SOCIAL PROBLEM-SOLVING AND EMOTION PROCESSES AMONG EARLY ADOLESCENT BYSTANDERS IN HYPOTHETICAL BULLYING SITUATIONS

by

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ABSTRACT

In an effort to understand bystander behavior, the purpose of this study was to examine the role of emotions and peer relationships on early adolescent bystanders' social problem-solving. Students in grades 6 and 7 ($N = 349$) read a series of hypothetical bullying vignettes and were asked to imagine that what happens to the victim in each vignette happens to a self-nominated friend or non-friend. Students were then asked about their feelings (i.e., initial emotion, initial emotional display, level of emotion, intention to dissemble), strategies, and goals. Research questions considered links between strategies and goals, whether social problem-solving and emotion processes varied as a function of gender and friendship status with the victim, and links between social problem-solving and emotion processes. Results of canonical correlation showed that bystanders who endorsed strategies likely to perpetuate bullying were less motivated to pursue goals aimed at assisting the victim, giving higher ratings instead to self-focused and anti-social goals. With few exceptions, a series of 2 X 2 (gender [boys, girls] X friendship status [friend versus non-friend]) repeated measures analyses of variance (ANOVA) highlighted that bystanders' strategies and goals varied as a function of gender and friendship status with the victim. Girls generally favored prosocial strategies and goals more than boys; intervention was more likely on behalf of friends. A series of gender X friendship status repeated measures ANOVAs examining bystanders' emotion processes showed that friendship status was important. For instance, bystanders indicated that they would experience more anger and would be more willing to show their anger in a hypothetical bullying situation involving a bullied friend. Finally, results of a series of hierarchical multiple regressions showed that the degree to which bystanders thought they would experience different emotions emerged as a strong

predictor of individual strategies and goals in hypothetical situations, particularly when the situation involved a non-friend. Findings highlight the importance of emotions, peer relationships, and gender as related to bystander social problem-solving in hypothetical situations with implications for increasing peer intervention.

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CHAPTER I

Introduction

Observational studies in the mid- to late nineties provided irrefutable evidence that bullying occurs with alarming regularity in Canadian schools, both on the playground (once every 7 to 13 minutes) and in the classroom (once every 24 to 25 minutes) (Craig & Pepler, 1997; Craig, Pepler, & Atlas, 2000). To be clear, bullying is a *subset* of aggressive behavior distinct from other aggressive acts such as fighting because it involves a power differential between the perpetrator and the victim (whether physical or psychological) and the intention to harm is enacted repeatedly over time (Olweus, 1991, 1999; Smith, Cowie, Olafsson, & Liefooghe, 2002; Smith & Morita, 1999). An egregious form of aggression because, by definition, it happens on more than one occasion, bullying remains largely an "underground" activity (Vaillancourt, Hymel, & McDougall, 2003) occurring among the general student population. However, observational studies have also shown that in most cases (i.e., 85% to 88% of incidents), bullying occurs in a *social* context in which peers are present (Atlas & Pepler, 1998; O'Connell, Pepler, & Craig, 1999), confirming that students are well aware of bullying problems (Whitney & Smith, 1993). As researchers have increasingly come to view bullying as a group phenomenon (e.g., Bukowski & Sippola, 2001), understanding the role that peers play in bullying has become an important area of research (for an overview see Salmivalli, 2001; see also Pellegrini & Long, 2004; Rodkin & Hodges, 2003).

Research conducted over the past ten years has yielded informative yet somewhat troubling findings, suggesting that not only are bystanders aware of bullying, they can be both actively and passively involved. For instance, when asked directly about their experiences as

witnesses to bullying, Rocke Henderson, Hymel, Bonanno, and Davidson (2002), found that 42% of junior secondary students indicated that they observed bullying frequently, at least once a week or more. Only a small percentage of students (5%) reported that they had *not* observed bullying. Moreover, consistent with observational studies which show that peers intervene only 11% to 25% of the time (O'Connell et al., 1999; Pepler & Craig, 1995), when asked how often they try to intervene, 23% of students admitted that they *never* try to help; only 8% reported that they regularly tried to help (once or more a week).

Studies of peer perceptions paint a similar picture. Results of several studies by Salmivalli and colleagues indicate that, while many students are viewed by the peer group as being involved in bully-victim situations as bystanders, some tend to respond in ways that perpetuate bullying, others are oblivious or choose not to become involved, and relatively few are likely to help victims (Salmivalli, Huttuenen, & Lagerspetz, 1997; Salmivalli, Lagerspetz, Bjorkqvist, Osterman, & Kaukiainen 1996; Salmivalli, Lappalainen, & Lagerspetz, 1998). Among sixth graders, for instance, Salmivalli and colleagues have shown that while bullying incidents appear to be centered around a small group of children who target a relatively small number of victims (*bullies*, 8%; *victims*, 12%), just over a quarter of students are viewed by peers as either assisting the bully in some way (*assistants*, 7%) or encouraging the bully by laughing or joining in (*reinforcers*, 20%). A significant portion of students (24%) tend to be viewed as removed from or not aware of bullying situations, and as being likely to avoid bullying situations (*outsiders*). Sadly, only a small portion of children (17%) are classified by peers as *defenders* who come to the aide of victims.

Student reasons for not intervening reflect a range of feelings and beliefs. For instance, Rocke Henderson and colleagues (2002) found that many students (30% to 35%) report that they

are "too frightened to intervene," that there is "nothing they can do to stop it," and that it is generally "better not to get involved." Furthermore, the majority of students surveyed indicated that it is not "their responsibility to intervene or do something." Given these findings, it is not surprising that peers tend to intervene so infrequently.

Although many researchers view peers as a potentially powerful resource for reducing bullying (e.g., Hazler, 1996), and despite the fact that most anti-bullying intervention programs include a "peer intervention" component, we presently lack a clear understanding of the role that peers play in maintaining bullying problems. In an effort to clarify how peers are involved, factors that might help to explain bystanders' reluctance to intervene on behalf of victims were of interest in the present study. The literature points to the importance of certain cognitive, affective, and contextual factors.

Aggression and Social Problem-Solving

Social information processing models of aggression have provided important insights into the social-cognitive processes and approaches to social problem-solving that children enlist (for an overview see Coie & Dodge, 1998; Rubin, Bukowski, & Parker, 1998). Within this framework, a child's capacity for accurately and effectively perceiving, interpreting, and reacting to challenging social situations is relevant. Crick and Dodge's (1994, 1999) social information processing model describes a series of steps (i.e., encoding and interpreting social cues, selecting a desired outcome or goal, generating response strategies, evaluating and choosing a response strategy, behavioral enactment of a final response strategy) that help to explain how children arrive at particular behavioral responses, whether prosocial, socially responsible or aggressive. Social problem-solving, which refers specifically to goal and strategy selection in addressing a given social situation or problem, is considered an integral component of social information

processing and has been used to study children's behavioral responses and underlying motivations in a variety of social contexts and conditions (e.g., Chung & Asher, 1996; Erdley & Asher, 1997; Hopmeyer & Asher, 1997; Rose & Asher 1999; Rose & Asher, 2004; Troop-Gordon & Asher, 2005).

In research on bullying, only a handful of studies have examined social information processing. Comparing children in peer-nominated roles (e.g., bullies, victims, bully-victims, not involved students; see Camodeca, Goossens, Schuengel, & Terwogt, 2003), these studies have looked almost exclusively at social information processing in response to ambiguous provocation scenarios (i.e., situations in which the intention or motivation of others is unclear; see Camodeca & Goossens 2005a; Warden & Mackinnon, 2003). Although it has been suspected that bystanders tend not to intervene because they lack appropriate and effective strategies (e.g., O'Connell et al., 1999), very little information is available about bystanders' social problem-solving .

In one of only two studies to examine directly how bystanders problem-solve in *bullying* situations, Rocke Henderson (2002; Rocke Henderson & Hymel, 2003) interviewed 140 students in grades six and seven about how they would respond to hypothetical situations involving physical, verbal, and relational bullying. For each incident, students evaluated how easy or hard it would be to deal with the situation (self-efficacy) as well as what they would do (strategies) and why (goals). Overall, results indicated that students were aware of a variety of strategies with the potential to stop the bullying such as telling or getting help from an adult (adult involvement, endorsed by 68% of students), recruiting the assistance of friends (peer involvement, endorsed by 64% of students), saying things to persuade the bully to stop (talking to bully, endorsed by 86% of students), getting information about the situation from others (gain

information, endorsed by 65% of students), comforting or being nice to the victim (prosocial to victim, endorsed by 90% of students), standing up for or defending the victim (direct intervention, endorsed by 92% of students), and even being hostile toward or retaliating against the bully (hostility/retaliation, endorsed by 38% of students). Students also proposed strategies likely to perpetuate the problem such as laughing or pretending to go along with the bullying (enabling, endorsed by 39% of students) and ignoring the situation or doing nothing (inaction, endorsed by 68% of students). Despite many possible options, each student only came up with one or two strategies per situation. Moreover, although nearly all students proposed strategies that benefited the victim at least once, over one third also proposed enabling and hostility/retaliation strategies at least once.

Camodeca and Goossens (2005b) examined students' ratings of the effectiveness of various bystander response strategies including assertiveness (e.g., asking the bully why he/she is doing it or telling the bully to stop), nonchalance (e.g., "doing nothing"), and retaliation (e.g., responding in kind by hitting or pushing back) in stopping physical, verbal, and relational bullying. When asked to imagine themselves in each of three different roles (i.e., victim, bully, or witness), they found that, regardless of peer-nominated bullying role (i.e., bully, defender, outsider, victim, not involved), assertiveness was viewed most frequently as an effective strategy. Imagining themselves in the role of both the victim and the witness, bullies were more inclined to view retaliation as a helpful strategy as compared to other students. Among victims, defenders, outsiders, and students viewed as uninvolved, nonchalance and assertiveness were seen as effective ways of stopping bullying, particularly when these students imagined being the bully.

Together, these studies suggest that bystanders are aware of a number of options for addressing bullying and have opinions about what is likely to be effective that depend on one's experience with bullying. Research is needed, however, on the processes and factors that influence which strategies bystanders select and implement.

Preliminary evidence suggests that bystanders may be motivated to use certain strategies in bullying situations in order to accomplish particular goals. Rocke Henderson (2002; Rocke Henderson & Hymel, 2003) found that in response to hypothetical bullying situations, bystanders generated goals reflecting self-serving, prosocial, and hostile motives, including wanting to get the harassment to stop, to avoid getting involved, to help the victim, to be prosocial, to protect their own interests (self-interest), and to get back at the bully (negative outcomes). Findings also reflected specific links between student-reported strategies and goals. For example, rather than responding by getting help from an adult or taking direct action in support of the victim, students interested in getting the harassment to stop were more likely to do so by trying to persuade the bully through verbal means. When their aim was to help the victim, bystanders were most likely to respond by being prosocial towards the victim which may or may not improve the outcome. However, when concerned about avoiding involvement, bystanders were more inclined to ignore or avoid the situation altogether and less likely to try to achieve this goal by watching, laughing, or joining in. Finally, hostile behavior was a strategy bystanders appeared to endorse rather selectively in order to get back at the bully.

Although the studies cited above have begun to illuminate our understanding of how bystanders reason about bullying problems, there is clearly a need for further study. A primary objective of the present study was to expand a sparse literature examining social problem-solving among early adolescent bystanders in bullying situations by considering the role of

emotions. Although believed to be important, the links between emotion and aggression are poorly understood and have not been well researched.

