the rest of the day. -----	1	2	3	4	5
_____ Slap him or knock the puzzle pieces out of his hand. -----	1	2	3	4	5
_____ Ask him nicely to give back the puzzle pieces. -----	1	2	3	4	5
_____ Push him away. -----	1	2	3	4	5
_____ Tell him I'll do the puzzle with him again after I finish this puzzle. -----	1	2	3	4	5
_____ Tell him to give back the puzzle pieces or I'll tell all the other kids not to play with him at recess. -----	1	2	3	4	5

1b. Put a check mark () next to the thing you would do first.

2a.	What would be your goal?	Really			
		Disagree	Disagree	Neutral	Really Agree
_____	Trying to get along with this classmate. -----	1	2	3	4 5
_____	Trying to make sure that the other kids in my class will like me. -----	1	2	3	4 5
_____	Trying to get back at him for what he just did. -----	1	2	3	4 5
_____	Trying to make sure that we both get to play with the puzzle. -----	1	2	3	4 5
_____	Trying to get the puzzle pieces back and finish the puzzle. -	1	2	3	4 5
_____	Trying not to let him boss me around. -----	1	2	3	4 5
_____	Trying not to get in trouble with the teacher. -----	1	2	3	4 5
2b.	Put a check mark () next to your top goal.				

Playing on the Swing

You go out for recess and decide that you want to play on the swings. There is only one swing left. As you are about to get on the swing, a classmate comes over and says he wants to play on that swing too. You tell him that he can get on after you are done, but he tries to take the swing away from you.

Imagine that this has really happened.

1a. What would you do?

	Definitely		Probably		Neutral		Probably		Definitely	
	Not	Not	Not	Not	Not	Not	Not	Not	Not	Not
_____ Tell him to let me have the swing, or I'm not going to talk to him anymore. -----	1		2		3		4		5	
_____ Push him away from the swing. -----	1		2		3		4		5	
_____ Tell him that we take turns. -----	1		2		3		4		5	
_____ Tell him to let me have the swing, or I'll tell all the other kids not to play with him anymore. -----	1		2		3		4		5	
_____ Ask him nicely to let me get on the swing first. -----	1		2		3		4		5	
_____ Pull him off the swing and beat him up. -----	1		2		3		4		5	

1b. Put a check mark () next to the thing you would do first.

2. What would be your goal?

	Really Disagree	Disagree	Neutral	Agree	Really Agree
Trying to make sure that we both get to play on the swing. -----	1	2	3	4	5
Trying to make sure that my other classmates on the playground will like me. -----	1	2	3	4	5
Trying not to get in trouble with the teacher. -----	1	2	3	4	5
Trying to get back at him for what he just did. -----	1	2	3	4	5
Trying to get along with this classmate. -----	1	2	3	4	5
Trying to play on the swing. -----	1	2	3	4	5
Trying not to let him push me around. -----	1	2	3	4	5

2b. Put a check mark () next to your top goal.

In the Art Class

Your class goes outside for an art class one afternoon. The teacher wants everyone to choose a place around school and draw a picture of the school. You find a place that has a good view of the school and you want to draw your picture there. As you put your crayons and art pad on the ground, a classmate comes over and says to you, “Hey, you can’t sit here. I want this place.” You say, “Yes, I can. I got here before you.” But this classmate ignores you and puts his crayons and art pad where you are going to sit.

Imagine that this has really happened.

1a. What would you do?

	Definitely Not	Probably Not	Neutral	Probably Would	Definitely Would
Ask him nicely to move his art pad and crayons. -----	1	2	3	4	5
Throw away his art pad and break his crayons. -----	1	2	3	4	5
Tell him to move his art pad and crayons, or I’m not going to talk to him anymore. -----	1	2	3	4	5
Push him away. -----	1	2	3	4	5
Tell him to move his art pad and crayons, or I’ll tell all the other kids not to play with him at recess. -----	1	2	3	4	5
Tell him that we both draw the picture in the same place. -----	1	2	3	4	5

1b.. Put a check mark () next to the thing you would do first.

