

ANTISOCIAL AND PROSOCIAL PEER EXPERIENCES AND SOCIAL COGNITIONS
AS PREDICTORS OF CHILDREN'S RESPONSES TO HARASSMENT FROM PEERS

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ABSTRACT

Visconti, Kari Jeanne, M.S., Department of Psychology, College of Science and Mathematics, North Dakota State University, June 2009. Antisocial and Prosocial Peer Experiences and Social Cognitions as Predictors of Children's Responses to Harassment from Peers. Major Professor: Dr. Wendy Troop-Gordon.

The current study examined whether prosocial and antisocial peer experiences and cognitions are predictive of changes in children's coping behaviors in response to peer victimization. Longitudinal data spanning two time points across two consecutive school years were analyzed. Participants included 305 children who were in the 3rd and 4th grades at the beginning of the study. Peer victimization, a significant form of peer stress for many youth, and positive peer treatment were examined, as well as the beliefs children hold about the characteristics and dispositions of their peers (e.g., *peer beliefs*), including both antisocial peer beliefs (i.e., perceptions of agemates as mean, bossy, and untrustworthy) and prosocial peer beliefs (i.e., perceptions of agemates as prosocial, cooperative, and helpful). Five coping strategies were examined – support seeking from friends, parents, and teachers, behavioral avoidance, and retaliation. A series of regressions was performed in which children's coping in the Spring of their 4th or 5th grade year served as the criterion variable. Analyses controlled for children's use of these strategies during the Spring of their 3rd and 4th grade year, respectively, allowing for a test of changes in responses to peer victimization. Children's antisocial and prosocial peer treatment and peer beliefs in the Spring of the 3rd or 4th grade were the primary predictors, and interactions between sex and peer treatment and peer beliefs were included in each regression equation. Results demonstrate that victimization is predictive of decreased retaliation for all children as well as decreased friend support seeking for girls, but not for boys. Prosocial peer treatment was associated with marginal decreases in parent support seeking for girls and was predictive of

increases in friend support seeking for all children. Although no significant relations were found between antisocial peer beliefs and children's coping with victimization, prosocial peer beliefs were predictive of decreases in retaliation for boys; however this relation was not significant for girls. Furthermore, that friendship moderated the link between victimization and retaliation such that peer victimization predicted decreases in retaliation over time for those children with no mutual friendships in their classroom. Findings from this study help elucidate how children's social experiences and related cognitions contribute to the strategies they utilize when coping with peer victimization.

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INTRODUCTION

Although estimates vary, investigators report that approximately 10-20% of children are the victims of chronic harassment from their peers (i.e., bullying; Boulton & Underwood, 1992; Olweus, 1991). This repeated harassment is characterized by an intentional motive to cause harm, whether physical, emotional, or social, as well as an imbalance of power between the victim and aggressor (Olweus, 1991). The consequences associated with peer harassment are broad. Both cross-sectional and longitudinal research has demonstrated significant associations between victimization and numerous indices of maladjustment. These relationships have included such negative outcomes as emotional distress, externalizing behaviors, social isolation, school avoidance, and academic failure (Boulton & Underwood, 1992; Buhs, Ladd, & Herald, 2006; Hawker & Boulton, 2000; Kochenderfer & Ladd, 1996; Rigby, 2001; Troop-Gordon & Ladd, 2005). In addition, peer victimization may have consequences that extend into the social and emotional functioning of adulthood, including difficulties in romantic relationships and bullying in the workforce (Juvonen & Graham, 2001).

Given the substantial impact peer victimization can have on children's long-term well being, and the context-dependent nature of children's coping behaviors (Roecker, Dubow, & Donaldson, 1996), researchers have sought to investigate how children's responses to peer harassment may contribute to trajectories of increased or decreased maltreatment. To this end, studies have been conducted which demonstrate that the coping strategies children employ in response to peer harassment can have significant and differential associations with their victimization experiences, both concurrently and over time. For example, while aggressive strategies, such as fighting back, have been associated

with greater levels of harassment (Mahady Wilton, & Craig, 2000) and continued victimization over time (Kochenderfer & Ladd, 1997), strategies such as problem solving (Baldry & Farrington, 2005) and seeking social support (Kochenderfer & Ladd, 1997; Visconti & Troop-Gordon, in revision) have been linked to lower levels of peer victimization and prospective decreases in harassment. Coping strategies have also been examined as predictors of the adjustment outcomes associated with peer victimization. Strategies which orient the child away from the situation, such as walking away or trying not to think about it, as well as strategies which orient the child towards the situation but in an aggressive manner, such as externalizing behavior or retaliation, have been associated with greater internalizing (e.g., depression, anxiety) and externalizing difficulties (e.g., aggression), as well as lower peer preference and greater social difficulties (Kochenderfer-Ladd & Skinner, 2002; Visconti & Troop-Gordon, in revision). However, whereas seeking adult support has been linked to increased emotional distress (Visconti & Troop-Gordon, in revision), strategies which utilize the presence of social support in the form of friendships may decrease the risk for future emotional and behavioral problems often associated with peer victimization (Bagwell, Newcomb, & Bukowski, 1998; Hodges, Boivin, Vitaro, & Bukowski, 1999).

Research into children's coping with peer victimization has provided strong evidence of the individual variability that exists in children's handling of harassment (Kochenderfer & Ladd, 1997; Salmivalli, Karhunen, & Lagerspetz, 1996). Moreover, studies have shown that children's responses to stress vary as a function of numerous personal and situational factors (Kliewer, Fearnow, & Walton, 1998; Wadsworth & Berger, 2005), demonstrating the need for specific, context-dependent examinations of the

influences on, and outcomes associated with, children's coping in response to stress. In addition, this research demonstrates the importance of coping strategies across a wide range of facets comprising children's social and emotional well-being. However, missing from the extant coping literature is empirical and theoretical work examining the factors that contribute to children's coping choices more generally and in response to peer harassment specifically. Indeed, while only a small body of literature exists examining the predictors of general coping styles or coping in other specific, stressful contexts, studies of those processes which may lead to coping response choices in peer victimization situations specifically are even more scarce (see Hunter, Boyle & Warden, 2004; Roecker Phelps, 2001, for exceptions). As such, the aim of the current study was to expand on the currently limited body of research to examine predictors of children's coping with peer victimization. In order to limit the scope of this study, coping strategies were chosen which reflect the immediate behavioral reactions children engage in when victimized by peers as well as those which are commonly taught to children both through informal and formal intervention efforts. Specifically, five behavioral responses to harassment from peers were investigated: seeking support from parents, teachers, and friends, avoiding the perpetrator, and retaliating.

Two studies, to date, have examined predictors of children's responses to peer victimization. Hunter and colleagues (2004) examined whether exposure to peer victimization and the extent to which children report heightened negative affect when victimized by agemates are associated with support seeking in response to peer harassment. Results indicated that the frequency with which a child experienced victimization was not related to greater levels of support seeking whereas negative emotional responses to

harassment were associated with greater support seeking (Hunter et al., 2004). Such research indicates that socially-induced negative emotions have the potential to predict behaviors in response to victimization, suggesting that other internal processes (e.g., cognition) may also influence coping strategy choice. Although no significant associations were found between victimization and support seeking, these findings were cross-sectional and, as such, may not have been sensitive to the potential for social maladjustment to predict changes in behavior over the course of time. Further research by Roecker Phelps (2001) examined associations between frequency of victimization and prosocial treatment and children's coping with victimization. The findings indicated that children who experienced frequent victimization from their peers were more likely to use internalizing responses and less likely to engage in problem solving than those children experiencing lower levels of victimization. Children who reported receiving higher levels of prosocial treatment from peers, however, reported greater use of problem-solving and support-seeking in response to victimization. No links were found, however, between victimization or prosocial treatment and children's use of distancing (e.g., "I tell myself it didn't matter"; Causey & Dubow, 1992) or externalizing responses.

These studies indicate that intrapersonal and interpersonal processes, both positive and negative, are significantly associated with children's coping with peer victimization. The current study builds on this work in three notable ways. First, the current study examined the relations between peer treatment and coping with victimization longitudinally. Both of the studies discussed above examined the links between these variables concurrently, and, therefore, the direction of effects could not be determined. For example, strategies such as problem-solving or social support seeking may lead to greater

prosocial treatment from peers, rather than the reverse. Indeed, research by Visconti and Troop-Gordon (in revision) has indicated that children's use of specific behavioral responses to peer victimization are associated with changes in social adjustment, including victimization, aggression, and prosocial behavior. The longitudinal design of the current study provides a stronger test of the proposition that peer experiences help shape coping in the face of peer victimization by testing whether peer experiences prospectively predict changes in children's coping strategies.

Furthermore, the current study expands on the existing literature by broadening the scope of investigation to include social cognition as well as peer treatment as a potential predictor of coping behaviors. Research has demonstrated that peer beliefs, a specific form of social cognition which is comprised of the specific beliefs children hold about the characteristics or dispositions of their peers, can alter children's emotions and behaviors (Burks, Laird, Dodge, Pettit, & Bates, 1999; Crick & Dodge, 1994), and may mediate pathways between victimization and subsequent maladjustment (Cole & Turner, 1993; Troop-Gordon & Ladd, 2005). Finally, the study described here provides a more fine grained analysis of children's behavioral responses to victimization by examining support seeking from three distinct sources (e.g., parents, teachers, friends), behavioral avoidance, and retaliation. Previous work examining the relations between support seeking and coping with victimization has combined children's efforts to seek support from both adults and peers (e.g., Roecker Phelps, 2001). As studies has shown that seeking support from adults has different long-term consequences for children's adjustment than seeking support from peers (Visconti & Troop-Gordon, in revision), it is also possible that seeking support from different sources may be associated with different peer experiences and cognitions,

something which may not be detected when examining more global, combined indices of support seeking.