Aggression and Emotions

Aggression researchers have recently been urged to find ways of tapping children's emotional experiences (Arsenio & Lemerise, 2001; Lemerise & Arsenio, 2000). Arsenio and Lemerise argue that current conceptualizations of how children reason about social problems, typically studied using social information processing frameworks, do not consider emotions and emotion processes. As a result, our understanding of the processes involved in how children deal with social problems has been incomplete and imprecise. Similarly, Crick and Dodge (1994, 1999) acknowledge that together, emotions *and* cognition play an instrumental role in determining a child's behavior. In fact, Dodge (1991) has maintained that emotions and social information processing are inextricably linked:

> My thesis does not posit a separate emotional system that is distinct from the information-processing system. . . Likewise, I do not believe that some information processing is emotionally laden and other processing is nonemotional. Rather. . . I propose that all information processing is emotional, in that emotion is the energy level that drives, organizes, amplifies, and attenuates cognitive activity and in turn is the experience and expression of this activity. (p. 159)

However, the exact nature of the role of emotions and emotional processes is not clearly articulated in their model (Arsenio & Lemerise, 2001; Lemerise & Arsenio, 2000). Others have been critical of the omission of emotion-related processes within the broader peer literature (e.g., Denham, von Salisch, Olthof, Kochanoff, & Caverly, 2002).

As noted earlier, Rocke Henderson (2002; Rocke Henderson & Hymel, 2003) identified bystanders' strategies and goals for dealing with hypothetical bullying situations. In individual interviews used in their study to probe for students' social problem-solving (i.e., goals and strategies), they found that many students spontaneously spoke about how the situation would make them feel, suggesting that their emotional experience was indeed, very salient. In order to redress the need to understand how emotions contribute to social information processing, a second goal of the present study was to examine how emotions contribute to early adolescents reasoning about bullying conflicts that they observe among their peers. To this end, aspects of early adolescent bystanders' emotion processing were considered in the present study, including their initial emotional response (i.e., initial emotion; initial emotional display), ratings of their emotions (level of emotion), ratings of their intention to show their emotions (intention to dissemble), and the degree to which they would be prepared to show emotions to the extent that they experienced emotions (level of dissemblance).

The Influence of Peer Relationships

In general, research has demonstrated that responses to and interpretations of peer behavior vary depending on interpersonal relationships. For example, when presented with hypothetical scenarios involving liked versus disliked peers, Hymel (1986) found that the behavior (both positive and negative) of liked peers was viewed more positively than that of disliked peers. Lemerise and Arsenio (2000) have argued that when faced with a conflict involving a peer, children's social information processing, and, in particular, their goals, are likely to be influenced by their relationships with others. They suggest that in an effort to avoid doing anything to damage a relationship with a friend, children are generally more motivated to

pursue prosocial goals. Without the emotional connection facilitated by a friendship, children may be more inclined to pursue less caring and even anti-social goals.

Recent survey data suggest that students' responses to bullying may depend on the relationship with the student being victimized (Rocke Henderson, et al., 2002). Specifically, when asked to specify when they *should* try to help someone who is being bullied, between 92% and 95% of students indicated that they should help when the victim is friend or best friend. In contrast, 42% felt that they should help when someone they did not know well was being bullied and, only 25% indicated that they should help when someone they did not like was being bullied. Thus, the status of the relationship between the victim and the bystander (i.e., whether or not they are friends) may be an important determinant of whether or not a bystander will intervene. Accordingly, a final aim of the present study was to examine the influence of friendship status with the victim on bystanders' social-cognitive and emotion processes.

Aim of Research

The overall objective of the present study was to examine early adolescent bystanders' social problem-solving and emotion processes in hypothetical bullying situations. Guided by Crick and Dodge's (1994, 1999) social information processing model, which describes a series of social-cognitive steps through which children figure out how to navigate social conflict, the present study examined early adolescent bystanders' strategy and goal selection (i.e., what they would *do* and *why*). Given arguments that the role of emotions in the social information processing needs to be more fully articulated (Arsenio & Lemerise, 2001; Lemerise & Arsenio, 2000), the present study also examined the extent to which emotion processes influenced bystanders' social problem-solving. Finally, in light of evidence that children's behavior can

vary considerably depending on their relationship with the person involved (e.g., Hymel, 1986), the present study also evaluated the extent that bystanders' social-cognitive and emotional responses depended on whether victims were either a friend or a non-friend. Accordingly, research questions posed in the present study considered the links between bystanders' strategies and goals, the influence of friendship status (and gender) on bystanders' social problem-solving (strategy and goal selection) and emotion processes, and the links among emotion processes and social problem-solving, which have yet to be established but were expected to be important to explaining how early adolescents deal with social problems such as bullying.

CHAPTER II

Review of the Literature

Drawing on research using a variety of methodologies including naturalistic observations, peer assessments, and self-reports, the present review first considers what is currently understood about the role of bystanders in bullying. Studies examining social problem-solving and bullying are discussed next, followed by a review of the literature on emotion processes and emotion processes as related to bullying. Finally, research exploring the significance of children's friendships in understanding how peers respond to bullying is described.

Students as Witnesses to Bullying

Observational research has demonstrated that peers are very often present when bullying takes place (Atlas & Pepler, 1998; Craig and Pepler, 1995; Tapper & Boulton, 2005). Specifically, in the majority of playground bullying episodes observed (54%), peer bystanders were onlookers in the situation and, in nearly 21% of the episodes, peers joined in with the bullying, either physically or verbally (O'Connell et al., 1999). In the classroom, Atlas and Pepler (1998) showed that although peers were present as observers in 85% of bullying episodes, they remained onlookers 13% of the time. However, in about 27% of the episodes, peers were involved in a parallel activity (i.e., playing or working in close proximity to the situation) and 52% of the time they were involved in a joint activity (i.e., either playing or working). Most disconcerting is the fact that in nearly one-third of the episodes (32%), peers appeared to take an active part in the bullying. As previously noted, across studies, peers intervened in 11% to 25% of episodes.

In related research conducted in the UK, Tapper and Boulton (2005) observed the behavior of victims and the peer group in response to naturally occurring playground incidents involving aggression. Of relevance to the current study, overall, peers were observed to respond to acts of aggression most often by not reacting or changing their behavior (*no response,* observed 39% of the time) or by agreeing with, justifying, or joining the aggressor in nearly a quarter of episodes (*support aggressor,* 24%*)*. To a lesser extent, peers also responded by supporting the victim 9% of the time, smiling or laughing 7% of the time, making an attempt at resolving the situation 6% of the time, and asking a question related to the aggressive act 3% of the time.

Further evidence that children are aware but reluctant to intervene in bullying comes from studies using self-reports. In separate studies conducted in Canada and Australia nearly all children (92% to 95%) report having observed bullying (Rigby & Johnson, 2006; Rocke Henderson et al., 2002). Unfortunately, a significant portion of students (14% to 25%) admitted that they had never intervened on behalf of a victim. Thus, across countries, children are often witnesses of peer bullying, yet their willingness to respond on behalf of victims is quite limited.

Children also seem to be well aware of how their peers respond to bullying. Using a peer nomination methodology, Salmivalli and colleagues (Salmivalli et al., 1996; 1997; 1998) have shown that the vast majority of children are viewed by peers as falling into one of six "participant roles" in bully-victim situations. Apart from those classified as bullies or victims, children can be identified by their peers as *assistants* (i.e., students who assist the bully or join in), *reinforcers* (i.e., students who encourage the bully by laughing or joining in), *defenders* (i.e., children who help victims) or *outsiders* (i.e., children who are removed from, avoid, or not aware of bullying situations). Using this approach, results from several studies have confirmed that

children of different ages can be reliably classified as being involved in one of these six roles (e.g., Menesini & Gini, 2000; Salmivalli, et al., 1996; Sutton & Smith, 1999), with comparable numbers of students identified as outsiders (26% to 29%), reinforcers or assistants (24% to 32%), and defenders (17% to 20%) (Salmivalli, 2001).

Studies have also shown a consistent pattern of gender differences among bystander-related participant roles (Goossens, Olthof, & Dekker, 2006; Salmivalli & Voeten, 2004). Whereas boys more often are nominated as being involved as reinforcers and assistants to the bully, girls are more likely to be viewed by peers as being defenders or outsiders. That girls disproportionately represent defenders is problematic given research that suggests that boys tend to be present and involved in bullying to a greater extent than girls, decreasing the overall likelihood of peer intervention (Hawkins, Pepler, & Craig, 2001). As Hawkins and colleagues suggest, given that boys and girls may be inclined to intervene under different circumstances, it becomes important to consider gender and to understand both individual and contextual factors likely to lead to increased intervention on the part of boys versus girls.

Consistent with results from observational and self-report studies then, most children tend to be viewed by the peer group as being involved as bystanders, some of whom tend to respond in ways that perpetuate bullying, while others are oblivious or choose not to become involved. Unfortunately, only a small portion of children have a reputation for standing up for victims. Research considered next suggests certain characteristics that may differentiate bystanders who intervene versus those who do not.

Using naturalistic observations, Hawkins and colleagues (2001) examined the behavior of students between the ages of 6 and 12 who attempted to intervene in bullying episodes. Bystanders' responses were observed as physically, verbally, and socially aggressive or

assertive. Overall, peers used verbal assertion (29%) and physical aggression (21%) most frequently. Gender differences emerged such that girls favored the use of verbal assertion (48%) followed by physical aggression (21%). By comparison, boys used physical aggression (22%), verbal assertion (19%), and a combination of verbal and physical assertion (19%) each to a similar degree. Hawkins and colleagues also examined the degree to which peers' attempts at intervening were successful and found that, generally, over half of the attempts at intervention (57%) stopped the bullying. Although this research indicates that peers can successfully put an immediate stop to bullying when they try to intervene, it is not clear why so few children tend to take action. Self-report data suggest that students hold contradictory attitudes and beliefs that may well reduce the likelihood of intervening.

Studies conducted in several countries have found that the majority of children believe that bystanders should try to intervene in bullying situations. For example, Kanetsuna and Smith (2002) found that 70% of students surveyed in Japan and in the UK reported that bystanders *should* intervene but fewer than 30% of students believed that bystanders actually *try* to intervene. Similarly, in a survey of over 8,000 students in Italy and England between the ages of 8 and 16, Menesini et al. (1997) found that although most students professed support for victims and opposition and disapproval of bullies, they believed that teachers were far more likely than peers to intervene in bullying.

Children's beliefs about how bystanders should respond to bullying may vary depending on their experiences with bullying. In a study involving students in Japan and the UK, Kanetsuna and colleagues (Kanetsuna, Smith, & Morita, 2006) reported that the majority of students in both Japan and the UK indicated that bystanders should try to intervene by taking direct action on behalf of the victim (i.e., fight back, argue with the bully, tell the bully to stop).

In a survey involving Canadian students, Rocke Henderson and colleagues (Rocke Henderson, Bonanno, & Hymel, 2005) demonstrated that relative to students who reported being involved as either victims or bullies, uninvolved students reported that they *should not* watch, or "walk away and forget about it" when bullying occurs. Rather, uninvolved students were among those most likely to think that they *should* tell an adult or try to intervene either by getting the bully to stop on their own or with the assistance of peers. However, Kanetsuna and Smith (2002) have found that the majority of children think that bystanders do not intervene out of fear of becoming the bully's next target. In addition to feeling afraid, Rocke Henderson and colleagues (2002) have found that some students may be reluctant to intervene because they do not believe that they would be effective at stopping the bullying, have decided that it may be better not to get involved, and/or believe that it is not their responsibility to intervene.