2a.	What would be your goal?	Really			
		Disagree	Disagree	Neutral	Really Agree
_____	Trying not to get in trouble with the teacher. -----	1	2	3	4 5
_____	Trying to get back at him for what he just did. -----	1	2	3	4 5
_____	Trying to make sure that the other kids in my class will like me. -----	1	2	3	4 5
_____	Trying not to let him boss me around. -----	1	2	3	4 5
_____	Trying to get that place and draw the picture from there. --	1	2	3	4 5
_____	Trying to make sure that we both get to draw the picture from there. -----	1	2	3	4 5
_____	Trying to get along with this classmate. -----	1	2	3	4 5
2b.	Put a check mark () next to your top goal.				

Shooting Basketball

You are shooting basketball by yourself on the playground during recess. A classmate comes over and says "I want the ball." You tell him you just got the ball from someone else and you want to play with it for a couple of minutes. But this classmate says he wants the ball now and tries to take the ball away from you.

Imagine that this has really happened.

1a. What would you do?

	Definitely Not	Probably Not	Neutral	Probably Would	Definitely Would
_____ Push him away. -----	1	2	3	4	5
_____ Tell him we take turns or play a basketball game together. -	1	2	3	4	5
_____ Tell him to give me the ball, or I'm not going to talk to him for the rest of the day. -----	1	2	3	4	5
_____ Punch him. -----	1	2	3	4	5
_____ Tell him to give me the ball, or I'll tell all the other kids not to play with him anymore. -----	1	2	3	4	5
_____ Ask him nicely to let me shoot the ball for a while. -----	1	2	3	4	5

1b. Put a check mark () next to the thing you would do first.

2a.	What would be your goal?	Really			
		Disagree	Disagree	Neutral	Really Agree
_____	Trying not to let him push me around. -----	1	2	3	4 5
_____	Trying not to get in trouble with the teacher. -----	1	2	3	4 5
_____	Trying to keep shooting the basketball. -----	1	2	3	4 5
_____	Trying to get back at him for what he just did. -----	1	2	3	4 5
_____	Trying to get along with this classmate. -----	1	2	3	4 5
_____	Trying to make sure that my other classmates on the playground will like me. -----	1	2	3	4 5
_____	Trying to make sure that we both get a chance to play with the basketball. -----	1	2	3	4 5
2b.	Put a check mark () next to your top goal.				

Reading Time

It is now reading time. Your teacher tells the class that everyone chooses something from the bookshelf to read. You find an interesting story in a book that you haven't read before. A classmate comes over and asks you to give him the book because he wants to read that book too. You tell him that you really want to read the book now, but as you are going back to your desk, this classmate blocks your way and puts his hands on the book.

Imagine that this has really happened.

1a. What would you do?

	Definitely Not	Probably Not	Neutral	Probably Would	Definitely Would
_____ Tell him to give me the book, or I'll tell all the other kids not to play with him at recess. -----	1	2	3	4	5
_____ Ask him nicely to let me read the book first. -----	1	2	3	4	5
_____ Tell him to give me the book, or I'm not going to be friends with him anymore. -----	1	2	3	4	5
_____ Push him out of the way. -----	1	2	3	4	5
_____ Tell him I'll give him the book as soon as I finish the story I want to read. -----	1	2	3	4	5
_____ Knock his hands off the book. -----	1	2	3	4	5

1b. Put a check mark () next to the thing you would do first.

2a.	What would be your goal?	Really			
		Disagree	Disagree	Neutral	Really Agree
_____	Trying to make sure that the other kids in my class will like me. -----	1	2	3	4 5
_____	Trying not to get in trouble with the teacher. -----	1	2	3	4 5
_____	Trying to get the book and read the story right away. -----	1	2	3	4 5
_____	Trying to make sure that we both get a chance to read the book. -----	1	2	3	4 5
_____	Trying to get along with this classmate. -----	1	2	3	4 5
_____	Trying not to let him boss me around. -----	1	2	3	4 5
_____	Trying to get back at him for what he just did. -----	1	2	3	4 5
2b.	Put a check mark () next to your top goal.				