Peer Treatment as a Predictor of Coping with Victimization

Previous research provides initial evidence that treatment from peers is significantly associated with children's coping in the context of victimization. Histories of chronic maltreatment may limit the coping resources available to children and may alter the meaning and contingencies associated with particular response strategies. Prosocial treatment, in contrast, may lead children to believe that they have ample social resources available to them and may decrease motivation to engage in coping responses which might harm peer relationships. Although few studies have been conducted examining coping responses to peer harassment specifically, investigators have linked exposure to peer victimization and prosocial treatment from peers with a number of related indices of behavioral and emotional adjustment.

Victimization. Due to the wide range of well-documented and highly significant negative consequences linked to peer harassment, victimization from agemates is one of the most recognizable and potentially harmful forms of peer stress. For example, victimization is associated, both concurrently and prospectively, with significant increases in maladjustment even when controlling for other forms of peer adversity, such as friendlessness or rejection (Ladd, Kochenderfer, & Coleman, 1997; Ladd & Troop-Gordon, 2003), particularly when chronic (Buhs, Ladd, & Herald, 2006; Kochenderfer & Ladd, 1996; Kochenderfer-Ladd & Wardrop, 2001; Ladd & Troop-Gordon, 2003), and has significant influences on the cognitions and appraisals involved in coping (e.g., Camodeca & Goosens, 2005; Schwartz et al., 1998). As such, peer victimization may predict the

behaviors children choose to enact in these situations (see Crick & Dodge, 1994). For example, studies have demonstrated that victimization predicts the way a child will interpret a social interaction (Camodeca & Goossens, 2005; Camodeca, Goossens, Schuengel, & Terwogt, 2003). Being frequently victimized also has been linked to negative expectations regarding the efficacy of assertive behaviors to resolve social conflicts (Schwartz et al., 1998). However, as these studies have focused on more general social conflicts, research is warranted examining how initial levels of victimization predict changes in behavioral responses to peer harassment over time.

In addition to appraisals and a sense of efficacy, victimization has also been shown to significantly predict a number of other factors which may serve as pathways through which peer harassment influences children's coping choices in response to peer harassment. Research has shown that chronic victimization is related to greater levels of friendlessness (Hodges et al., 1999) and peer rejection (Ladd & Troop-Gordon, 2003). As such, children who are frequently victimized by their peers may have less social capital and reduced resources within their peer group than those who are not chronically bullied and, consequently, may be less likely to turn to friends for help. In contrast, children who are victimized by their peers on a regular basis often have enmeshed relationships with their parents (Bowers, Smith, & Binney, 1992; Ladd & Kochenderfer-Ladd, 1998), characterized by overprotective and intrusive parenting. Furthermore, victimization may be related to overly dependent teacher-child relationships (Troop-Gordon & Becker, in revision). These close relationships with adults may then increase the likelihood that children will view parents or teachers as an appropriate and effective sources of social support when dealing with victimization from peers. In addition, experiencing high levels of victimization has

also been associated with children's active avoidance of social situations. Specifically, research has demonstrated that chronic victimization is linked to greater levels of withdrawal both from school (Buhs et al., 2006; Kochenderfer & Ladd, 1996) as well as from peers specifically (Deater-Deckard, 2001; Newcomb, Bukowski, & Pattee, 1993), and may be associated with a greater likelihood that children will utilize avoidant response strategies when experiencing harassment from peers. Finally, victimization has been linked to increased externalizing behavior (Ladd & Troop-Gordon, 2003; Troop-Gordon & Ladd, 2005). As aggression becomes a large part of these children's global patterns of behavior, it is likely that they will also use aggressive strategies when solving social conflicts and, therefore, may report greater use of retaliation in response to peer harassment.

Prosocial treatment. Social influences on children's coping with peer victimization, however, may not all be detrimental. Indeed, a large body of research has been amassed examining the positive force peers may have on a child experiencing harassment. In general, positive peer relationships provide a context in which children learn essential social skills and develop individual personality characteristics (Hartup, 1995). Prosocial experiences may alter children's goals within social conflicts (Troop-Gordon & Asher, 2005) such that more frequent prosocial peer treatment may lead children to pursue goals of conflict resolution or relationship maintenance and, as such, engage in coping behaviors which reflect these goals. Furthermore, research suggests that receiving prosocial treatment from other children is associated with overall emotional (Martin & Huebner, 2007) and social (Crick, 1996; Storch, Brassard, & Masia-Warner, 2003) adjustment and thus may allow children to use coping strategies which utilize social resources, such as friends and other protective peers. These children may have more positive outcome expectations for the

use of prosocial coping strategies, such as support seeking, as they themselves have been the frequent recipient of kindness from other children. It is also possible that prosocial treatment from peers may provide children with a greater sense of peer group integration. Children who perceive themselves as being active and accepted member in their peer group may be more likely to perceive other children as effective resources when managing victimization and may also develop a diminished reliance on adults.

Thus, greater prosocial treatment from peers should increase reliance on peer support in response to peer victimization, reduce dependency on adults, and decrease reliance on coping strategies detrimental to sustaining positive social relationships such as avoiding others and retaliation. This proposition is consistent with the findings from Roecker Phelps (2001), showing that prosocial treatment from their peers is positively correlated with support seeking in response to victimization. The current study examined whether such associations are prospective (i.e., prosocial treatment as a predictor of subsequent changes in children's coping behavior) and included a wider array of coping responses (i.e., avoidance, retaliation).

Social Cognition as a Predictor of Coping with Peer Victimization

The role of social cognition has been examined both in the context of generally aggressive behavior (Crick & Dodge, 1994; Yoon, Hughes, Cavell, & Thompson, 2000), as well as within the framework of peer victimization specifically (Toblin, Schwartz, Gorman, & Abou-ezzeddine, 2005). Although social cognitions may be examined in terms of the broad patterns that may be characteristic of the individual (e.g., Von Hippel, Lakin, & Shakarchi, 2005), models have been developed which emphasize the importance of examining specific cognitive processes underlying behavioral responses during specific

social interactions (Crick & Dodge, 1994; Dodge & Feldman, 1990). Researchers have begun to identify the social-cognitive biases which may contribute to the psychosocial difficulties evidenced by peer victimized children (Burgess, Wojslawowicz, Rubin, Rose-Krasnow, & Booth-LaForce, 2006, Troop-Gordon & Ladd, 2005). Findings from these studies demonstrate the need for investigations examining not only the difference in social cognitive processing between frequently and infrequently victimized children, but also the potential consequences of these differences, including the role they may play in how children cope with peer victimization.

Research indicates that children form relational schemas, which have been defined as “the cognitive structures representing regularities in patterns of interpersonal relatedness” (Baldwin, 1992, p. 461). These structures involve expectations of behaviors and experiences occurring during interactions with others, and have been shown to significantly influence children’s adjustment and well being (e.g., Lumley & Harkness, 2007; Troop-Gordon & Ladd, 2005). Relational schemas also include expected outcomes of engaging in specific behaviors. As such, children may develop victimization-related knowledge structures which include expectations regarding coping responses. If repeated use of a particular coping response has in the past resulted in the desired context-specific goal (such as reducing anxiety or resolving the situation), this response is likely to be internalized as part of a relational schema as an effective means of dealing with peer victimization in the future, potentially generalizing to other situations (Baldwin, 1992). Indeed, research examining adults’ coping has demonstrated that internalized expectations of interpersonal conflict may be associated with response strategy choices when these relational schemas were primed in advance (Pierce & Lydon, 1998).

Relational schemas may be of particular importance in influencing coping in response to peer victimization, as harassment is likely to occur within the same social context that these knowledge structures are formed. As such, children's knowledge and representations of interpersonal relationships, specifically involving beliefs about peers, may serve a distinct and notable role in victimization-related coping. Indeed, a growing body of research has been accumulated examining children's peer beliefs, consisting of those beliefs they hold about the characteristics and dispositions of other children within their peer group (MacKinnon-Lewis, Rabiner, & Starnes, 1999; Rabiner, Keane, & MacKinnon-Lewis, 1993). Research by Burks and colleagues (1999) demonstrated that children's beliefs regarding their peers are both associated with, and predictive of, changes in externalizing behaviors, while further research has shown that such beliefs, particularly when hostile, may be specifically related to the use of aggression in social interactions (Burks et al., 1999). Peer beliefs have also been implicated in the development of internalizing and externalizing difficulties associated with peer victimization (Troop-Gordon & Ladd, 2005), suggesting that these schemas can play a direct role in emotional, as well as behavioral, well being. Thus, it was anticipated that peer beliefs would play a significant role in the development of coping responses to peer victimization.

Peer beliefs may impact children's coping responses by influencing how children interpret other's actions, the strategies they generate in response to social or personal threat, and their evaluation of the likely efficacy and outcomes associated with different response strategies. Moreover, children's understanding as to the antisocial or prosocial nature of members of their peer group may reflect underlying beliefs regarding which behaviors are considered normative. For example, children who hold more antisocial peer beliefs may

view retaliatory, aggressive behaviors as normative; whereas those with prosocial peer beliefs may see turning to others for assistance as typical for their peer group.

Consequently, children may act in ways which they deem to be normative, even if such behaviors are generally thought to be socially maladaptive (Guerra, Huesmann, & Hanish, 1995; Huesmann, Guerra, Zelli & Miller, 1992). To assess these potential relations, the current study examined the role of both prosocial and antisocial peer beliefs in predicting changes in children's behavioral responses to victimization over time.