In an attempt to identify factors that might contribute to students' *willingness* to intervene in bullying that they witness, Rigby and Johnson (2006) found that, beyond demographic variables, self-reported involvement in bullying (as a bully, victim, or frequency of intervening), endorsement of positive attitudes towards victims, believing that parents expect them to assist a victim, and believing that peers expect them to assist a victim contributed to the prediction of students' intention to intervene, accounting for 50% of the total variance explained. In other words, being a primary student, having intervened more frequently in the past, endorsing positive attitudes toward victims, and believing that peers expect you to intervene were significant predictors of students' intention to intervene.

On the one hand, peers generally do believe that they should do something when bullying occurs and some children even show compassion for victims and report that they have assisted victims in the past. At the same time, a significant portion of students appear to hold attitudes

and beliefs that interfere with the likelihood that they will intervene on behalf of a victim. These findings highlight the importance of examining other factors that might explain bystanders' responses to bullying.

Several studies have examined a variety of factors – empathy, self-efficacy, social status, moral disengagement – that may contribute to the likelihood of bystander intervention. The capacity for empathy, for instance, is thought to underlie prosocial behavior and serve as a buffer against aggression (Cohen & Strayer, 1996; Eisenberg & Miller, 1987; Miller & Eisenberg, 1988; Schonert-Reichl, 1993). In the area of bullying, results of several studies have demonstrated a negative relationship between empathy and bullying behavior, especially among boys (see Hymel, Schonert-Reichl, Bonanno, Vaillancourt, & Rocke Henderson, 2010, for a review). In general, more bullying is seen among boys who are lower in empathy. A handful of recent studies have considered the degree to which empathy might influence children's willingness to *intervene* when they witness bullying.

Warden and Mackinnon (2003) interviewed 131 9- to 12-year-olds in order to examine the sociometric status, empathy, and social problem-solving of children identified by peers as bullies, victims, or prosocial children. They found that, as compared with bullies, prosocial children were higher on self-reported empathy and that girls were more likely than boys to be prosocial. Likewise, using a participant role approach, Gini, Albiero, Benelli, and Altoe (2007) distinguished peer-nominations for pro-bullying behavior versus defender behavior and found that pro-bullying behavior was associated with low levels of empathy, but defending behaviors were associated with higher empathy but only among boys. These findings did not hold for girls despite the fact that girls reported higher empathy as well as lower levels of pro-bullying behavior and higher levels of defender behavior as evaluated by peers. Menesini and colleagues

(1997) found that although girls reported being more upset in response to bullying and expressed more empathy towards victims, they were *less* likely than boys to intervene. Using a slightly younger sample, Nickerson, Mele, and Princiotta (2008) found that, although gender *did not* predict self-reported status as either a defender or an outsider, empathy contributed significantly to the prediction of students' roles as defenders or outsiders, with lower empathy among the latter.

In a study examining the role of empathy and social self-efficacy in explaining bystander behavior, Gini and colleagues (Gini, Albiero, Benelli, & Altoe, 2008) found that both defending and outsider behavior were associated with higher levels of empathy. Thus, it does not appear to be a *lack* of empathy per se that explains outsiders "passive" response to bullying. Interestingly, defending behavior was positively associated with higher social self-efficacy suggesting that defenders are more likely to perceive themselves as being effective in social situations and in dealing with interpersonal relationships. In contrast, outsider behavior was associated with lower social self-efficacy suggesting that bystanders who do little else but observe may not intervene as they see themselves as being unlikely to have a positive impact in social situations.

Consistent with the notion that witnesses are more likely to defend peers who are bullied if they have higher self-efficacy (Gini et al., 2008), a recent study by Caravita, Di Blasio, and Salmivalli (2009) identified social preference (i.e., being liked) and perceived popularity as being positively associated with defending behavior. In other words, defenders, who appeared to be higher on social status, tended to be both well-liked and popular among their peers. An association between empathy and defending was also found but only for boys who were rated as being well-liked.

Taken together, these studies suggest that, although gender and empathy may not reliably distinguish defenders from outsiders, perhaps self-efficacy and social status do. Unfortunately, it may be that only a small proportion of students have both the support of the peer group and the confidence in their own capacity to intervene successfully on behalf of victims.

Another consideration in research on the factors that underlie bystander behavior is moral disengagement. According to Bandura's theory of moral agency (Bandura,1999; 2002; Bandura, Caprara, Barbaranelli, Pastorelli, & Regalia; 2001), moral disengagement involves social-cognitive processes that inhibit moral behavior and enable people to participate in harmful behavior towards others. Recent research considering the role of moral disengagement on bystander behavior (see Hymel, Schonert-Reichl, Bonnano, Vaillancourt, & Rocke Henderson, 2010, for a review) indicates that children who intervene may be lower on moral disengagement relative to students who implicitly and explicitly condone bullying. For example, in a study of participant roles in bullying among Italian youth, Gini (2006) found that students who were viewed by peers as adopting "aggressive" roles (i.e., bully, reinforcer, assistant) showed greater moral disengagement whereas defenders were the least morally disengaged and also demonstrated good theory of mind (i.e., the ability to reason about others' cognitions). Similarly, among Australian youth in grades 7 to 10, Barchia and Bussey (2007) found greater moral disengagement was associated with more reported bullying as well as fewer efforts to intervene on behalf of victims.

These findings suggest that to some degree at least, we can distinguish bystanders and their responses on the basis of characteristics such as gender, attitudes, empathy, social self-efficacy, and social status. However, what may be equally important is whether children, as Craig and colleagues (Craig et al., 2000) have speculated, lack appropriate and effective

strategies for intervening in bullying situations. An emerging literature suggests that it may be useful to study bystander's strategies from a social problem-solving perspective.

Social Problem-Solving and Bullying

Early research on social information processing focused on aggressive children (see Crick & Dodge, 1996; Dodge & Coie, 1987; Dodge & Crick, 1990). For instance, it has been demonstrated that when asked to imagine being faced with a conflict in which the intent of the other children is ambiguous (ambiguous provocation), aggressive children are more likely than non-aggressive children (i.e., children who tend to withdraw and those who tend to be problem-solvers) to endorse goals related to retaliation (Erdley & Asher, 1998). However, until recently, few studies have considered the social-cognitive processes involved in bullying. Of relevance to the present study were a small number of studies exploring the social problem-solving of bystanders.

Warden and Mackinnon (2003) presented bullies, victims, and prosocial children (as identified by peers) with three hypothetical scenarios in which peers were involved in potentially difficult or "awkward" social situations. For each scenario, participants were asked to identify possible strategies (strategies the target in the situation might use), preferred strategies (strategies they themselves would use), and the potential pitfalls or advantages of their preferred strategy (perceived consequences). Possible and preferred strategies were categorized as directly assertive (i.e., "addressing the problem constructively"), indirectly assertive (i.e., "addressing the problem more cautiously or circuitously"), passive (i.e., avoiding or ignoring the problem) or aggressive (i.e., either verbal or physical). Prosocial children (who, as bystanders, are arguably the most likely to intervene) and victims were more likely than bullies to generate directly assertive solutions as possible strategies. Consistent with Camodeca and Goossens'(2005b)

work which suggests that bystanders view assertiveness (and nonchalance) as the most effective way of dealing with bullying, prosocial children also preferred directly assertive strategies to a greater extent than either bullies or victims. Moreover, prosocial children were more likely than bullies to propose negative consequences suggesting that prosocial children may be more sensitive to the potential for negative outcomes.

In actual bullying situations, however, the intent of the bully is unlikely to be ambiguous given that, by definition, such behavior is intentionally harmful and enacted repeatedly. Furthermore, not only are peers well aware of bullying that occurs in their midst, peers also appear to be fairly adept at identifying the aggressors and the targets. It stands to reason then that children's social problem-solving in "socially awkward" or ambiguous situations may not correspond with their problem-solving in bullying situations.

In perhaps the only known study to examine bystanders' social problem-solving in the context of bullying situations, Rocke Henderson (2002; Rocke Henderson & Hymel, 2003) found that, in response to hypothetical bullying situations, early adolescents themselves generated strategies that could be considered directly assertive (e.g., talking to the bully; standing up for or defending the victim), indirectly assertive (e.g., recruiting the assistance of adults or peers; being nice to the victim), passive (e.g., ignoring or leaving the situation), and/or aggressive (e.g., retaliating against the bully). However, students also reported enabling (e.g., laughing, pretending the situation is funny, or going along with it), a strategy not reported in Warden and Mackinnon's (2003) study. Furthermore, an examination of bystanders' goals revealed that, although the largest proportion of students endorsed goals likely to assist the victim, a large contingent of bystanders were motivated by self-interest. These findings suggest

that children's social problem-solving in bullying situations may be somewhat situation-sensitive.

Cursory findings in the literature point to the possibility that bystanders may prefer certain strategies over others. However, as suggested earlier, the role of emotions and emotion processes, although believed to be important to social information processing, has not been systematically studied and may be particularly important in understanding bystander behavior. For instance, fear may prevent some students from helping the victim. In consideration of emotion processes as an integral component of social information processing with the potential to influence bystanders' social problem-solving, it becomes important to explore the impact of emotions on bystander behavior. In the section that follows, relevant constructs and research on the role of emotion processes are reviewed.

Emotion Processes

Emotional experience. Within the emotional development literature, the capacity to experience and have an awareness of one's feelings is referred to as subjective emotional experience (Saarni, 1999). Children's social success is determined, in part, by how they manage their emotions with peers (Kopp, 1989). For instance, preschoolers learn to regulate emotional arousal in order to play with other children (Denham et al., 2002). Among early adolescents, an important developmental milestone related to *regulating* emotional experiences (i.e., emotion regulation) is increasing one's capacity to generate strategies for dealing with stressful circumstances (Saarni, 1999). Having access to multiple strategies for coping with stress is critical to keeping one's emotions in check. Later in adolescence, it is important to be able to deal with stress in ways that are consistent with one's moral values and personal philosophy

(Saarni, 1999). From a developmental perspective, then, early adolescence sets the stage for being able to regulate one's emotional experiences while maintaining a sense of integrity.

Emotional expression and dissemblance. Viewed as distinct from our internal experience of emotions, as humans, we also *show* how we feel through emotional expressive behaviors (Saarni, 1999). One important developmental task is the ability to recognize that how someone acts on the outside may be incongruent with how they feel on the inside, an emotional process called *emotional dissemblance* or *masking*. In middle childhood, children learn that there are norms for what types of expressive behavior are acceptable (i.e., display rules; see below). By early adolescence, the developmental period of interest in the present study, children have learned to make a distinction between how they show their feelings with close friends versus how they "manage" their emotional expressive behavior more publicly, within the larger peer group.

Display rules. As children develop, they become aware that there are norms regarding the types of emotions that are appropriate to display and those that are not, otherwise referred to as *display rules* (Saarni & von Salisch, 1993). The often-cited example is that of a young child who is given a less-than-adequate gift and, although disappointed, feigns being pleased to avoid hurting the gift-giver. Being unable to recognize or abide by the rules that govern emotion expression results in emotionally incompetent behavior that is typical of children with emotional disturbance (i.e., autistic children, aggressive children; Saarni, 1999). Thus, behaving in accordance with display rules is adaptive.

Interestingly, children as young as five years have been shown to display an "emotional cool front" (Saarni, 1999; see also Denham et al., 2002). Of concern is the extent to which the peer group is responsible for a "dampening [of] the expression of many emotions in many

situations" (von Salisch, 2001, p. 313), directly or inadvertently promoting the norm that emotions should remain in check as much as possible. In other words, among peers, it is important to put on a calm, unaffected face. Our concern is that in situations that are distressing or stressful, in the face of pressure to "act cool," peer observers may inadvertently communicate approval of bullying behavior. Though unintended, the result may be less peer intervention in bully-victim situations on the part of bystanders and, in turn, increased peer victimization. However, at this stage, these ideas are speculative and in need of investigation.