Computer Games

Your class has a new computer which has some fun computer games. The teacher tells the class that everyone should take turns trying these games during recess. You have waited for a while and now it's your turn. A classmate comes over and starts to play the computer games. You tell him that it's your turn and he is supposed to play after you, but this classmate says that he doesn't want to wait any longer and he wants to play the games now.

Imagine that this has really happened.

1a. What would you do?

	Definitely Not	Probably Not	Neutral	Probably Would	Definitely Would
Push him away. -----	1	2	3	4	5
Tell him I'll play only a few games and I'll let him play very soon. -----	1	2	3	4	5
Tell him to let me play the games, or I'm not going to talk to him anymore. -----	1	2	3	4	5
Punch him. -----	1	2	3	4	5
Tell him to let me play the games, or I'll tell all the other kids not to play with him at recess. -----	1	2	3	4	5
Ask him nicely to wait and let me play the games. -----	1	2	3	4	5

1b. Put a check mark () next to the thing you would do first.

2a.	What would be your goal?	Really				Really			
		Disagree	Disagree	Neutral	Agree	Disagree	Disagree	Neutral	Agree
_____	Trying to play the computer games when it is my turn. -----	1	2	3	4	5			
_____	Trying not to get in trouble with the teacher. -----	1	2	3	4	5			
_____	Trying not to let him boss me around. -----	1	2	3	4	5			
_____	Trying to get back at him for what he just did. -----	1	2	3	4	5			
_____	Trying to make sure that we both get to play the computer games. -----	1	2	3	4	5			
_____	Trying to get along with this classmate. -----	1	2	3	4	5			
_____	Trying to make sure that the other kids in the class will like me.. -----	1	2	3	4	5			

2b. Put a check mark () next to your top goal.

The Lunch Time

You and several classmates want to eat lunch together. You put your lunch on a table where these classmates are sitting. You then walk away to get a drink. As you come back, a classmate is putting down his lunch where you wanted to sit, and your lunch has been moved aside. You tell this classmate that he is in your seat, but he doesn't want to leave.

Imagine that this has really happened.

1a. What would you do?

	Definitely Not	Probably Not	Neutral	Probably Would	Definitely Would
_____ Pull him off the chair or beat him up. -----	1	2	3	4	5
_____ Tell him that if he doesn't leave, I'm going to tell all the other kids in the class not to sit with him at lunch time anymore. -----	1	2	3	4	5
_____ Tell him that he moves over a little bit so we both can sit there. -----	1	2	3	4	5
_____ Push him away. -----	1	2	3	4	5
_____ Ask him nicely to find another seat. -----	1	2	3	4	5
_____ Tell him that if he doesn't get out of my seat, I'm never going to speak to him again. -----	1	2	3	4	5

1b. Put a check mark () next to the thing you would do first.

2a.	What would be your goal?	Really				Really			
		Disagree	Disagree	Neutral	Agree	Disagree	Disagree	Neutral	Agree
_____	Trying to get back at him for what he just did. -----	1	2	3	4	5			
_____	Trying not to let him boss me around. -----	1	2	3	4	5			
_____	Trying to make sure that the other kids at the table will like me. -----	1	2	3	4	5			
_____	Trying to get my seat back and eat my lunch there. -----	1	2	3	4	5			
_____	Trying not to get in trouble with the teacher. -----	1	2	3	4	5			
_____	Trying to get along with this classmate. -----	1	2	3	4	5			
_____	Trying to make sure that we both get to sit where we want. --	1	2	3	4	5			
2b.	Put a check mark () next to your top goal.								

In Front of a Water Fountain

After gym class, you and several classmates run to a water fountain to get a drink. You get to the water fountain first, but a classmate tries to get a drink before you. You tell him that he should wait and drink after you, but this classmate says, "Why should I?"

Imagine that this has really happened.

1a. What would you do?