Sex as a Moderator of the Relation between Prosocial and Antisocial Peer Treatment and Social Cognition and Coping with Peer Victimization

Extensive research regarding sex differences in children's emotional and social functioning has demonstrated the potential for sex to affect children's functioning and to moderate the impact of other formative factors. For example, sex may directly predict normative peer group behaviors and, as such, may serve to impact the social context in which aversive peer interactions occur. By setting standards for those behaviors which are expected and appropriate, sex differences in peer group norms may shape the larger social context in which coping responses develop. Indeed, boys and girls often engage in sex-segregated play and relationships, characterized by significantly different patterns of behavior as well as differing salient features which exemplify their interactions and behaviors (Rose & Rudolph, 2006). Girls, for example, are more likely than boys to act in a prosocial manner both in general (Crick & Grotpeter, 1995), and in response to hypothetical instances of peer conflict (Chung & Asher, 1996). Boys, however, are more likely than girls to endorse responses to peer conflict which reflect goals of control and revenge (Rose & Asher, 1999), such as assertion or retaliation. Boys also are more likely to

interact with peers in large group settings, whereas girls are more likely to value dyadic relationships (Fabes, Martin, & Hanish, 2003; Ladd, 1983), suggesting that boys may be more integrated into their larger social context than are girls (Benenson, 1990).

These sex differences in peer groups norms, structure, and behavior may be reflected in the ways and extent to which coping responses are socialized. As children are likely to act in ways which are normative of their specific peer group (Chang, 2004; Henry, Guerra, Huesmann, Tolan, VanAcker, & Eron, 2000), and these peer groups are often segregated by sex (Rose & Rudolph, 2006), it is likely that those predicted relations between peer treatment would be stronger when both the predictor and specific direction of behavioral change are characteristic of typical sex differences. Specifically, it was anticipated in the current study that gender normative peer treatment would enhance existing sex differences in children's coping with harassment from peers. For example, as prosocial behavior (Rose & Rudolph, 2006) and both support seeking in response to victimization (Visconti & Troop-Gordon, in revision) are more normative for girls, the pathway between prosocial treatment and changes in the use of support seeking and avoidance may be stronger for girls than for boys. On the other hand, as aggression and peer victimization are more commonly reported for boys (Olweus, 1993) as are externalizing coping strategies (Salmivalli et al., 1996; Visconti & Troop-Gordon, in revision), the relation between negative peer treatment and retaliatory responding may be stronger for boys than for girls. As previous research has not demonstrated significant sex differences in peer beliefs (e.g. Salmivalli & Isaacs, 2006), children's sex was not anticipated to moderate the relations between antisocial and prosocial peer beliefs and coping with victimization.

Friendship as a Moderator of the Link Between Victimization and Maladaptive Coping

One notable factor which researchers have demonstrated plays a significant protective role for victimized children is the presence of a friend. Children's friendships serve an integral role in their healthy development, contributing to children's self-esteem and self-awareness as well as their emotion regulation skills (Hartup, 1995). More recent research has examined the specific role of friendships within the context of peer victimization. For example, research by Hodges and colleagues (1999) indicates that links between victimization and internalizing and externalizing problems are lessened when victims have a best friend who is willing and able to provide support (see also Hodges, Malone, & Perry, 1997; Schmidt & Bagwell, 2007). As the current study examines changes in the use of coping strategies as an outcome of children's peer victimization experiences, it is important to examine the role friendship may play in moderating these relations. For example, as children who are the frequent victims of peer harassment are more likely than other children to be friendless (Ladd, Kochenderfer, & Coleman, 1997), it is unlikely that children who are friendless will report utilizing friend support seeking in response to victimization due to the unavailability of such support. Likewise, those children who experience victimization but have one or more friends available to them may be less likely to rely on maladaptive coping strategies (e.g., retaliation).

To this end, a set of analyses was conducted in this study to examine how relations between experiences of peer victimization and changes in children's use of behavioral coping strategies vary as a function of friendships. Specifically, those children with no mutual friendships in their classroom were compared to those with at least one mutual friendship. It was anticipated that the presence of a friend within children's classrooms

would serve to buffer them against the development of maladaptive coping strategies predicted by peer victimization. For example, whereas a child who is victimized is anticipated to demonstrate significant decreases in friend support seeking and increases in adult support seeking, as well as significant increases in avoidance and retaliation, these relations may only be significant for those children who do not have a friend within their classroom.

The Current Study

In summary, the current study aimed to examine whether prosocial and antisocial peer experiences and cognitions are predictive of changes in children's coping behaviors in response to peer victimization. One form of antisocial peer experience, victimization, and one form of prosocial peer experience, prosocial treatment, were included. In addition, children's prosocial and antisocial beliefs regarding their peers' actions and dispositions were examined. Predictive associations were tested over two waves of data collection, for five common behavioral responses to peer harassment: seeking support from a parent, seeking support from a teacher, seeking support from a friend, avoidance, and retaliation. In addition, the potential moderating effect of children's sex on the link between each predictor and behavioral response was examined. Finally, friendship was examined as a potential moderator of the links between victimization and changes in children's coping behaviors.

While previous research has sought to identify correlates of children's coping with peer victimization (e.g., Hunter, Boyle, & Warden, 2004; Roecker Phelps, 2001), the current study focuses instead on predicting changes in children's coping strategies across a longitudinal framework. Coping has previously been described as a dynamic process that is

subject to change as a function of situational, contextual, and personal factors (Ebata & Moos, 1994; Fleishman, 1984; Folkman, 1984) and changes in coping behavior provide insight to the processes individuals use to reduce or eliminate stress, both internal and environmental. While cross-sectional research provides groundwork for understanding the correlates of particular coping behavior, a longitudinal approach permits greater investigation of how interpersonal and cognitive factors can play a role in shaping the development of coping behaviors over time.

It was anticipated that significant prospective relations would emerge between both antisocial and prosocial peer treatment and social cognitions and children's behavioral responses to peer victimization and that a number of these relations would vary as a function of children's sex. Specifically, victimization was expected to predict significant decreases in friend support seeking. As the general quality of children's social interactions is diminished, it is reasonable that their willingness to turn to friends for help, and beliefs that such a response would be effective in garnering desired support, would be reduced. Peer victimization was also expected to predict increases in support seeking from adults. Research has identified developmental trends in children's use of support seeking (Helsen, Vollebergh, & Meeus, 2000). As children transition in to early adolescence, a shift occurs in which greater emphasis is placed on relationships with friends, and adults become less central figures in children's social network (Meeus, du Bois-Reymond, & Hazekamp, 1991). Indeed, research by Steinberg and Silverberg (1986) demonstrated that, as children enter early adolescence, a trade-off occurs between time spent with peers and time spent with adults such that children become more dependent on their friends and less so on their parents. Coinciding with this shift are changes in perceptions of social support such that

children moving from childhood into early adolescence begin to expect greater social support from friends and less from adults, such as parents (Cauce, Reid, Landesman, & Gonzales, 1990). To this end, it becomes less normative for children to seek support from adults and more common to go to friends for assistance. Based on evidence that support seeking from adults is non-normative for the specific age group being studied, it is predicted that increased support seeking from adults will be positively predicted from aversive peer treatment. This prediction is consistent with research by Visconti and Troop-Gordon (in revision) showing that seeking support from parents in response to victimization is predictive of increases in social loneliness.

Moreover, as children who are the target of frequent victimization often report greater levels of social withdrawal over time, victimization was hypothesized to predict increases in avoidant responding. Finally, victimization was anticipated to increase retaliatory responding, as peer harassment has previously been associated with increases in externalizing behaviors (Troop-Gordon & Ladd, 2005). This relation was anticipated to be particularly strong for boys, for whom both victimization (Olweus, 1993) and retaliatory responding (Visconti & Troop-Gordon, in revision) are gender normative.

Significant relations were also anticipated to emerge between prosocial treatment and children's coping with peer victimization. Specifically, prosocial peer treatment was expected to be predictive of significant increases in social support seeking from friends over time, and that this relation would be stronger for girls than for boys. Previous positive experiences with peers may demonstrate to victimized children that friends are a valuable source of support when dealing with harassment, thus increasing the likelihood that children will turn to friends when faced with mistreatment from peers. As both support

seeking and prosocial treatment are more normative for girls than for boys (Rose & Rudolph, 2006; Visconti & Troop-Gordon, in revision), it was anticipated that positive peer treatment will intensify this gender difference. Prosocial peer treatment was also expected to predict decreases in adult support seeking, as children develop greater immersion in their peer group and, subsequently, less orientation towards adults such as parents or teachers. Significant associations were also anticipated to emerge between prosocial treatment from peers and children's use of avoidance in response to victimization such that prosocial treatment would be predictive of decreased avoidant coping. Finally, prosocial peer treatment was expected to predict significant decreases in retaliatory responding over time. Peer experiences which encompass fewer negative interactions and more positive qualities, such as friendliness and sharing, may result in peers' greater modeling of positive behavior and reduced perceptions of aggression as a normative response to others.

Social cognitions, in the form of peer beliefs, were also hypothesized to predict significant changes in children's behavioral responses to peer victimization over time. Antisocial peer beliefs were anticipated to predict significant decreases in support seeking from friends, as children espousing negative perceptions of peers are less likely to see their friends as being helpful. Beliefs about one's peers as mean or unwilling to provide support may also result in greater social withdrawal and a more avoidant behavioral style of handling conflict. Therefore, significant positive associations were also anticipated to emerge between antisocial peer beliefs and children's use of avoidant responding. Finally, antisocial peer beliefs were expected to predict significant increases in retaliatory responses, as revenge seeking may be perceived by these children as more normative. It should also be noted that, unlike antisocial peer treatment, antisocial peer beliefs were not

expected to predict increases in adult support seeking. It is likely that by late childhood children's social knowledge structures are highly context specific and impact their behavior within the specific social sphere to which these schemas apply. As such, knowledge structures regarding peers are not anticipated to impact children's behaviors towards adults.