Emotion Processes, Social Information Processing, and Bullying

Few studies have examined the role of emotion and social information processes in school bullying. Studies that have been conducted to date have looked at emotion processes of victims and bullies (e.g., Mahady Wilton, Craig, & Pepler, 2000; Menesini et al., 2003) or emotion and information processing using ambiguous provocation scenarios (e.g., Camodeca & Goossens, 2005a; Camodeca, et al., 2003; Warden & Mackinnon, 2003).

Observational research conducted by Mahady Wilton and colleagues (2000) suggests that emotional displays have the potential to influence the response of others. For example, victims who show anger and contempt in response to being bullied, which serves to communicate his or her *resistance,* may be able to discourage further hostility. However, when bullies show anger and contempt, the effect and, potentially their motivation, may be that of establishing and maintaining social dominance. Similarly, Lemerise and colleagues (Lemerise, Fredstorm, Kelley, Bowersox, & Waford, 2006) found that when asked to imagine being the target of an ambiguous provocation, student responses varied depending on the emotional display of the provocateur - children's strategies were more friendly when the provocateur displayed sadness as compared with anger or happiness. Additionally, children were more likely to make hostile

attributions when the provocateur displayed anger. However, emotional displays influence

children's goals as well as their strategies. Lemerise, Gregory, and Fredstorm (2005)

demonstrated that children viewed by peers as both aggressive and rejected differed from other

children in that they endorsed goals of wanting revenge dominance and to avoid the provocateur.

Aggressive-rejected children also endorsed responses that were more hostile or unfriendly.

Based on these findings, it seems possible that emotional displays of *bystanders* might

have a bearing on the behavior of bullies, victims, and potentially, other bystanders. For

instance, bystanders who display anger when witnessing a bullying episode, which may

communicate his or her disapproval of the bully and support for the victim, might have the added

effect of discouraging further harassment. However, we currently know very little about the

emotions evoked by bullying situations for bystanders, and, perhaps more importantly, the extent

to which bystanders tend to show different emotions.

In a study of "moral emotions," Menesini and colleagues (2003) compared peer-

nominated bullies', victims', and outsiders' reports of moral responsibility emotions (i.e., guilt

and shame) versus moral disengagement emotions (i.e., indifference and pride). Participants

were presented with a series of cartoons depicting bullying and asked how they would feel if

they were the *bully* in each situation and why. Bullies reported more indifference and pride

when asked to take on the role of the bully than victims and outsiders who took the perspective

of the bully. Their rationales for their emotional attributions were also more egocentric,

stressing both positive and negative consequences for themselves as bullies. However, from

these results, we do not know how outsiders might be distinguished from defenders. Moreover,

this study considered moral emotions from the vantage point of being the aggressor or the victim

rather than the bystander which would be more informative in terms of understanding bystander behavior.

Camodeca and colleagues have reported findings from two studies examining both emotion processes and social information processing simultaneously (Camodeca & Goossens, 2005a; Camodeca et al., 2003). In their first study, Camodeca et al. (2003) assessed the social information processing of peer-nominated bullies, victims, bully/victims, and uninvolved children. Students' responded to ambiguous provocation scenarios in which they were asked to imagine themselves as the *victim*. Results indicated that students who were typically not involved directly in bullying reported more assertive responses when asked to take the role of the victim than students who were nominated by peers as either bullies or victims. Furthermore, compared to students who were typically uninvolved in bullying situations, those who were viewed by peers as bully/victims reported more blame, anger, and intent to retaliate. In a second study comparing the social information processing of peer-nominated bullies, victims, defenders, assistants, outsiders, and uninvolved students, Camodeca and Goossens (2005a) found that when asked to imagine being a victim, students viewed by peers as victims or bullies were more likely to perceive the perpetrator's actions as hostile, reported feeing angrier, and were more likely to retaliate than other children. Children nominated as victims also indicated that as victims they would feel more sadness as compared with others.

Overall, these findings suggest that, not only are bystanders likely to respond differently to social conflict (i.e., may be more assertive in their responses), they may also experience emotions (i.e., anger, sadness) likely to lead to retaliation less intensely. However, how bystanders respond, both behaviorally and emotionally, imagining themselves as victims may or may not correspond with how they respond as onlookers. Consequently, in order to understand

peer responses to bullying, the present study focused on the social problem-solving and emotion processes of bystanders. Of additional interest was the role that friendship status with the victim might have on bystanders' responses.

Friendships and Bullying

Research suggests that friendships may actually shield children from victimization (see Pellegrini & Long, 2004). For example, children who are liked or who have friends tend to be less victimized (Boulton, Trueman, Chau, Whitehand, & Amatya, 1999; Hodges, Boivin, Vitaro, & Bukowski, 1999; Pellegrini, Bartini, & Brooks, 1999). Although children are sometimes bullied by friends (Mishna, Wiener, & Pepler, 2008), research suggests that friendship may be a protective factor against further bullying (Pellegrini et al., 2010).

Peer relationships can also influence how children respond to and interpret the behavior of others (e.g., Hymel, 1986), leading to what Peets and colleagues refer to as "relationship-specific social information processing." Specifically, Peets, Hodges, Kikas, and Salmivalli (2007) found that when provoked or rebuffed, children's attributions and social problem-solving strategies varied depending on their relationship with the target peer. Specifically, in response to hypothetical vignettes, fourth graders were more likely to interpret the behavior of an enemy as compared with that of a friend as hostile and to endorse the use of hostile strategies involving threats, demands, retaliation, or revenge. Similarly, Peets, Hodges, and Salmivalli (2008) found children attributed greater hostility to self-identified disliked peers, anticipated poorer relational and instrumental outcomes when targeted by a disliked peer, and felt more confident in their use of aggression in response to being targeted by a disliked peer. Other research has shown that children nominated by classmates as aggressive or shy/withdrawn show a greater capacity for adaptive responding (e.g., more accurate attributions, less anger, and less endorsement of anti-

social strategies) when the provocateur is a friend (Burgess, Wojslawowicz, Rubin, Rose-Krasnor, & Booth-LaForce, 2006).

These studies suggest that the status of the relationship between the victim and the bystander (i.e., whether the victim is a friend/best friend, an acquaintance or less familiar peer, or a disliked peer) may be a critical factor, not only in determining whether or not bystanders will intervene (Rocke Henderson et al., 2002), but also how they interpret and respond to bullying situations. The present study extends this research by examining the influence of friendship status on bystanders' social problem-solving and emotion processes.

Current Study

In light of the view that bullying is a *group* process, studying peer involvement has taken on new importance in the literature on bullying. Although studies clearly indicate that peers are present when bullying occurs, it has been difficult for researchers to explain why bystanders tend not to intervene. Perhaps "putting the cart before the horse," bullying programs world-wide have emphasized peer intervention (e.g., Pepler, Craig, O'Connell, Atlas, & Charach, 2004; Salmivalli, Kaukiainen, Voeten, & Sinisammal, 2004; Stevens, Van Oost, & Bourdeaudhuij, 2004) without a full appreciation of the processes that impact bystander behavior and with limited success (Pepler, Smith, & Rigby, 2004).

In an effort to unravel the complex factors that contribute to *bystander* responses to bullying, the purpose of the present study was to (a) examine the links between bystanders' strategies and goals in bullying, (b) to establish whether early adolescent bystanders' social problem-solving and emotion processes vary as a function of gender and friendship status with the victim, and (c) to explore the links between early adolescent bystanders' social problem-solving and emotion processes.

Research Questions

Question 1: What are the Links Between Early Adolescent Bystanders' Strategies and Goals in Hypothetical Bullying Situations Involving Victimized Peers?

Within the social problem-solving literature, it is well-established that children's goals tend to be meaningfully and, at least moderately related to their strategies (Chung & Asher, 1996; Erdley & Asher, 1996; Rose & Asher, 1999; Rose & Asher, 2004). For instance, Chung and Asher (1996) found that in hypothetical conflict situations, children who focused on "relationship" goals endorsed more "prosocial" and "passive" strategies and less "hostile/coercive" strategies. Children who focused on "control" goals chose *more* "hostile/coercive" strategies and *fewer* "prosocial," "passive," and, "adult-seeking" strategies, whereas children motivated by avoidance favored "prosocial," "passive," and, "adult-seeking" strategies and endorsed fewer "hostile/coercive" strategies. With regard to bystander behavior and bullying, Rocke Henderson (2002; Rocke Henderson & Hymel, 2003) also found a fairly distinctive pattern of associations between goals and strategies (Table 1), with children being more inclined to be prosocial towards the victim (strategy) if they were interested in helping the victim (goal). Unfortunately, no goals correlated with peer involvement and direct intervention strategies and no strategies were found to be related to the goal of wanting to be prosocial.

Replicating and extending this research, similar patterns of associations were expected between bystanders' strategies and goals in the present study. Specifically, it was expected that bystanders motivated to get the bullying to stop (goal) would be more likely to endorse strategies such as talking to the bully, seeking adult involvement, and direct intervention strategies, whereas bystanders who wanted to help the victim and be prosocial were expected to endorse being prosocial to the victim (strategy). Bystanders concerned with avoiding involvement and

self-interest goals were expected to endorse inaction strategies. Finally, children who wanted

negative outcomes for the bully were expected to give higher ratings to goals involving hostility

and retaliation directed at the bully.

Table 1

Links between Bystanders' Strategies and Goals (Rocke Henderson, 2002; Rocke Henderson &

Hymel, 2003)

	Goals				
Strategies	Get Bullying to Stop	Self-Interest	Negatives Outcomes	Avoiding Involvement	Help Victim
Talk to Bully	+				
Enabling	-	+			
Inaction		+			
Hostility/Retaliation			+		
Adult Involvement		-		+	
Gain Information				-	
Prosocial to Victim					+

Question 2: Does Early Adolescent Bystanders' Social Problem-Solving in Hypothetical Bullying Situations Vary by Gender and Friendship Status with the Victim?

Of interest were:

2.1 Variations in strategies as a function of gender and friendship status.

2.2 Variations in goals as a function of gender and friendship status.

The literature suggests that boys and girls differ in social information processes. In general, whereas girls tend to endorse more prosocial, relationship-focused goals, boys tend to be more focused on "agentic and status-oriented" goals that emphasize self-interest, wanting to be viewed positively by others, and revenge (Rose & Rudolph, 2006). Previous research (Rocke Henderson, 2002; Rocke Henderson & Hymel, 2003) examining *bystanders* strategies and goals (Table 2) reflects similar findings with boys being more concerned than girls about self-interest and hostile goals and girls more likely to endorse prosocial strategies and goals. Replicating these findings, in the present study, boys were expected to endorse more hostile and self-focused strategies and goals, whereas girls were expected to endorse more strategies and goals aimed at assisting the victim.

Table 2

Gender Differences in Bystanders' Strategies and Goals (Rocke Henderson, 2002; Rocke Henderson & Hymel, 2003)

Strategy		Goal	
Prosocial to Victim	Boys<Girls	Self-Interest	Boys>Girls
Inaction	Boys>Girls	Prosocial	Boys<Girls
		Negative Outcomes	Boys>Girls

There is also evidence to suggest that one's relationships with others impacts social cognitive processing (e.g., Burgess et al., 2006; Hymel, 1986; Peets et al., 2007). Extending this research to bystander behavior, in the present study it was expected that bystanders would be more likely to endorse strategies (i.e., adult involvement, peer involvement, talk to bully, gain information, prosocial to victim, direct intervention) and goals (get bullying to stop, help victim, prosocial) in line with coming to the aid of victims when the situation involved a victimized friend. In contrast, it was expected that bystanders would be more likely to report destructive strategies such as enabling and inaction when the victim was a non-friend and more keen to pursue self-focused goals such as avoiding involvement and self-interest.