	Definitely Not	Probably Not	Neutral	Probably Would	Definitely Would
_____ Push him away from the water fountain. -----	1	2	3	4	5
_____ Tell him that if he doesn't let me drink first, I'm going to tell all the other kids to pick him last for teams in our next gym class. -----	1	2	3	4	5
_____ Ask him nicely to let me drink first. -----	1	2	3	4	5
_____ Tell him I'll drink first but I won't be long. -----	1	2	3	4	5
_____ Punch him. -----	1	2	3	4	5
_____ Tell him that if he doesn't let me drink first, I won't be partners with him in gym class next day. -----	1	2	3	4	5

1b. Put a check mark () next to the thing you would do first.

2a.	What would be your goal?	Really				Really			
		Disagree	Disagree	Neutral	Agree	Disagree	Agree	Agree	Agree
_____	Trying to make sure that my other classmates around the water fountain will like me. -----	1	2	3	4	5			
_____	Trying to get back at him for what he just did. -----	1	2	3	4	5			
_____	Trying not to get in trouble with the teacher. -----	1	2	3	4	5			
_____	Trying to make sure that we both get a drink of water. -----	1	2	3	4	5			
_____	Trying to get along with this classmate. -----	1	2	3	4	5			
_____	Trying not to let him push me around. -----	1	2	3	4	5			
_____	Trying to get a drink of water right away. -----	1	2	3	4	5			
2b.	Put a check mark () next to your top goal.								

Appendix C: Parental Consent Letter and Consent Form

Dear Parents,

A research project concerned with children's behavior during peer conflict situations is being conducted by researchers from Carleton University. The purpose of this study is to examine the strategies children use during conflict situations with their peers, in addition to their reasons for choosing one particular strategy over another. Children's actions during problematic 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 in various social situations.

This study will take place at the school your child attends during the month of April. Children will be asked to fill out two questionnaires during a group session in the child's regular classroom. For the first questionnaire, the researcher will present the children with a list of behavioral characteristics (e.g., likes to help others, pushes others). Children will then be asked to list the individuals in their class who display those characteristics. Following this children will be asked to complete a second measure describing a number of hypothetical problem situations with hypothetical peers (e.g., You and your classmates are watching TV. One of your classmates says he/she is bored and changes the channel). Children will then be asked what they would do in each of these problematic situations and to present reasons for their choice. The administration of these questionnaires will take approximately one hour of children's class time. Scheduling of this session will be at the teacher's convenience to minimize interference with daily class routine.

This project has been approved by the Carleton University Ethics Committee, the Lanark County School Board, 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. General, group results of the study, however, will be made available to any interested parents once the data has been analyzed.

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. However, 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 this 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. Lise Paquet (Chair, Department of Psychology Ethics Committee, 520-2600, ext. 2692). Thank you for your assistance.

Sincerely,

Kendra Delveaux (521-8236)

Dr. Tina Daniels (520-2600, ext. 2686)

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 Strategies in Peer 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 D: Oral 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.

Appendix E: Debriefing Letter for Parents

Dear Parents,

We would like to take this opportunity to thank you for your participation in the study on children's strategies in peer social situations. We know that different children choose different strategies in conflict situations with their peers (e.g., aggressive versus prosocial). We know very little, however, regarding children's reasons for choosing one strategy as opposed to another. It was the purpose of this study to determine whether children who choose different strategies pursue different goals in conflict situations. For instance, it may be that children who are prosocial are interested in pursuing relational goals (i.e., being friends with the person) whereas children who are aggressive are more interested in instrumental goals (i.e., obtaining a desired toy or objective). The information gained from this study will be crucial to the development of intervention programs for aggressive children in the future.

Some children engage in aggressive behaviors with their peers at school. Others are sometimes the victims of such behavior. Should you have any questions or concerns about these issues with regards to your own children, you may contact your school psychologist at (*insert phone number here*). Also, if you have any further questions about this study please feel free to contact us at the numbers listed below. Should you have any further ethical concerns, you may contact Dr. Lise Paquet (Chair, Department of Psychology Ethics Committee, 520-2600, ext. 2692).

Thank you once again for your participation.

Sincerely,

Kendra Delveaux (521-8236)

Dr. Tina Daniels (520-2600, ext. 2686)

IMAGE EVALUATION TEST TARGET (QA-3)

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