In contrast with antisocial peer beliefs, prosocial peer beliefs were expected to predict significant increases in support seeking from friends over time. It is logical that children who believe their peers to be kind and helpful are also more likely to view them as a beneficial source of support when dealing with social conflict. Prosocial peer beliefs were also expected to predict significant decreases in retaliation over time as these children are likely to view aggression and aggressive coping as a non-normative behavior. No significant relations were anticipated between prosocial peer beliefs and support seeking from adults (i.e., parents, teachers) or avoidant responding.

Finally, friendship was anticipated to moderate the link between victimization and children's coping with harassment from peers. As the presence of a friend has been shown to buffer children against the increased maladjustment associated with victimization (Hodges et al., 1999), it is likely that the presence of at least one friend will reduce the likelihood that peer victimization will lead to maladaptive changes in coping behavior (e.g., decreased friend support seeking, increased parent and teacher support seeking, increased avoidance, increased retaliation).

METHODS

Participants

Data from this study came from 305 children (141 boys; 164 girls; $M_{age} = 9$ years, 4.57 months; $SD_{age} = 7.87$ months) participating in the North Dakota State University Youth Development Study, a two-year longitudinal study examining the social, cognitive, and behavioral correlates of children's peer relationships. Data acquired during the second and fourth waves of data collection were used in the current study. At the beginning of the study, 3rd- and 4th-grade students from five public elementary schools were invited to participate. Consent forms were sent home with all students in those classrooms whose teacher agreed to participate in the study. Of those students invited to participate, 365 (73.9%) obtained parental consent and were included in the first wave of data collection. During the second year of the study, 92.1% of these children continued participation, and an additional 99 students were added. The sample was primarily Caucasian (91.1%; 3.6% Native American; 3.0% Mixed Ethnicity; 1.0% Asian-American; 1.0% Hispanic; .30% African-American) and reported annual household incomes at or above \$41,000 (80.4%). For the purpose of this study, only those children with complete data from Spring of the first year and the Spring of the second year of data collection were included in order to predict changes in behavioral responses to peer victimization over a span of one calendar year (83.56% of the initial 365 participants). Missing data for this study were primarily due to incomplete forms or children moving to a classroom during the second year of the study in which permission to collect data was not granted by the teacher.

Measures

Behavioral responses to peer victimization. Children's behavioral responses to peer victimization were assessed with Kochenderfer-Ladd and Pelletier's (2008) revision of Causey and Dubow's (1992) Self-Report Coping Scale (see Appendix A) and data from both Time 1 (Spring of the first year) and Time 2 (Spring of the second year) were used in the current study. For this measure, children rated the frequency with which they enacted specific behaviors "when kids [were] being mean to [them]" on a four-point scale from 1 (*Never*) to 4 (*Every time*). Three items assessed support seeking from parents (e.g., "get help from my mom or dad"; $\alpha_{\text{Time 1}} = .87$; $\alpha_{\text{Time 2}} = .92$). Three items assessed social support seeking teachers (e.g., "get help from a teacher"; $\alpha_{\text{Time 1}} = .82$; $\alpha_{\text{Time 2}} = .86$). Four items assessed social support seeking from friends (e.g., "ask a friend what I should do"; $\alpha_{\text{Time 1}} = .84$; $\alpha_{\text{Time 2}} = .89$). Five items assessed behavioral avoidance or ignoring (e.g., "walk away from the kids who were mean"; $\alpha_{\text{Time 1}} = .65$; $\alpha_{\text{Time 2}} = .70$). Four items assessed retaliation (e.g., "hurt the kid back"; $\alpha_{\text{Time 1}} = .81$; $\alpha_{\text{Time 2}} = .87$). Composite scores for each behavioral response were computed by averaging the items in each subscale.

Victimization. Initial levels of victimization (e.g., victimization at Time 1, Spring of the first year) were assessed using four peer-rating items (Ladd & Kochenderfer-Ladd, 2002; see Appendix B). Students were asked to rate how often each participating classmate was generally victimized ("gets picked on by other kids"), physically victimized ("gets hit or pushed at school"), verbally victimized ("called bad names or [kids] says other mean things to him or her"), and relationally victimized ("gets left out of things that kids are doing"). Children's received ratings from classmates were averaged to create mean scores for each form of peer victimization, and these item-level scores were then be averaged to

create a composite victimization score. Cronbach alpha for the composite victimization variable was .89.

Prosocial peer treatment. Six items from the prosocial peer treatment subscale of the Social Experiences Questionnaire (SEC; Crick & Grotpeter, 1996) were used to assess the frequency with which children experience prosocial treatment from their peers at Time 1 (see Appendix C). Children were asked to indicate how often kids in their class “act friendly toward you”, “share things with you”, “tell you that you are good at doing things”; “let you play with them”; “cheer you up if you feel sad”; and “help you if you are being picked on by other kids”. Ratings were made on a four-point scale from 1 (*Never*) to 4 (*A lot*). Scores across these six items were averaged to create a mean prosocial peer treatment score ($\alpha = .81$).

Peer beliefs. Children’s cognitions regarding the dispositions of their peers during Time 1 of the study were assessed using The Peer Belief Inventory (PBI; Rabiner et al., 1993; see Appendix D). The measure consists of five items tapping children’s beliefs about the frequency with which their peers exhibit antisocial qualities (e.g., *mean, bossy*) and five items tapping children’s beliefs about the frequency with which their peers exhibit prosocial characteristics (e.g., *friendly, sharing*). Children were asked to rate how often they viewed other children as demonstrating these characteristics on a four-point scale from 1 (*Never*) to 4 (*A lot*). Items assessing antisocial perceptions of agemates were averaged to create a mean antisocial peer beliefs score ($\alpha = .84$) and items assessing prosocial perceptions of agemates were averaged to create a mean prosocial peer beliefs score ($\alpha = .75$).

Friendship. Children's mutual best friendships during Time 1 were assessed using a peer nomination measure (Parker & Asher, 1993; see Appendix E). Children were given a list containing the names of their participating classmates and were asked to circle the names of up to five other children who were their good friends or best friends. Mutual friendships were considered those in which two children circled each other's names. Children's friendship status was scored as 0 if they had no mutual friends in their class and 1 if they had one or more mutual friends.

Procedures

Data collection for the NDSU Youth Development Study took place during the Fall and Spring of the 2005-2006 and 2006-2007 school years. At each wave of data collection, written assent was obtained from children, and questionnaires were administered in the classroom, taking approximately 45 minutes to complete. Measures on these questionnaires included both self- and peer-reports. At these times, one research assistant read the questions aloud to students while two to three additional research assistants were available to answer any questions or assist students as needed. Upon completion, children were thanked for their participation in the study.

RESULTS

Preliminary Analyses

Missing data analyses. Of the 464 potential participants, 159 children (34.3%) were excluded from the current study as a result of incomplete data during the Spring of the first year or Spring of the second year of the project. T-tests were performed to examine any potential differences in study variables (e.g., peer treatment, peer beliefs, coping behaviors) between those children who were included in the current study and those who were excluded as a result of incomplete data. Results indicated that children with incomplete data ($M = .40$; $SD = .04$) were more likely than children with complete data ($M = .28$; $SD = .02$) to report using retaliation in response to victimization at Time 2 ($t(398) = -2.66, p < .01$). In addition, children excluded from the current study on the basis of incomplete data were identified as experiencing greater levels of victimization at Time 1 ($M = .44$; $SD = .03$) than children with complete data ($M = .36$; $SD = .01$; $t(363) = -2.96, p < .01$). No other significant differences emerged between included and excluded study participants.

Descriptive statistics and sex differences. Means and standard deviations for all study variables are shown in Table 1. Descriptive statistics are presented in this table for the entire sample, as well as for boys and girls separately. Skewness tests and histograms were used to examine the normality of variables, and, as a result, antisocial peer beliefs, victimization, and retaliation at both the first and second time points were log transformed to correct for skewness. Although the descriptive statistics presented are based on the raw variable scores, all other statistics utilized the log-transformed scores. In addition, t-tests were conducted to examine any potential sex differences in children's peer treatment, peer beliefs, and coping strategies (see Table 1). Analyses demonstrated significant differences

consistent with previous research (Visconti & Troop-Gordon, in revision). Specifically, girls were more likely than boys to report seeking support from parents, teachers, and friends, and were more likely to report using avoidance than boys at Time 2. Boys were more likely than girls to report using retaliation in response to peer victimization at both time points. In addition, boys were more likely than girls to be victims of peer harassment whereas, somewhat surprisingly, girls were more likely than boys to report antisocial peer beliefs.