Question 3: Do Early Adolescent Bystanders' Emotion Processes in Hypothetical Bullying Situations Vary by Gender and Friendship Status with the Victim?

Of particular interest were:

3.1 Variations in initial emotional reactions as a function of gender and friendship status.

3.2 Variations in level of emotion as a function of gender and friendship status.

3.3 Variations in intention to dissemble as a function of gender and friendship status.

3.4 Variations in level of dissemblance as a function of gender and friendship status.

Gender differences in emotion processes are fairly well-established in the emotion literature. For example, boys typically show more disappointment than girls when they receive a less-than-satisfactory gift (Davis, 1995). Conversely, girls tend to acknowledge more sadness, hurt, and sympathy than boys (see Rose & Rudolph, 2006). However, studies have also shown that boys and girls do not always differ in their emotional responses. For example, Menesini and Camodeca (2008) found that boys and girls did not differ in their tendency to report feelings of guilt and shame in hypothetical situations in which they were either the target or the perpetrator of harmful behavior.

Studies examining anger-related emotion processes have yielded mixed results. For example, using hypothetical vignettes depicting "anger-provoking" situations, Underwood, Coie, and Herbsman (1992) found that early adolescent girls reported that they would express anger more openly than same-age boys. Underwood (2003) argues that generally girls and boys experience and express anger similarly. In light of these findings, girls in the present study were expected to report more sadness and fear and less happiness than boys but no predictions concerning anger were made.

Although research has shown that friendship status can influence emotion expression when children and adolescents are asked to imagine being provoked by a classmate versus a close friend (e.g., Whitesell & Harter, 1996), no known studies have examined the influence of friendship status with the victim on *bystanders'* emotion processes. Although speculative, it was

expected that, in general, bystanders would report experiencing negative emotions including sadness, anger, and fear more intensely when the situation involved a friend and perhaps more positive emotion such as happiness when the situation involved a victimized non-friend. However, because early adolescents may, to some extent, normalize bullying (Rocke Henderson, et al., 2002) and developmentally, may be inclined to dampen their emotional displays among peers (von Salisch, 2001), it was also expected that bystanders would be inclined to hide negative feelings in both situations (friend versus non-friend).

Question 4: What are the Links between Early Adolescent Bystanders' Social Problem-Solving and Emotion Processes in Hypothetical Bullying Situations?

Few studies to date have examined how emotion processes contribute to social information processing. Those studies that have been conducted demonstrate that emotional displays of provocateurs influence strategies, goals, and attributions of intent, (Lemerise et al., 2005; Lemerise et al., 2005). With regard to bullying, Camodeca and colleagues (2005a), examined social problem-solving among bystanders as well as others involved in bullying in the context of an ambiguous provocation but participants were asked to imagine being the victim. To date, no studies have directly examined the role of emotion processes in social problem-solving among children who witness bullying.

Predicting strategies from emotion processes. Based on the distinctions between past research and the present study, it was difficult to anticipate what links between bystanders' social problem-solving and emotion processes might emerge. Again, although speculative, vis-a-vis *strategies* and emotions, it was expected that, in general, both level of emotion and intention to dissemble would emerge as significant predictors of bystanders' strategies. In particular, it was expected that adult involvement would be predicted by fear (i.e., feeling scared

but wanting to hide one's fear), hostility/retaliation and peer involvement would be predicted by anger (i.e., feeling angry in response to the situation and being willing to show anger), and sadness (i.e., feeling sad and being willing to show feeling sad) would be associated with prosocial behavior. Finally, positive affect such as happiness was expected to predict enabling behavior. In addition, early adolescents who intended to show rather than hide their negative feelings (i.e., anger, fear, sadness) were expected to intervene on behalf of victims using the variety of means available to them (i.e., recruiting the assistance of an adult or peers, talking to the bully, gaining information, being prosocial to the victim, intervening directly on behalf of the victim). We also thought that, in general, level of emotion might emerge as a stronger predictor of strategies when the situation involved a friend because bystanders would experience emotions more intensely when bullying involved a friend.

Predicting goals from emotion processes. In general, it was expected that level of emotion and intention to dissemble would predict bystanders' goals in hypothetical bullying situations. Specifically, feeling scared and wanting to hide fear were expected to predict goals aimed at avoiding involvement, protecting one's own interests, and deferring to adults. Anger was expected to promote wanting negative outcomes for the bully. Feeling sad was expected to correspond with the pursuit of prosocial goals. Again, students who were prepared to show rather than hide their emotions were expected to pursue goals aimed at desisting the victimization such as getting the bully to stop and helping the victim. Finally, we expected level of emotion might emerge as a stronger predictor of goals when the situation involved a friend because of the likelihood that situations involving friends would elicit more intense emotions.

Method

Participants

Participants were 349 students (204 female, 145 male) in grades 6 ($n = 188$) and 7 ($n = 161$) attending nine public elementary schools within two large urban school districts in British Columbia.[1] The sample consisted of White (i.e., Caucasian/European descent; 58%), Chinese (6%), South Asian (3%), South East Asian (2%), Filipino (2%), and West Asian (1%) students. An additional 18% of students identified themselves as belonging to more than one ethnic or cultural group, 9% were unsure of their ethnic background, and the remaining 2% were Aboriginal ($n = 3$), Black ($n = 1$), Latin American ($n = 1$), Arab ($n = 1$), Japanese ($n = 1$), and Korean ($n = 1$). Fifteen percent of students reported speaking a language other than English at home and 17% having lived outside of Canada at some point in their life.

With the exception of one 10-year-old, students ranged in age from 11 to 13 years ($M = 12.40$, $SD = .58$). Early adolescents were chosen for several reasons. First, studies have shown a peak in bullying among early adolescents (Wang, Iannotti, & Nansel, 2009) that appears to correspond with the transition period between elementary and high school (Pellegrini & Long, 2002; Pepler et al., 2006; Pepler, Jiang, Craig, & Connolly, 2008) as well as an overall decrease in prosocial responding at this age (see Eisenberg, Fabes, & Spinard, 2006). Therefore, it was assumed not only that bullying would be a salient issue among participants but that information generated about early adolescents might be particularly important for understanding bullying and

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[1] In comparison with 2001 census data which indicated that provincially, 23% of families had household incomes less than $30,000 per year, percentages of families with household incomes less than $30,000 ranged from 11% to 37% ($M = 19.56$, $SD = 9.53$, $Mdn = 15.00$) in the nine participating schools (British Columbia Ministry of Education, 2008).

bystanders' reluctance to intervene. Second, early adolescence is a developmental period during which relationships with peers gain particular importance (Rubin, Bukowski, & Parker, 1998). Given our interest in the potential role of friendship status on bystanders' social problem-solving, studying early adolescents seemed appropriate. Finally, by early adolescence, normally developing children will have mastered the ability to identify and manage the display of their emotions (see Saarni, 1999; Saarni, Campos, Camras, & Witherington, 2006) rendering it appropriate to study these processes among children this age.

After gaining approval from the University Behavioural Research Ethics Board (see Appendix A) and participating school districts, the author was permitted to contact school principals (see Appendix B). Principals from nine schools across two school districts provided the names of teachers who were willing to have their grade 6 and 7 students participate. A team of researchers that included the author visited a total of 21 classes to explain the study, invite students to participate, and provide parental/guardian consent and student assent materials (see Appendix C). It should be noted that the term "bullying" was not used in any of the materials provided to students or parents/guardians although "bullying" was mentioned to principals and teachers. As compensation, a pizza party[2] was held in each class at the end of the study for all of the students regardless of whether or not they participated.

Eligible participants included only those students who agreed to take part in the study and those with active (written) parental/guardian consent. Out of 557 students, parental/guardian consent forms were returned at a rate of 79% ($n = 439$). Of those students who returned parental/guardian consent forms, 85% ($n = 375$) received parental/guardian consent and 80% ($n = 349$) assented and participated in the study.

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[2] In lieu of class pizza parties, one school requested that a draw be held for a $20 gift card from a national book seller in each of the participating classes.

Procedure

The principal investigator (author) and two graduate research assistants administered questionnaires to participating students in May and June, 2007. Students participated in a single, 60-minute, group testing session in their respective classrooms. Students who did not participate in the study were instructed to continue with work assigned and were supervised by the classroom teacher who remained present during the session.

Students first completed a demographic questionnaire (Background Information Questionnaire, see Appendix D) that was read aloud by the principal investigator. Students were then given an opportunity to fill out several practice items pertaining to the rest of the questionnaire. Practice items were also administered orally by principal investigator (Appendix E).

Next, students completed a peer nomination procedure in which they were instructed to write down the initials of three "close friends" and three children whom they did not consider their friends (non-friends) in the spaces provided (see Appendix F for Friendship Nomination Script). In all cases, students were asked to identify same-sex, same-age peers and were encouraged to nominate individuals in their class. During the nomination procedure, graduate research assistants circulated in order to ensure that all students provided the initials of six different individuals. Students were also reminded several times to keep their responses private both during and after the session.

After receiving a brief set of final instructions, students were asked to read a series of six bullying vignettes containing the initials of the three self-nominated friends and three self-nominated non-friends and respond to series of statements about their social problem-solving (strategies and goals) and emotional processes (initial emotion, initial emotional display, level of

emotion experienced, and intention to dissemble) (Appendix G). Finally, students completed the

Emotion Expression Scale for Children (Penza-Clyve & Zeman, 2002).[3] The principal

investigator and the graduate research assistants circulated, answered students' questions, and

checked each questionnaire package for completeness.

Measures

      Background information questionnaire. Students provided demographic information

that included information about their, age, grade, gender, and ethnicity (Appendix D).

      Hypothetical vignettes. The social problem-solving research paradigm, widely used to

study more benign peer conflict (i.e., aggression, friendship conflict) (see Chung & Asher, 1996;

Erdley & Asher, 1997; Hopmeyer & Asher, 1997; Rose & Asher 1999; Rose & Asher, 2004;

Troop-Gordon & Asher, 2005), typically involves presenting students with a series of

hypothetical vignettes and asking students to respond to questions about their strategies (i.e.,

"What would you say or do in that situation?") and goals (i.e., "What would be your reason for

saying or doing that?") (e.g., Chung & Asher, 1996). In the present study, vignettes as well as

strategy and goal alternatives were adapted from Rocke Henderson (2002; Rocke Henderson &

Hymel, 2003).

      Rocke Henderson (2002)conducted individual open-ended interviews with 140 grade 6

and 7 students in order to identify bystanders' strategies and goals in different types of bullying

situations. Specifically, students responded to nine vignettes involving three types of bullying

(direct physical bullying, direct verbal bullying, and indirect relational bullying). For each

scenario, students reported strategies and goals that were coded into nine strategy categories

(adult involvement, peer involvement, talk to the bully, gain further information,

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[3] Data pertaining to the Emotion Expression Scale for Children were not analysed for the purposes of the present study.

hostile/retaliatory behavior, prosocial behavior, enabling behavior, and inaction) and six goal categories (get harassment to stop, help the victim, avoid involvement, self-interest, prosocial, and negative outcomes for the bully) (see Appendix H). Good inter-rater reliability was established for both strategies (kappa = .91) and goals (kappa = .80).

In the present study, students were presented with a total of seven vignettes (one sample and six target vignettes) adapted from Rocke Henderson (2002) and designed to reflect the repetitive nature of bullying, the power differential that typically exists between the bully and victim, and low adult supervision. Vignettes described bullying conflicts involving moderately serious direct physical, direct verbal, and indirect relational aggression (two target vignettes of each type) (see Table 3).

Table 3

Bullying vignette synopses (adapted from Rocke Henderson, 2002)

Type of Bullying	Synopsis
Physical	Bully hits victim on the head with a textbook.
	Bully pulls victim's pants down in front of classmates in gym class.
Verbal	Group of bullies calls victim names near the end of recess.
	Bully threatens to beat victim up if he/she doesn't give $20.
Relational	Bully starts a note telling classmates who hate victim to sign the note.
	Group of bullies is gossiping about victim in the library.

Friendship nomination procedure. For each vignette, participants were asked to imagine that he or she is witnessing a bullying situation involving a bully (or bullies) and a

victim. Students were asked to imagine that what happens to the victim in each vignette happens to either a self-nominated friend or non-friend (adapted from Whitesell & Harter, 1996; see Friendship Nomination Script in Appendix F). This manipulation, reported first by Hymel (1986) using sociometric ratings of liked versus disliked peers, was used to make the stories more emotive, easier for students to imagine, and more personally relevant than stories that use the names of "pretend" or unnamed individuals and also allowed us to examine the influence of friendship status on bystanders' social problem-solving. The names of nominated friends were used in three vignettes (one describing each type of bullying) and the names of nominated non-friends in three vignettes (one describing each type of bullying). After reading each vignette, students were asked about their emotions, strategies, and goals.

Emotion processes. Participants were asked to respond to a series of statements (adapted from Dearing et al., 2002; Parker et al., 2001; Zeman & Garber, 1996) in response to each vignette to determine the degree to which early adolescents experience several emotion processes in bullying situations involving victimized peers.

Initial emotion. Students were first asked about how they would feel (i.e., "If I saw this happen I would feel…") choosing from five response alternatives ("happy," "angry," "sad," "scared," or "neutral").

Initial emotional display. Students were then asked whether or not they would show how they feel (i.e., "My face would look…") choosing from the same five response alternatives ("happy," "angry," "sad," "scared," or "neutral"). Students then rated several strategies and goals as described below.

Level of emotion experienced. Next, students rated the intensity of their emotions including how happy, angry, sad, and scared they would feel (i.e., "How happy would you feel if

you saw this happen?) on a 4-point scale (1 = "not at all," 2 = "a little bit," 3 = "pretty much," 4 = "a lot"). Results of reliability analyses indicated good internal consistency across hypothetical scenarios with coefficient alphas above .70 for angry, sad, and scared ratings (coefficient alpha for happy ratings was .66).

Intention to dissemble. Students' intention to dissemble their emotions was assessed by asking them to rate to what degree they would show feeling happy, angry, sad, and scared (i.e., "Would you show or not show how happy you feel if you saw this happen?") on a 4-point scale (1 = "definitely would not show," 2 = "probably would not show," 3 = "probably would show," 4 = "definitely would show"). Coefficient alphas calculated for students' ratings of their intention to dissemble their emotions across hypothetical situations ranged from .72 to .82.

Level of dissemblance. Level of dissemblance was calculated for each emotion (sad, angry, scared, happy) by subtracting participants' average level of emotion experienced ratings from their average respective intention to dissemble ratings. With possible scores ranging from – 3 to 3, scores of zero reflected the same amount of emotion experienced as displayed, positive scores reflected more emotion displayed than experienced, and negative scores reflected more emotion experienced than displayed.

Social problem-solving. After providing some initial information about their emotional response to each vignette (i.e., initial emotion; initial emotional display), students were asked to rate a series of statements about their strategies and goals.

Strategies. Students were asked, "What would you say or do if you saw this happen? Would you _____ ?" and were presented with a series of statements representing nine strategies and asked to rate each on a 4-point scale (1 = "definitely would not," 2 = "probably would not," 3 = "probably would," 4 = "definitely would"). Strategies, identified on the basis of previous

interviews with same age students (Rocke Henderson, 2002; Rocke Henderson & Hymel, 2003), included *adult involvement* (e.g., "Tell a teacher or some other adult."), *peer involvement* (e.g., "Do something about it with some of your friends."), *talk to the bully* (e.g., "Tell [the bully] to leave [the victim] alone."), *gain information* (e.g., "Ask the [bully] why they did that."), *hostility/retaliation* (e.g., "Do something like fight or yell at [the bully] OR threaten to do something."), *prosocial behavior* (e.g., "Be nice to OR do something to help [the victim] like ask if they're okay, comfort them or give them advice."), *direct intervention*, (e.g., "Stand up for or defend [the victim]."), *enabling* (e.g., "Laugh or pretend you think it's funny OR just go along with it."), and *inaction* (e.g., "Ignore the whole thing and leave."). Coefficient alphas for overall strategy ratings were generally above .70 with slightly lower values calculated for strategies including Enabling (.64) and Inaction (.51).

Goals. Students were then asked, "How important would it be for you to _____ ?" and asked to rate seven goal statements on a 4-point scale (i.e., 1 = "not at all important," 2 = "a little important," 3 = "pretty much important," 4 = "a lot important"). Goals, derived from previous research (Rocke Henderson, 2002; Rocke Henderson & Hymel, 2003), included *getting the harassment to stop* (e.g., "To get that kid to stop."), *helping the victim (e.g., "To help [the victim]."), avoiding involvement* (e.g., "To stay out of it and not get involved."), s*elf-interest* (e.g., "To make sure something like this doesn't happen to you."), *prosocial* (e.g., "To be nice or do the *right* thing,"), and *negative outcomes for the bully* (e.g., "To teach that kid a lesson so they know what it feels like."). Students were also asked to rate an additional goal statement, *defer to adults* (e.g., "To let someone like a teacher or some other adult deal with it.") in order to determine to what extent early adolescents might be motivated to have adults handle bullying

when it occurs. Goals showed good internal consistency with coefficient alphas ranging from

.71 to .89.

     Randomization. To minimize order and practice effects, a different version of the social

problem-solving measure was created for each class ($n = 21$ different versions). Computer-

generated random numbers (Urbanick & Plous, 2005) were used to determine the order of the

vignettes across and within type of bullying (physical, verbal, relational; story 1 versus story 2)

and friendship status with the victim (friend versus non-friend). Random numbers were also

used to determine the order of the strategies and goals as well as the emotions (i.e., angry, happy,

sad, scared) for level of emotion experienced and intention to dissemble ratings.

CHAPTER IV

Results

Analyses and results for the present study are presented in three major sections. First considered are efforts at data screening and verification of statistical assumptions for various analyses. Second, preliminary analyses, conducted to describe early adolescent bystanders' overall social problem-solving (strategies and goals) and emotion processes (initial emotion, initial emotional display, level of emotion experienced, intention to dissemble, and level of dissemblance), are presented. In the third and final section, the primary analyses and results are considered in four sub-sections, corresponding to each of the four research questions posed in the present research. All analyses were conducted using SPSS Version 15.0.

Data Screening

Data were first screened for input errors[4] and outliers. Screening for extreme cases revealed no data points with very large standardized scores (i.e., z-scores less than -3.29 and greater than 3.29) among the majority of variables. Across all variables, less than 1% of cases contained outliers. Among variables with outliers, only a small percentage of cases (between .3 and 4% of cases) contained outliers (see Appendix I). As recommended by Pedhazur and Schmelkin (1991), all analyses were run twice, once including all possible outliers and a second time with potential outliers removed. Removal of outliers produced only minimal differences in major aspects of the results (i.e., model summary, coefficients). Moreover, given that upon inspection, each outlier appeared to be a plausible case sampled from the target population of early adolescents, all cases were retained in subsequent analyses.

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[4] One hundred percent of the data were checked for input errors.

Statistical and visual inspection of the data was used to evaluate the assumptions of linearity and normality. Values of skewness and/or kurtosis greater than 2 (see Miles & Shelvin, 2001) suggested problems with non-normality among few social problem-solving variables (see Appendix I). Though not unexpected, by comparison, several emotion process variables were not normally distributed (Appendix I). Histograms for variables approaching non-normality reflected extremes in participants' endorsement of affected variables (i.e., reflecting either low endorsement among the majority of respondents on particular variables or high endorsement among the majority of respondents).

Rather than relying on a statistical approach, as recommended by Tabachnik and Fidell (2001) as a more useful means of assessing normality, normal probability-plots (p-plots) were also inspected and suggested a linear trend (i.e., majority of points falling on the line) among the majority of observed values[5] for each variable. Serious deviation from linearity occurred among emotion process variables involving happiness both when the situation involved a friend and a non-friend. Among strategies, observed values for enabling were not normally distributed when the situation involved a friend. A moderately non-linear distribution was also obtained for the goal of wanting to help the victim when the situation involved a friend. Rather than transforming or excluding variables with non-linear or non-normal distributions, it was assumed that results pertaining to these variables would have limited generalizability and were interpreted with caution.

The Levene statistic was used to test for homogeneity of variances. Generally, results showed equality of variance between groups (i.e., boys and girls) among social problem-solving variables. Homogeneity of variance was also found for all level of dissemblance variables, for

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[5] Statistical and visual inspection used to test the assumptions of linearity and normality of the residuals produced the same results and are therefore only reported once.

sad and angry level of emotion ratings, and for angry and happy intention to dissemble ratings across situations as well as for happy level of emotion ratings when the situation involved a non-friend. Among initial emotional response variables, the problem of unequal variances was more pervasive, with equal variances obtained only for angry and neutral initial emotion and display proportion scores when the situation involved a non-friend and happy and angry initial emotion proportion scores when the situation involved a friend (see Appendix I for a list of all variables with unequal variances).

Attempts at correcting inequality of variances through transformation were unsuccessful. Thus, the present data remained untransformed. Moreover, because sample sizes were unequal, variables with heterogeneous variances were inspected to determine whether variances were systematically larger for the larger group (i.e., girls) which would justify adjusting for an increased Type II error rate. However, variances associated with the larger group, were not consistently larger.

Results pertaining to variables for which assumptions were violated[6] were analyzed but were interpreted with due caution (i.e., reported within the results section for descriptive rather than inferential purposes). Emphasis in the discussion was on findings pertaining to variables for which assumptions were not violated.

Additional assumptions were evaluated for regression analyses, including homoscedasticity and multicollinearity. Visual displays showed no obvious signs of homoscedasticity (i.e., no curvilinear or fan-shaped distributions). All residual scatterplots except those for level of happiness and intention to dissemble happiness when the victim was a

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[6] **Strategies**: enabling [friend], prosocial [friend], gain information [friend], hostility/retaliation [non-friend]; **goals**: help the victim [friend]; **initial emotion and initial emotional display**: happy [friend, non-friend], sad [friend, non-friend], scared [friend, non-friend], neutral[friend]; **level of emotion**: happy [friend], scared [friend]; **intention to dissemble**: happy [friend, non-friend], scared [friend, non-friend], sad [friend]; and **level of dissemblance**: happy [friend, non-friend], sad [non-friend], scared [non-friend], angry[non-friend].

friend showed a fairly rectangular distribution. Furthermore, Durbin-Watson statistics were all between 1.0 and 3.0 providing further evidence that the assumption of equal variances among the residuals was met.

Bivariate correlations, variance inflation factor (VIF) statistics, and tolerance statistics were used to assess for problems with multicollinearity. None of the correlations among level of emotion experienced and intention to dissemble variables were above .80 (Tabachnick & Fidell, 2001; Appendix J). In addition, VIF and tolerance values were within accepted ranges (VIF less than 5; tolerance greater than .2) suggesting the absence of problems with multicollinearity.