Descriptive Statistics									
	Total Sample				Boys		Girls		
Variable	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i> -test
T1 parent support	2.49	.91	1.00	4.00	2.28	.92	2.66	.87	-3.77***
T1 teacher support	2.37	.85	1.00	4.00	2.27	.90	2.46	.79	-1.97*
T1 friend support	2.40	.80	1.00	4.00	2.17	.76	2.59	.79	-4.81***
T2 avoidance	2.48	.63	1.00	4.00	2.43	.66	2.52	.60	-1.31
T2 retaliation	1.33	.52	1.00	4.00	1.45	.60	1.22	.42	4.09***
T2 parent support	2.24	.98	1.00	4.00	2.02	.95	2.42	.97	-3.60***
T2 teacher support	2.05	.82	1.00	4.00	1.89	.79	2.20	.81	-3.35***
T2 friend support	2.35	.88	1.00	4.00	1.99	.80	2.66	.82	-7.12***
T2 avoidance	2.36	.61	1.00	4.00	2.25	.64	2.46	.56	-2.95**
T2 retaliation	1.43	.62	1.00	4.00	1.65	.77	1.24	.35	5.89***
Victimization	1.46	.27	1.03	2.68	1.50	.29	1.43	.26	2.33*
Prosocial treatment	3.13	.62	1.33	4.00	3.09	.66	3.16	.58	-.93
Antisocial peer beliefs	1.89	.73	1.00	4.00	1.74	.67	2.02	.75	-3.59***
Prosocial peer beliefs	3.10	.65	1.00	4.00	3.10	.66	3.10	.63	-.03

Note. † $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 1. Descriptive statistics for the total sample, boys, and girls

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. T1 parent support	--												
2. T1 teacher support	.64**	--											
3. T1 friend support	.37**	.44**	--										
4. T1 avoidance	.38**	.37**	.40**	--									
5. T1 retaliation	-.21**	-.23**	-.08	-.13*	--								
6. T2 parent support	.50**	.37**	.21**	.24**	-.27**	--							
7. T2 teacher support	.40**	.48**	.27**	.24**	-.24**	.68**	--						
8. T2 friend support	.26**	.26**	.48**	.24**	-.15**	.36**	.39**	--					
9. T2 avoidance	.24**	.30**	.25**	.38**	-.29**	.35**	.41**	.37**	--				
10. T2 retaliation	-.18**	-.18**	-.15**	-.21**	.55**	-.20**	-.20**	-.16**	-.31**	--			
11. Vic	-.12*	-.03	-.08	-.09	.21**	-.09	-.05	-.13**	-.13*	.04	--		
12. Prosocial treatment	.18**	.21**	.36**	.23**	-.09	.09	.05	.25**	.11†	-.10†	-.34**	--	
13. Antisocial peer beliefs	.06	.00	-.05	.04	.21***	.13*	.07	.02	.07	.09	.22**	-.31**	--
14. Prosocial peer beliefs	.19**	.21**	.33**	.28**	-.18**	.13*	.04	.15**	.15**	-.17**	-.28**	.58**	-.45**

Note. † $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2. Bivariate correlations

Bivariate correlations. Bivariate correlations among all study variables are presented in Table 2. Correlations among children's coping behaviors were significant and consistent with previous research (Visconti & Troop-Gordon, in revision). The support seeking variables (e.g., parent, teacher, and friend support seeking) were significantly and positively correlated at both the first and second time points, although not so strong as to suggest that these strategies should be combined into a single variable. In addition, all forms of support seeking were positively correlated with avoidant responding and negatively correlated with retaliation. Similarly, retaliation was significantly and negatively correlated with avoidance. All coping strategies demonstrated significant stability.

Significant correlations also emerged between the peer treatment variables and children's coping responses. Peer victimization was negatively correlated with parent support seeking and retaliation at time one and was negatively and modestly correlated with friend support seeking and avoidance at Time 2. Prosocial peer treatment was significantly and positively correlated with all support seeking strategies as well as avoidance at Time 1. Furthermore, prosocial treatment from peers was positively correlated with friend support seeking and avoidance at Time 2 and was negatively correlated with retaliation. Antisocial peer beliefs were positively correlated with retaliation at Time 1 and were positively correlated with support seeking from parents at Time 2. Antisocial peer beliefs also demonstrated a significant and positive correlation with victimization and were negatively correlated with prosocial peer treatment. Prosocial peer beliefs were positively correlated with all support seeking variables as well as avoidance and were negatively correlated with children's use of retaliation at Times 1 and 2, although the correlation between prosocial peer beliefs and teacher support seeking during the second time point did not reach significance.

Predictors of Change in Coping Behaviors

In order to assess whether prosocial and antisocial peer experiences and cognitions are predictive of changes in behavioral responses to peer victimization across one calendar year, as well as whether these predictive relations vary as a function of children's sex, a series of hierarchical linear regression analyses, as outlined by Aiken and West (1991), was performed (see Table 3). Separate regressions were conducted for each of the behavioral responses to peer victimization (i.e., seeking parent support, seeking friend support, seeking teacher support, avoidance, and retaliation). Thus, a total of five regressions were

conducted. In each regression analysis, children's initial level of the behavioral coping strategy was included in the first block. The second block of predictors included children's sex and initial levels of each peer treatment variable (i.e., victimization, prosocial treatment) and peer belief variable (i.e., antisocial peer beliefs, prosocial peer beliefs). The third block of predictors included all sex \times predictor interactions. Sex was dummy coded (0 = boys; 1 = girls), and the peer treatment and peer beliefs scores were centered before creating interaction terms and running the regressions. Significant sex \times predictor interactions were analyzed by testing the simple slopes for boys and girls separately (Aiken & West, 1991; Bauer & Curran, 2005).

Unstandardized Regression Coefficients										
Predictor	Parent Support Seeking		Teacher Support Seeking		Friend Support Seeking		Avoidance		Retaliation	
	b	ΔR^2	b	ΔR^2	b	ΔR^2	b	ΔR^2	b	ΔR^2
Step 1		.25***		.23***		.23***		.14***		.30***
Time 1 coping	.48***		.47***		.40***		.32***		.56***	
Step 2		.02 [†]		.03 [†]		.08***		.03 [†]		.06***
Sex	.16		.20		.45***		.14 [*]		-.16***	
Victimization	.19		-.10		.50		.05		-.27 [†]	
Prosocial treatment	.15		.04		.32**		.01		.04	
Antisocial peer beliefs	.21		.24		.20		.02		.06	
Prosocial peer beliefs	.07		-.04		-.06		.14		-.14**	
Step 3		.01		.81		.02 [*]		.01		.02 [†]
Victimization \times sex	-.59		-.28		-1.33 [*]		-.56		.00	
Prosocial treatment \times sex	-.39 [†]		-.19		-.25		-.07		-.10	
Antisocial PB \times sex	.25		-.35		-.37		.16		-.08	
Prosocial PB \times sex	.20		-.04		-.03		-.10		.16 [*]	

Note. [†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3. Unstandardized regression coefficients for predicting changes in coping as a function of peer treatment, peer beliefs, and sex

Victimization. A significant victimization \times sex interaction was found for friend support seeking such that victimization was predictive of decreased friend support seeking over time for girls ($b = -.83, p < .05$), but not for boys ($b = .50, p = ns$). Figure 1 depicts this interaction, illustrating that, at high levels of victimization (e.g., one standard deviation above the mean), gender differences seen between boys and girls at low levels of victimization (e.g., one standard deviation below the mean) are diminished. In addition, a main effect of victimization was found such that victimization was predictive of marginal decreases in retaliation for all children ($b = -.27, p < .10$). No significant associations were found between victimization and changes in support seeking from adults of avoidance.

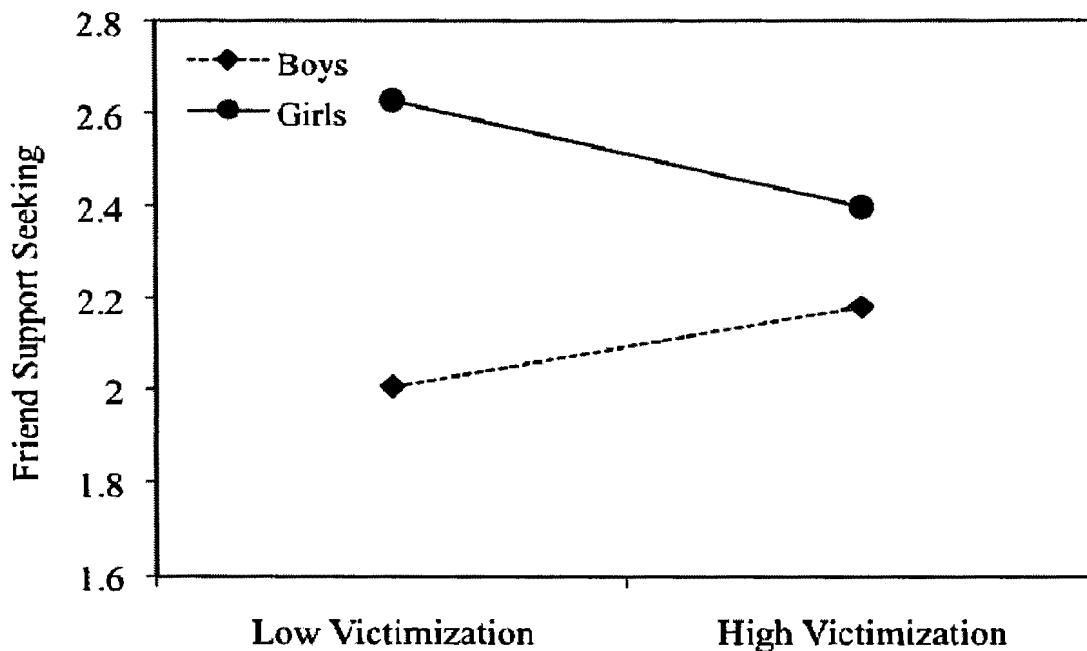


Figure 1. Changes in children's friend support seeking as a function of initial levels of peer victimization for boys and girls.

Prosocial peer treatment. A marginally significant prosocial treatment \times sex interaction was found for parent support seeking. Tests of simple slopes revealed that prosocial treatment from peers was associated with marginal decreases in support seeking from parents for girls ($b = -.23, p < .10$), but not for boys ($b = .15, p = ns$). As seen in Figure 2, gender differences seen at low levels of prosocial treatment are significantly decreased at high levels of prosocial treatment. Prosocial treatment was also predictive of increases in friend support seeking over time for all children ($b = .32, p < .01$). Prosocial treatment was not predictive of changes in support seeking from teachers, avoidance, or retaliation.

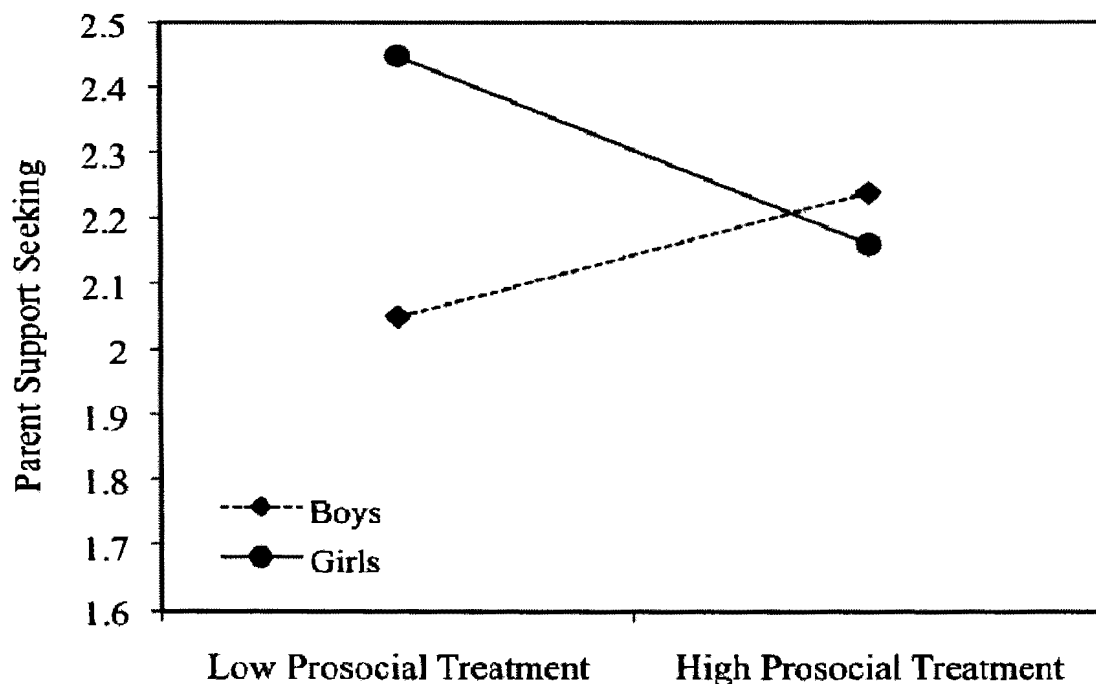


Figure 2. Changes in children's parent support seeking as a function of initial levels of prosocial peer treatment for boys and girls.

Antisocial peer beliefs. No significant predictive relations were found between antisocial peer beliefs and changes in children's use of coping in response to victimization.

Prosocial peer beliefs. A single significant interaction emerged between prosocial peer beliefs and changes in children's coping with victimization. Specifically, a prosocial peer beliefs \times sex interaction emerged for retaliation. Tests of simple slopes indicated that prosocial peer beliefs were associated with significant decreases in retaliation over time for boys ($b = -.14, p < .01$), but not for girls ($b = .02, p = ns$), as seen in Figure 3. Indeed, high levels of prosocial peer beliefs predicted declines in retaliation for boys such that the gender differences seen at low levels of prosocial beliefs were substantially reduced. Prosocial peer beliefs were not predictive of changes in support seeking from adults, avoidance, or retaliation.

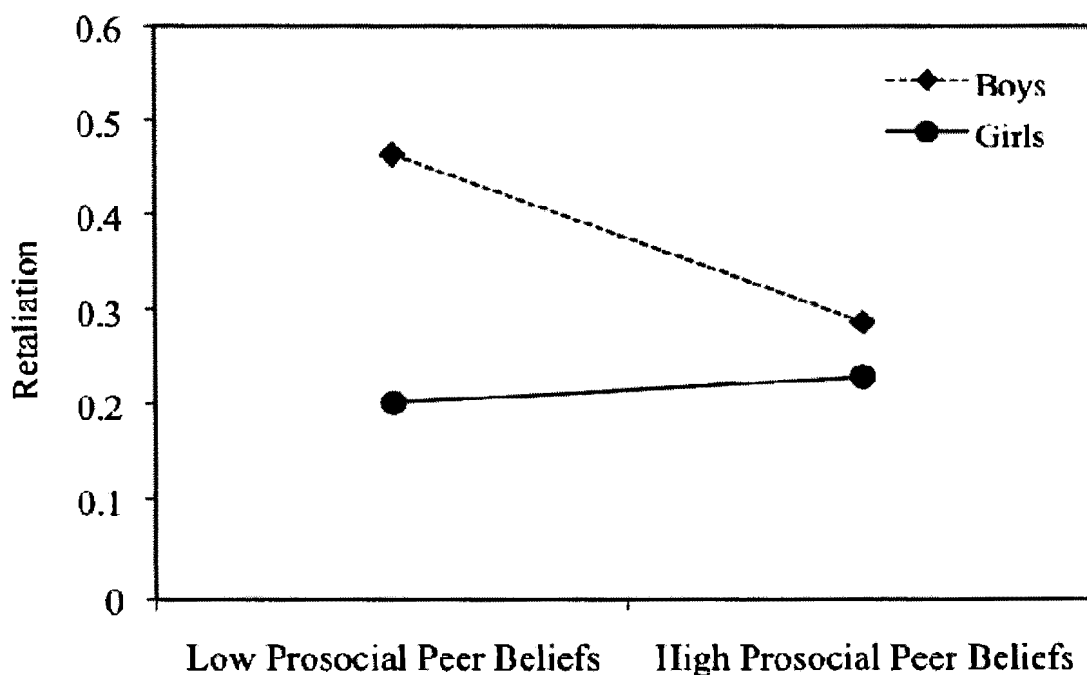


Figure 3. Changes in children's retaliation as a function of initial levels of prosocial peer beliefs for boys and girls.

Friendship as a Moderator of the Link between Victimization and Coping

To examine the potential moderating effects of the presence of a friend on the prospective link between victimization and children's coping behavior, a separate set of analyses was conducted. The friendship variable was dichotomized, resulting in two separate groups: those children with no mutual friendships in their classroom ($n = 26$; 11 boys; 15 girls) and those children with at least one mutual friendship in their classroom ($n = 278$; 130 boys; 148 girls). Friendship was dummy coded to reflect these two groups (0 = no friends; 1 = at least one friend). A series of hierarchical linear regression analyses was then performed to examine the potential moderating effect of friendship on the relation between victimization and children's coping with peer harassment (see Table 4). Separate regressions were performed for each behavioral coping strategy and victimization was mean centered before creating interaction terms and running the regressions. The first block of the regression contained children's initial reported levels of the coping strategy. The second block contained sex, peer-reported victimization, and children's dichotomized friendship score. The third block contained all two-way interactions between these variables. Moreover, to examine how these relations may also vary as a function of children's sex, a fourth block was included which contained a three-way interaction between victimization, friendship, and sex. These analyses revealed a single marginally significant victimization \times friendship interaction for retaliation. Tests of simple slopes indicated that victimization was predictive of decreases in retaliation for those children with no friends ($b = -.89, p < .05$), but not for children with at least one friend in the classroom ($b = -.06, p = ns$), as depicted in Figure 4. No other significant interactions were found.

Unstandardized Regression Coefficients										
Predictor	Parent Support Seeking		Teacher Support Seeking		Friend Support Seeking		Avoidance		Retaliation	
	b	ΔR^2	b	ΔR^2	b	ΔR^2	b	ΔR^2	b	ΔR^2
Step 1		.25***		.23***		.23***		.14***		.30***
Time 1 coping	.51***		.44***		.43***		.35***		.56***	
Step 2		.01		.02*		.07***		.03*		.06***
Sex	.10		.36		.47		.33		-.16***	
Victimization	1.00		1.62		1.02		.62		-.27†	
Friendship	-.17		-.02		.12		.12		.04	
Step 3		.00		.00		.01		.00		.02†
Victimization × sex	-1.20		-2.25		-1.52		-1.84		.00	
Friendship × sex	.12		-.13		-.01		-.17		-.10†	
Victimization × friendship	-1.19		-1.81		-.84		-.80		-.08	
Step 4		.00		.01		.00		.00		
Victimization × friendship × sex	1.07		2.22		.46		1.68			

Note. † $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$

Table 4. Unstandardized regression coefficients for predicting changes in coping as a function of peer victimization and friendship

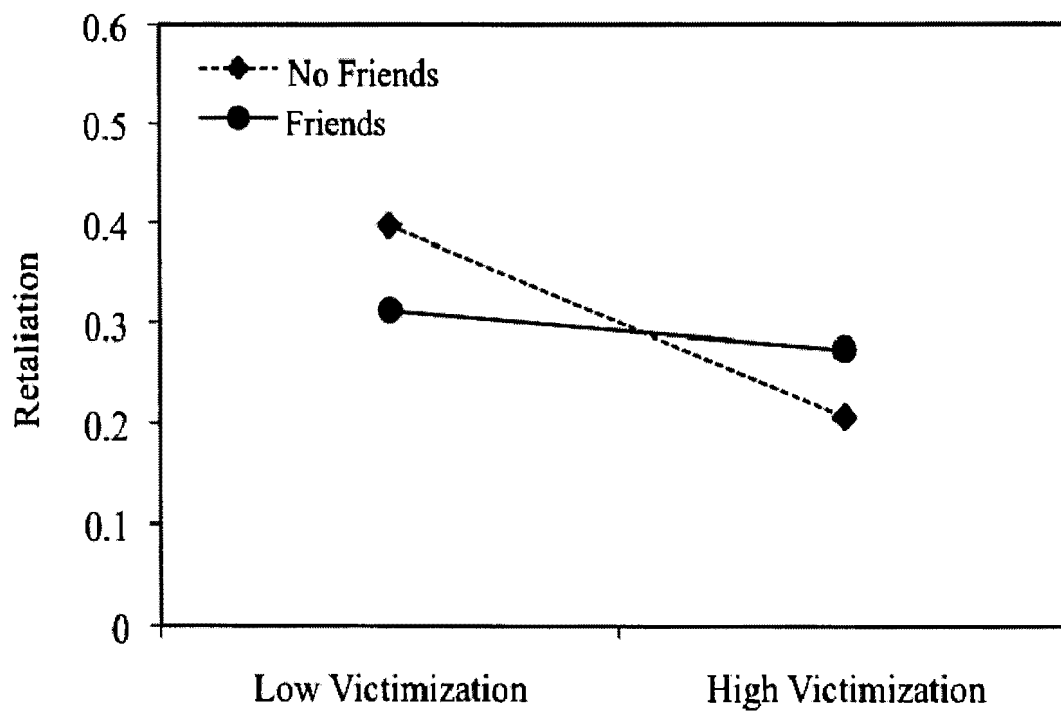


Figure 4. Changes in children's retaliation as a function of initial levels of peer victimization for children with no mutual friendships and at least one mutual friendship in their classroom.