Preliminary Analyses

Preliminary analyses were conducted to describe early adolescents bystanders' overall social problem-solving (strategies and goals) and emotion processes (initial emotion, initial emotional display, level of emotion experienced, intention to dissemble, and level of dissemblance). For each variable, scores were averaged across all six vignettes. A series of one-way repeated measures analyses of variance (ANOVA) were conducted to examine variability in bystanders' reported endorsement of strategies (adult involvement, peer involvement, talk to bully, gain information, hostility/retaliation, prosocial to victim, direct intervention, enabling, and inaction as within-subjects factors), goals (get bullying to stop, help victim, avoid involvement, self-interest, prosocial, negative outcomes, and defer to adults as within-subjects factors), initial emotion and initial emotional display (happy, angry, sad, scared, neutral as within-subjects factors), level of emotion experienced, intention to dissemble, and level of dissemblance (happy angry, sad, scared as within-subjects factors). In each of the analyses described below, the assumption of sphericity was violated and Greenhouse-Geisser corrected values were reported in lieu of traditional, uncorrected values. Post hoc tests were based on

pairwise comparisons with confidence intervals adjusted with a Bonferroni correction for multiple comparisons.

Strategies. Results of a one-way repeated measures ANOVA indicated significant differences among early adolescents' ratings of how likely they would be to engage in each strategy in response to observing bullying involving a peer, $F(3.99, 1388.16) = 376.03$, $p < .001$, η_p^2 (partial eta squared[7]) $= .52$. Follow-up tests confirmed several significant pairwise differences. Specifically, post hoc tests indicated that early adolescent bystanders' endorsed strategies involving prosocial behavior ($M = 3.01$, $SD = .60$), direct intervention ($M = 2.94$, $SD = .56$), and talking to the bully ($M = 2.92$, $SD = .61$) the highest. Relative to their endorsement of these three strategies, students endorsed peer involvement ($M = 2.57$, $SD = .58$) and gaining information ($M = 2.58$, $SD = .60$) strategies significantly lower, followed by adult involvement ($M = 2.37$, $SD = .80$). Significantly lower ratings were given to strategies featuring hostility/retaliation ($M = 1.78$, $SD = .64$) or inaction ($M = 1.78$, $SD = .44$) with ratings suggesting that students would be the *least* likely to engage in enabling strategies ($M = 1.44$, $SD = .42$).

Goals. Variability in early adolescents' endorsement of goals also emerged ($F(4.25, 1480.36) = 260.61$, $p < .001$, $\eta_p^2 = .43$). Follow-up pairwise comparisons indicated that students rated the goal of wanting to help the victim ($M = 3.18$, $SD = .51$) highest in terms of importance, followed by get the bully to stop ($M = 3.04$, $SD = .60$), self-interest ($M = 3.02$, $SD = .76$), and prosocial ($M = 2.96$, $SD = .74$) goals. The goal of avoiding involvement ($M = 1.85$, $SD = .57$) received the lowest importance ratings. Although rated higher than avoiding involvement, significantly lower ratings were also assigned to the goal of deferring to adults ($M = 2.34$, $SD = .79$) and wanting negative outcomes for the bully ($M = 2.16$, $SD = .77$).

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[7] Partial eta squares have been interpreted as follows: $\eta_p^2 > .04 =$ "practically" significant effect, $\eta_p^2 > .25 =$ moderate effect, and $\eta_p^2 > .64 =$ strong effect (Ferguson, 2009).

Initial emotional reactions. Descriptive data that looked at students initial emotional reactions (i.e., initial emotion, initial emotional display) to situations involving victimized peers using a forced-choice format (i.e., "If I saw this happen I would feel…happy, angry, sad, scared or neutral." "My face would look…happy, angry, sad, scared or neutral.") were examined first. Whereas the majority of students said they would initially feel angry (51%), only 37% said they would display their feelings of anger. Instead, more students (42%) reported that they would try to look neutral even though far fewer students (19%) actually reported neutral affect initially. Similarly, a small portion of students reported initial feelings of sadness (12%) and fear (14%), but relatively few students reported that they would display these feelings (initial sad display: 7%; initial scared display 9%). Finally, across situations, a small portion of students (5%) said they would experience and show happiness.

In order to further examine students' initial emotional reactions, categorical data were converted to proportion scores, reflecting the extent to which students endorsed a particular emotion relative to other emotions across all six vignettes. For each emotion, proportion scores were calculated for both how students said they would feel (initial emotion) and how they would look (initial emotional display) by dividing the total number of times a student chose an emotion by six, the total number of possible endorsements across vignettes.

One-way repeated measures ANOVAs confirmed significant differences in early adolescent bystanders' initial emotions, $F(3.13, 1084.60) = 287.11$, $p < .001$, $\eta_p^2 = .45$. Pairwise comparisons indicated that early adolescents were most likely to report that they would feel angry ($M = .51$, $SD = .23$) and least frequently feel happy ($M = .05$, $SD = .11$). Students reported neutral feelings ($M = .19$, $SD = .19$) less often than anger, and they were even less likely to report feeling scared ($M = .14$, $SD = .16$) or sad ($M = .12$, $SD = .17$).

Significant differences in initial emotional display were also found, F (2.35, 814.48) = 253.31, $p < .001$, $\eta_p^2 = .42$. Specifically, students reported that they would be most likely to look either angry ($M = .37$, $SD = .23$) or neutral ($M = .42$, $SD = .27$) and least likely to display feeling happy ($M = .05$, $SD = .11$), scared ($M = .07$, $SD = .14$) or sad ($M = .09$, $SD = .15$). However, results of follow-up comparisons indicated that only the difference between displaying sadness and happiness was significant with students significantly more likely to report feeling sad than happy.

Level of emotion experienced. Significant differences were observed among emotion experienced ratings (F (2.49, 864.24) = 500.24, $p < .001$, $\eta_p^2 = .59$). Follow-up comparisons revealed that, across bullying situations involving peers, early adolescent bystanders thought they would experience significantly more anger ($M = 2.60$, $SD = .54$) than sadness ($M = 2.01$, $SD = .62$), significantly more sadness than fear ($M = 1.76$, $SD = .61$), and significantly more fear than happiness ($M = 1.24$, $SD = .34$).

Intention to dissemble. Significance testing of the differences in students' mean ratings of their intention to dissemble their feelings (F (2.44, 845.29) = 276.62, $p < .001$, $\eta_p^2 = .44$) indicated that early adolescents would be most likely to hide feeling happy ($M = 1.32$, $SD = .45$) and to show feeling angry ($M = 2.22$, $SD = .60$). In comparison, they would hide feeling scared ($M = 1.55$, $SD = .55$) more than feeling sad ($M = 1.67$, $SD = .57$). Follow-up comparisons indicated that each of these pairwise differences were statistically significant.

Level of dissemblance. Overall, differences among level of dissemblance scores were also significant, F (2.48, 861.55) = 135.00, $p < .001$, $\eta_p^2 = .28$, with pairwise comparisons revealing significant differences as described below. Generally, early adolescents experienced negative emotions more intensely than they would be prepared to show. The greatest

dissemblance was reported for anger ($M = -.38$, $SD = .51$) and sadness ($M = -.34$, $SD = .47$), with no significant difference between the two. Students were significantly less likely to dissemble fear ($M = -.21$, $SD = .44$), although dissembling fear was significantly more likely than dissembling happiness. In fact, students did not appear to dissemble happiness ($M = .07$, $SD = .36$) as reflected by a mean approaching zero which suggests that they report experiencing as much happiness as they display.

To summarize, preliminary data analyses indicated that early adolescent bystanders' endorsed helpful or prosocial strategies such as being nice to the victim, intervening, or talking to the bully and the goal of wanting to help the victim the most favorably in response to hypothetical bullying situations. Problematic strategies such as enabling, inaction, and hostility/retaliation were rated the lowest, along with anti-social and avoidance goals. As an initial emotional reaction, bystanders' responses suggested that they would be most likely to feel angry but show either anger or neutral emotion. In response to hypothetical scenarios, bystanders' rating also indicated that they would feel anger more intensely than other emotions (level of emotion), would be most likely to hide feeling happy (intention to dissemble), and would experience negative emotions including sadness, anger, and fear more intensely than they would be prepared to show (level of dissemblance). Across analyses, effect sizes were consistently within the moderate range reflecting noteworthy variability in bystanders' endorsement of strategies, goals, and emotion processes.

Primary Analyses

Primary analyses and results addressed each of the four research questions.[8] First,

canonical correlation was used to examine the links between early adolescent bystanders'

strategies and goals. Next, the extent to which early adolescent bystanders' social problem-

solving varied as a function of gender and friendship status with the victim was examined in a

series of 2 X 2 (gender [boys, girls] X friendship status [friend, non-friend]) repeated measures

ANOVAs.

Similarly, in the third sub-section, a series of 2 X 2 (gender [boys, girls] X friendship status

[friend, non-friend]) repeated measures ANOVAs explored variations in emotion processes as a

function of gender. In the fourth and final sub-section, links between emotion processes and

social problem-solving were examined. First, a series of hierarchical multiple regressions were

used to determine to what degree gender and emotion processes (level of emotion experienced,

intention to dissemble) predicted early adolescent bystanders' strategies. Finally, in a parallel

series of analyses, bystanders' goals were predicted.

Question 1: What are the links between early adolescent bystanders' strategies and

goals in hypothetical bullying situations involving victimized peers? Within the social

problem-solving literature, links between strategies and goals have typically been examined

using bivariate correlations (e.g, Chung & Asher, 1996). As expected, inter-correlations

revealed significant associations among strategies and goals. For instance, as seen in Table 4,

correlations observed among various goals were generally moderate and in several cases,

consistent with what might expected intuitively. For example, the strongest correlation observed

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[8] Results describe all findings including those pertaining to variables for which assumptions were violated. To assist
the reader, † denotes affected variables. Discussion then emphasizes results that include variables for which
assumptions were not violated *and* those with larger effect sizes. Variables for which assumptions were violated are
included judiciously in the discussion mainly for illustrative or descriptive purposes.

was between the goal of getting the bullying to stop and helping the victim, which in turn were both correlated with prosocial goals. In contrast, the goals of getting the bullying to stop and helping the victim were significantly and negatively related to the goal of avoiding involvement. Not surprisingly, prosocial goals and avoid involvement goals were not significantly correlated, nor were the goals of helping the victim and self-interest.

As can be seen in Table 5, the pattern of inter-correlations observed among student endorsement of particular response strategies were also consistent with what might be expected. For instance, direct intervention strategies were strongly correlated with strategies involving gaining information, being prosocial to the victim, talking to the bully, and even hostility/retaliation but were not correlated with enabling or inaction strategies. By comparison, strategies including inaction and enabling were generally significantly and negatively correlated with all strategies involving assisting the victim in some way.

Of particular interest in the present study, however, were the correlations observed between the strategies and goals endorsed by students. As shown in Table 6, the correlations observed were generally consistent with what one might expect. For example, the goal of getting the bullying to stop was strongly correlated with several strategies (i.e., adult involvement, peer involvement, talking to the bully, gaining information, being prosocial to the victim, and direct intervention) likely to lead to a positive outcome for the victim and negatively correlated with response strategies including enabling and inaction.