DISCUSSION

Results of this study contribute to the literature by demonstrating significant and differing predictive relations between children's peer experiences, as well as their beliefs regarding their peers, and the ways in which they respond to social conflict. Furthermore the current study demonstrates that these relations have the potential to vary as a function of children's sex. Results from the study extend previous work by Roecker Phelps (2001), as well as Hunter and colleagues (2004), by testing these relations longitudinally, thus allowing for the establishment of temporal precedence (e.g., predictors forecast subsequent changes in children's coping strategies) and bolstering the argument that peer experiences and beliefs play a role in shaping children's coping behavior.

One of the most notable results of the current study was the predictive relation between prosocial treatment and increases in friend support seeking. This finding is consistent with associations found in previous research demonstrating the important value of positive peer experiences and relationships within children's peer group. Specifically, researchers have indicated that positive treatment from peers is associated with lower levels of loneliness and greater social satisfaction (Parker & Asher, 1993) as well as higher levels of positive affect (Martin & Huebner, 2007), may serve to protect children from future victimization (Hodges et al., 1997), and may buffer victimized children against the negative consequences associated with peer harassment (Martin & Huebner, 2007; Prinstein, Boergers, & Vernberg, 2001; Storch, Nock, Masia-Warner, & Barlas, 2003). Furthermore, researchers examining children's coping behaviors have demonstrated that social support from friends is associated with lower levels of peer victimization (e.g., Kochenderfer-Ladd & Skinner, 2002). Although the majority of this research was cross-

sectional, the current study goes beyond concurrent examinations to demonstrate a prospective link between positive peer experiences and adaptive coping, lending further support to the proposition that friendship and positive peer relationships may serve as pathways through which healthy development is encouraged. Indeed, one of the most notable implications of this finding is the demonstration that prosocial peer treatment may directly result in decreased social maladjustment by allowing children to access social support within their peer group.

An unexpected result of the current study was the finding that peer victimization is predictive of decreases in retaliatory responding over time. However, this finding is consistent with previous research by Ebata and Moos (1994), which examined the contextual correlates of children's approach and avoidant coping in response to an unspecified negative life stressor. Their study demonstrated that children who report using higher levels of approach coping are less likely to experience chronic stress, more likely to report the presence of social resources, less easily distressed, and demonstrate more sociable characteristics than children who report using higher levels of avoidant coping strategies (Ebata & Moos, 1994). Although potentially aggressive and antisocial in nature, the strategy of retaliatory coping included in the current study represents one form of approach coping, which is characterized by an orientation towards the stressor (Roth & Cohen, 1986). Research on the characteristics of chronic victims of peer harassment has indicated that these children are less likely to demonstrate those qualities associated with approach coping behaviors as indicated by Ebata and Moos (1994), potentially accounting for the decreases in retaliation seen in the current study. Interestingly, the relation between peer victimization and children's use of retaliatory responding was moderated by the

presence of a mutual best friendship within the classroom such that victimization was predictive of decreases in retaliation only for those children with no mutual friendships, as seen in Figure 4. This finding further demonstrates the role of social resources in facilitating children's use of approach coping strategies when dealing with peer harassment.

A number of sex differences in the predictive links between peer treatment and children's coping behavior also emerged. First, victimization was prospectively associated with decreased friend support seeking for girls, but not for boys. Such results are inconsistent with research by Hunter and colleagues (2004) as well as Roecker Phelps (2001), both of whom found that peer victimization was not concurrently associated with support seeking. The predictive associations found demonstrate the need to examine the associations longitudinally and to take into account potential sex differences.

That the link between victimization and decreases in friend support seeking was only significant for girls may also be attributable to the differing content of boys' and girls' victimization experiences. For example, researchers have demonstrated that children often engage in victimization that is aimed at damaging gender-valued goals. As such, whereas boys are more likely than girls to experience overt harassment from peers targeted towards causing physical harm, girls are more often the targets of relational victimization aimed to inflict damage to their social relationships (Crick & Grotpeter, 1995; Crick & Nelson, 2002). Furthermore, girls experience greater social maladjustment as a result of such harassment than boys (Crick & Nelson, 2002) and relational forms of victimization have been more strongly associated with socially relevant emotional distress (e.g., loneliness, social anxiety; Crick & Grotpeter, 1996). To this end, girls who are the victims of peer

harassment may experience greater decreases in the actual or perceived level of friend support within their peer group than boys.

In addition, prosocial treatment from peers was associated with marginal decreases in parent support seeking for girls, but not for boys. Indeed, higher levels of prosocial treatment from peers substantially minimized the gender difference in parent support seeking between boys and girls seen at lower levels of prosocial treatment. Among the different potential sources of social support, seeking assistance from friends is particularly common among girls (Ebata & Moos, 1994; Kochenderfer-Ladd & Skinner, 2002; Visconti & Troop-Gordon, in revision). When this support is available, girls may have a desire to engage in this gender-normative coping strategy. This finding supports the idea of an “compensation model” of social support (Helsen et al., 2000; Meeus, 1994), which suggests that, particularly among girls in middle childhood, support from parents and friends may be competing, representing what is often referred to as the “parent-peer conflict” (Meeus, 1994). Meeus theorizes that, as children transition from middle childhood into early adolescence, support from peers and from parents may be seen as competing forces on a child’s attempt to gain independence and autonomy. Greater support from peers is thought to come at the cost of reduced supportive interactions with parents and may be seen in the shift in dependency from parents to peers that is associated with the transition to early adolescence (Steinberg & Silverberg, 1986). Furthermore, girls have been demonstrated to shift from an additive perspective of social support, such that support from parents and peers can simultaneously be sought and received without threatening feelings of independence or peer group integration, to this compensation model, in which these sources of support are competing, at an earlier age and faster than for boys (Helsen,

Vollebergh, & Meeus, 2000). The specific age group examined in the current study is likely to highlight this gender-age interaction, emphasizing differences in the impact of prosocial peer beliefs on boys' and girls' efforts to seek social support from adults.

Unexpectedly, none of the current study's predictor variables were associated with changes in avoidant responding. This lack of findings may be explained by children using avoidance for different purposes. For example, while some children may use avoidance in conjunction with support seeking, avoiding their aggressors in favor of more prosocial peers, other children may use avoidance to facilitate greater social withdrawal and internalizing distress. Consequently, the predictors of avoidance may vary across children. This indicates the need to further examine what it means for children to "walk away" from an incident of peer victimization and what factors may predict different uses of avoidant behavior.

That antisocial peer beliefs were not predictive of changes in children's coping behaviors is also somewhat surprising. However, these findings can be interpreted in concordance with both control theory (Carver & Scheier, 1998) as well as social information processing theories (e.g., Crick & Dodge, 1994). These theories suggest that existing beliefs or expectations of one's environment, including their beliefs about the behaviors or dispositions about those within their social sphere, serve to guide behavior. However, if there are disparities between these expectations and what is experienced or observed in the environment, this discrepancy will act as a force either in changing behavior or in changing the internal cognitive structures with which the environment is interpreted. Because antisocial peer beliefs are in concordance with the negative peer treatment in response to which children in the current study reported coping strategies,

these beliefs may be considered accurate, potentially priming children to anticipate maltreatment, and, as such, may not create a sense of dissonance that motivates behavioral change. Instead, incidents of peer harassment may serve to confirm children's antisocial peer beliefs thus reinforcing their existing patterns of coping.

On the other hand, for children with prosocial peer beliefs, the peer harassment to which they are responding deviates from their larger social schemas. This dissonance may motivate behavioral change, aimed at correcting this disparity. Specifically, the current study found that prosocial peer beliefs were predictive of decreases in retaliatory responding for boys, but not for girls. Indeed, at high level of prosocial peer beliefs, differences in boys' and girls' use of retaliatory responses were substantially decreased. The sex difference found in this predictive relation may indicate a difference in the pathways through which these disparities are corrected. One force that may serve to exert changes in children's reported behavior are their goals within an incident of peer victimization. The sex differences found between boys and girls in regards to their use of retaliation may reflect additional sex differences in their underlying social goals. Indeed, research examining differences in goals during social conflict has indicated that boys are more likely than girls to report goals of revenge or retaliation (Troop-Gordon & Asher, 2005). However, boys with more prosocial peer beliefs may also develop goals of relationship maintenance, thus hampering their use of retaliation (Troop-Gordon & Asher, 2005), and reducing the differences seen in the goals of boys and girls.

Limitations and Future Directions

There are a few notable limitations in the current study that present promising future directions for the exploration of the development of children's coping behavior.

Although the current study examines the potential for both peer experiences and social cognitions to predict changes in individual coping strategies, it is quite possible that children are utilizing a combination of behavioral responses in an effort to handle instances of victimization. For example, a child may use a combination of support seeking and avoidance by walking away from the aggressor and joining their friends. Indeed, the integration of adaptive strategies (e.g., support seeking from friends) in to the use of potentially maladaptive strategies (e.g., avoidance) may help to buffer children against the consequences of these coping behaviors and even maximize the efficacy of the strategy. To this end, it is important to understand how individual or unique combinations of social experiences and cognitions influence not only specific coping behaviors, but how they may play a role in the development of different profiles of combined coping strategies.

The current study is also limited in its use of a single variable indicator representing both antisocial (e.g., victimization) and prosocial peer treatment. A greater survey of the different types of social stress (e.g., social rejection, friendlessness) would provide greater insight in to the specific social dynamics which influence changes in children's coping behaviors. For example, peer victimization may predict behavioral changes that are different from those predicted by social rejection. Similarly, the different forms of victimization (e.g., physical, verbal, relational), combined in to a single construct in the current study, are associated with some unique adjustment outcomes (Crick & Bigbee, 1998), and, as such, may have the potential to illicit unique changes in children's behavioral coping strategies.

Furthermore, the current study utilizes two different forms of report methods for children's peer experiences, peer- and self-report. It is possible that children's perceptions

of the way they are treated by their peers, as indicated by self-report measures, are differentially predictive of changes in coping behavior when compared to more objective accounts of their peer experiences, such as those provided in peer-report measures. Future research is necessary to elucidate the potential differences in children's perceptions of their peer treatment (e.g., victimization or prosocial treatment) in contrast with accounts of peer treatment using other informant methods as predictors of coping with victimization.

Research in both developmental and clinical psychology have theorized and demonstrated that cognitive processes, such as attributions or expectations, may play a role in mediating the relationship between experiences and behavior (Dodge, 1980; Weiner, 1980). As such, an important future direction is to examine the potential mediating role that peer beliefs may play in the link between peer treatment and coping behaviors (Ladd & Troop-Gordon, 2003; Troop-Gordon & Ladd, 2005). For example, it is possible that the link between prosocial peer treatment and increases in friend support seeking demonstrated in the current study may have been mediated by increases in prosocial peer beliefs such that those children who are treated kindly by their peers come to see their classmates in general as being more likely to provide support and, as such, may become more likely to seek support from them when faced with social conflict. While the current study provided groundwork for studying the prospective links between peer experiences, as well as social cognitions, and children's coping in response to social conflict, research investigating mediated relations would provide greater insight in to the formative processes of coping strategies, allowing intervention work to specifically target the cognitive processes that may lead to behavioral change.

Finally, the current study uses a somewhat vague evaluation of children's support

seeking. Asking children how often they seek support generally from parents, teachers, or friends allows us to measure a broad and inclusive construct of seeking social support. However, children may seek different forms of social support (e.g., emotional, instrumental) and the forms of support desired may vary as a function of from whom the support is being sought. Furthermore, research has demonstrated that children may experience differing consequences as a result of the support that is received. For example, studies indicate that receiving emotional support from others, particularly for girls, may be associated with greater maladjustment than instrumental support, which is aimed at resolving the problem (Billings & Moos, 1984; Rose, 2002). Children's seeking of different forms of social support from different sources (e.g., parents, teachers, or friends) may account for the differences in those factors which predict these behaviors as demonstrated in the current study as well as the potential benefits and consequences associated with these coping behaviors (Visconti & Troop-Gordon, in revision). As such, it is an important future direction to examine both the predictors of seeking qualitatively different forms of social support, as well as the outcomes associated with these different forms of support specifically within the context of coping with peer victimization.

Conclusion

Children's coping behaviors in response to peer victimization has significant and differential relations with their well-being (Kochenderfer-Ladd & Skinner, 2002; Visconti & Troop-Gordon, in revision). As such, it is important to gain a greater level of insight into the specific factors which may influence the development of coping strategies. To this end, the current study examined the prospective relations between antisocial and prosocial peer treatment, as well as antisocial and prosocial peer beliefs, and changes in children's coping

with victimization, as well as how these relations may vary as a function of children's sex. Specifically, results indicated that antisocial peers experiences were associated with greater maladaptive coping for girls but also predict decreases in retaliatory responding, particularly for children with no mutual friendships in their classroom. Prosocial treatment from peers was predictive of increased use in support seeking from friends and, for girls, diminished reliance on parents as a source of social support. Finally, although no prospective relations were found between antisocial peer beliefs and changes in children's coping behavior, prosocial peer beliefs predicted decreases in retaliation for boys, potentially indicating the important role positive social cognitions in reducing aggressive coping strategies. By demonstrating these relations prospectively, the current study may inform future research in both the fields of developmental and clinical psychology as to how specific coping behaviors are influenced and develop over time.

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APPENDIX A. SELF-REPORT MEASURE OF CHILDREN'S
COPING WITH PEER VICTIMIZATION

What I Would Do

Please mark the box that shows how often you do these things.

When kids are being mean to me. ..	Never	Sometimes	Most of the time	Every time
1. I act like nothing happened.				
2. I walk away from the kid who was being mean.				
3. I hurt the kid back.				
4. I get help from a teacher.				
5. I ignore the kid who was mean to me.				
6. I ask a friend what I should do.				
7. I tell my mom or dad (or another adult at home) what happened.				
8. I stay away from the kids who were mean.				
9. I do something mean right back to them.				
10. I get help from a friend.				
11. I tell the teacher what happened.				
12. I yell at the kid who is being mean.				

13. I tell the mean kids I don't care.				
14. I ask my mom or dad (or another adult at home) what to do.				
15. I hurt the kid who was mean to me.				
16. I tell a friend what happened.				
17. I get help from my mom or dad.				
18. I ask the teacher what I should do.				
19. I talk to a friend about it.				

APPENDIX B. PEER-REPORT MEASURE OF PEER VICTIMIZATION

How often does _____ get picked on by other kids?

	Never	Once or twice	Some-times	A lot
Adam Apple				
Barbara Bannana				
Carla Cantelope				
Danny Dandelion				
Ellen Eggplant				
Gregory Grape				
Helen Honeydew				
Kyla Kiwi				
Louis Lemon				
Marla Mango				
Norton Nectarine				
Olivia Orange				
Peter Pineapple				
Rodney Raspberry				
Steve Strawberry				
Tanya Tangerine				
Wendy Watermelon				

How often does _____ get hit or pushed at school?

	Never	Once or twice	Some- times	A lot
Adam Apple				
Barbara Bannana				
Carla Cantelope				
Danny Dandelion				
Ellen Eggplant				
Gregory Grape				
Helen Honeydew				
Kyla Kiwi				
Louis Lemon				
Marla Mango				
Norton Nectarine				
Olivia Orange				
Peter Pineapple				
Rodney Raspberry				
Steve Strawberry				
Tanya Tangerine				
Wendy Watermelon				

How often do kids call _____ bad names or say other mean things to him or her?

	Never	Once or twice	Sometimes	A lot
Adam Apple				
Barbara Bannana				
Carla Cantelope				
Danny Dandelion				
Ellen Eggplant				
Gregory Grape				
Helen Honeydew				
Kyla Kiwi				
Louis Lemon				
Marla Mango				
Norton Nectarine				
Olivia Orange				
Peter Pineapple				
Rodney Raspberry				
Steve Strawberry				
Tanya Tangerine				
Wendy Watermelon				

How often does _____ get left out of things that kids are doing (kids don't let him or her play with them)?

	Never	Once or twice	Some-times	A lot
Adam Apple				
Barbara Bannana				
Carla Cantelope				
Danny Dandelion				
Ellen Eggplant				
Gregory Grape				
Helen Honeydew				
Kyla Kiwi				
Louis Lemon				
Marla Mango				
Norton Nectarine				
Olivia Orange				
Peter Pineapple				
Rodney Raspberry				
Steve Strawberry				
Tanya Tangerine				
Wendy Watermelon				

APPENDIX C. SELF-REPORT MEASURE OF PROSOCIAL PEER TREATMENT

The Way Kids Are

How much do the kids in your class...	Never	A Little	Some-times	A Lot
1. act friendly to you?				
4. share things with you?				
5. tell you that you are good at doing things?				
6. let you play with them?				
7. cheer you up if you feel sad?				
8. help you if you are being picked on by other kids?				

APPENDIX D. SELF-REPORT MEASURE OF PEER BELIEFS

What Other Kids Are Like

How much do the kids in your class...	Never	A little	Some-times	A lot
1. get angry easily and start fights?				
2. share and don't try to keep everything for themselves?				
3. boss other kids around?				
4. try to be fair and play by the rules?				
5. blame someone else when they get in trouble?				
6. care a lot about other kids and try not to hurt their feelings?				
7. like to act mean and hurt other kids' feelings?				
8. help other kids when they need it?				
9. like to pick on other kids and tease them?				
10. try to be friendly and nice to other kids?				

APPENDIX E. PEER NOMINATION MEASURES OF CHILDREN'S
RECIPROCAL FRIENDSHIPS

Friends in my Class

Directions: From the list below, circle the names of your best friends (up to 5 names).

It is okay if you do not circle any names on this page. You may not feel that you have a very good friend in your class or your friend(s) is(are) in another class and is(are) not listed below. So, it is okay if you have fewer names circled than you have friends.

You may like everyone in your class and consider many of them to be your friends. But, please only circle the names of the *five* kids who are your closest and best friends.

Adam Apple

Barbara Bannana

Carla Cantelope

Danny Dandelion

Ellen Eggplant

Gregory Grape

Helen Honeydew

Kyla Kiwi

Louis Lemon

Marla Mango

Norton Nectarine

Olivia Orange

Peter Pineapple