Although the pattern of correlations observed between each of the nine strategies and each of the seven goals reflected a strong relationship between bystanders' strategies and goals (Table 6), it is noteworthy that none of the correlations exceeded .80, a further indication that the assumption concerning multicolinearity was met (Tabachnick & Fidell, 2001). Nevertheless,

given the fact that each goal correlated significantly with several strategies, further analyses regarding the links between bystanders' strategies and goals were conducted using canonical correlation.

Table 4

Inter-Correlations among Goals

	Goal						
Goal	1	2	3	4	5	6	7
1. Get Bullying to Stop	--	--	--	--	--	--	--
2. Help Victim	.75**	--	--	--	--	--	--
3. Avoid Involvement	-.16**	-.18**	--	--	--	--	--
4. Self-Interest	.22**	.09	.33**	--	--	--	--
5. Prosocial	.64**	.69**	.01	.24**	--	--	--
6. Negative Outcomes	.25**	.12*	-.03	.21**	.02	--	--
7. Defer to Adults	.38**	.39**	.14**	.22**	.46*	-.04	--

Note. $N = 349$.

* $p < .05$, two tailed. ** $p < .01$, two tailed.

Table 5

Inter-Correlations among Strategies

	Strategy								
Strategy	1	2	3	4	5	6	7	8	9
1. Adult Involvement	--	--	--	--	--	--	--	--	--
2. Peer Involvement	.23**	--	--	--	--	--	--	--	--
3. Talk to Bully	.37**	.52**	--	--	--	--	--	--	--
4. Gain Information	.42**	.49**	.80**	--	--	--	--	--	--
5. Hostility/ Retaliation	-.31**	.15**	-.04	-.10	--	--	--	--	--
6. Prosocial to Victim	.50**	.42**	.66**	.60**	-.30**	--	--	--	--
7. Direct Intervention	.24**	.53**	.70**	.55**	.11*	.57**	--	--	--
8. Enabling	-.31**	-.20**	-.37**	-.30**	.32**	-.43**	-.41**	--	--
9. Inaction	-.11*	-.27**	-.29**	-.24**	-.04	-.21**	-.36**	.38**	--

Note. N = 349.

* *p* < .05, two tailed. ** *p* < .01, two tailed.

Table 6

Correlations between Strategies and Goals

Strategy	Get Bullying to Stop	Help Victim	Avoid Involvement	Self-Interest	Prosocial	Negative Outcomes	Defer to Adults
				Goal			
Adult Involvement	.38**	.43**	.06	.13*	.46**	-.06	.83**
Peer Involvement	.48**	.43**	-.24**	.11	.35**	.32**	.14**
Talk to Bully	.77**	.64**	-.22**	.15**	.52**	.19**	.29**
Gain Information	.63**	.54**	-.13*	.14**	.46**	.14**	.34**
Hostility/ Retaliation	-.07	-.17**	-.05	.06	-.32**	.54**	-.27**
Prosocial to Victim	.62**	.76**	-.10	.06	.70**	-.04	.42**
Direct Intervention	.67**	.70**	-.26**	.05	.45**	.27**	.20**
Enabling	-.41**	-.52**	.26**	.11	-.41**	.08	-.24**
Inaction	-.30**	-.32**	.45**	.10	-.14**	-.08	-.01

Note. N = 349.

* *p* < .05, two tailed. ** *p* < .01, two tailed.

Prior to running the canonical correlation, data reduction was attempted but abandoned for several reasons. First, following data reduction efforts reported in the social problem-solving literature (see Rose & Asher, 1999), factor analysis and hierarchical cluster analysis did not produce satisfactory results (see Appendix K). Specifically, results of a generalized least squares factor analysis followed by orthogonal (varimax) rotation of the nine strategies suggested a 4-factor solution, but failed to produce an interpretable factor structure due to several cross loadings. By comparison, results of hierarchical cluster analysis suggested that the data were best represented by a 5-cluster solution involving a different combination of strategies. Although factor analysis of the seven goals produced a satisfactory 3-factor solution, hierarchical cluster analysis produced a different, 3-cluster solution.

Given these unsuccessful data reduction efforts, the first set of variables considered in the present canonical correlation included each of nine strategy ratings (adult involvement, peer involvement, talk to bully, gain information, hostility/retaliation, prosocial to victim, direct intervention, enabling, inaction) and the second set included each of seven goals ratings (get bullying to stop, help victim, avoid involvement, self-interest, prosocial, negative outcomes, and defer to adults). Perhaps more importantly, we viewed each strategy and each goal as conceptually distinct and were interested in the nuances in bystanders' social problem-solving that could only be studied if strategies and goals were organized individually rather than as clusters or factors. Furthermore, with no precedence in the published literature, and, given the exploratory nature of this research (see Huberty & Morris, 1989), we thought that it would be more informative to examine each strategy and goal independently.

As summarized in Table 7 the first six canonical correlations ranged from .89 to .24 accounting for between 79% and 6% of the overlapping variance. Chi-square tests revealed that

the first six canonical correlations were significant. That is, with all seven canonical correlations and with each of the first five canonical correlations removed, chi-square tests all reached significance suggesting that the first six pairs of canonical variates accounted for the significant relationship between strategies and goals. However, given that the squared canonical correlation (r_c^2) for the sixth variate accounted for less than 10% of the variance ($r_c^2 = .06$), the sixth variate was not interpreted.

Table 7

Summary of Canonical Correlations Analysis

Variate	Canonical Correlation	Squared Canonical Correlation	χ^2	df	p
1	.89	.79	1219.06	63	< .001
2	.80	.65	689.72	48	< .001
3	.65	.42	337.27	35	< .001
4	.46	.21	154.52	24	< .001
5	.38	.14	72.98	15	< .001
6	.24	.06	21.41	8	.006
7	.07	< .01	1.72	3	.633

Canonical loadings, percent variance, and redundancies for each of the first five pairs of canonical variates are provided in Table 8 For the first, second, third, and fifth variates, percent of variance and redundancy values suggested that strategy and goal sets of variables were related. However, the fourth pair appeared to be minimally related and, as a result, was not interpreted. Thus, the first, second, third, and fifth variates were judged to be "mathematically viable" (Tabachnick & Fidell, 2001) and are described below.

Table 8

Canonical Loadings, Percent Variance, and Redundancy between Strategies and Goals

	Canonical Loading					
	1st Variate	2nd Variate	3rd Variate	4th Variate	5th Variate	
Strategy Set						
Adult Involvement	-.78	.56	.24	-.04	-.10	
Peer Involvement	-.43	-.41	.35	.08	.03	
Talk to Bully	-.72	-.46	.25	-.39	.22	
Gain Information	-.65	-.26	.23	-.26	.20	
Hostility/Retaliation	.35	-.31	.72	.41	.12	
Prosocial to Victim	-.87	-.19	-.26	.14	.21	
Direct Intervention	-.67	-.55	.23	.23	.05	
Enabling	.58	.21	.20	-.05	.38	
Inaction	.29	.42	-.10	.04	.79	
% of Variance	.39	.16	.11	.05	.10	Σ = .81
Redundancy	.31	.10	.05	.01	.02	Σ = .49
Goal Set						
Get Bullying to Stop	-.79	-.44	.24	-.31	.22	
Help Victim	-.88	-.36	-.06	.25	.05	
Avoid Involvement	.14	.46	-.08	.09	.85	
Self-Interest	-.10	.07	.26	-.20	.47	
Prosocial	-.78	-.10	-.24	.01	.29	
Negative Outcomes	.02	-.34	.78	.39	.24	
Defer to Adults	-.74	.62	.27	-.06	-.01	
% of Variance	.37	.15	.13	.05	.16	Σ = .86
Redundancy	.29	.10	.05	.01	.02	Σ = .47

The first canonical variate. Using a cut-off of .3 (see Tabachnick & Fidell, 2001), eight out of the nine variables in the strategy set (i.e., adult involvement, peer involvement, talk to bully, gain information, prosocial to victim, direct intervention, and enabling) correlated with the first canonical variate. Variables from the goal set that correlated with the first canonical variate included get bullying to stop, help the victim, prosocial, and defer to adults. As depicted in Figure 1, loadings for the first pair of canonical variates indicated that high hostility/retaliation and enabling strategy ratings and low adult intervention, peer involvement, talk to bully, gain information, prosocial to victim, and direct intervention strategy ratings were associated with low ratings of goals involving wanting to get the bully to stop, help the victim, be prosocial, or defer to adults.
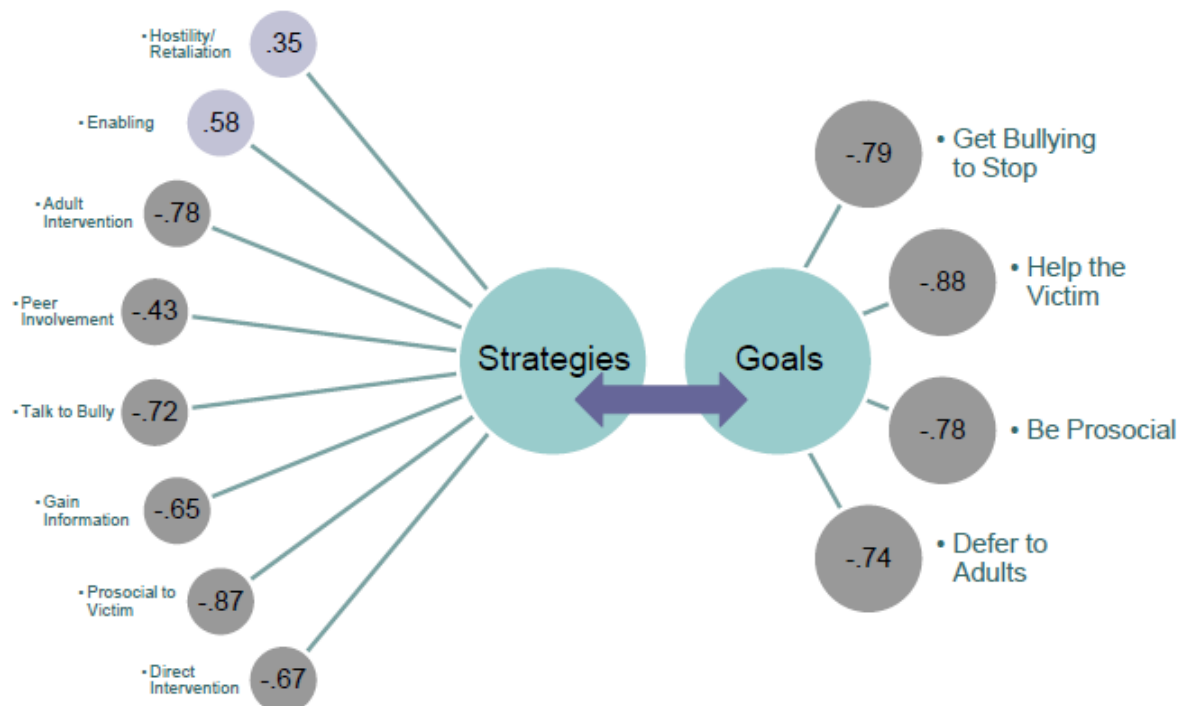
Figure 1. The first canonical variate.

The second canonical variate. The second canonical variate included the strategy set of adult involvement, peer involvement, talk to bully, hostility/retaliation, direct intervention, and inaction. These strategies were related to the goals of get bullying to stop, help the victim, avoid involvement, negative outcomes for the bully, and defer to adults. As seen in Figure 2, loadings revealed that early adolescents who gave higher avoid involvement and defer to adults ratings as well as lower get the bully to stop, help the victim, negative outcomes for the bully goal ratings gave higher adult involvement and inaction strategy ratings and lower peer involvement, talk to the bully, hostility/retaliation, and direct intervention strategy ratings.
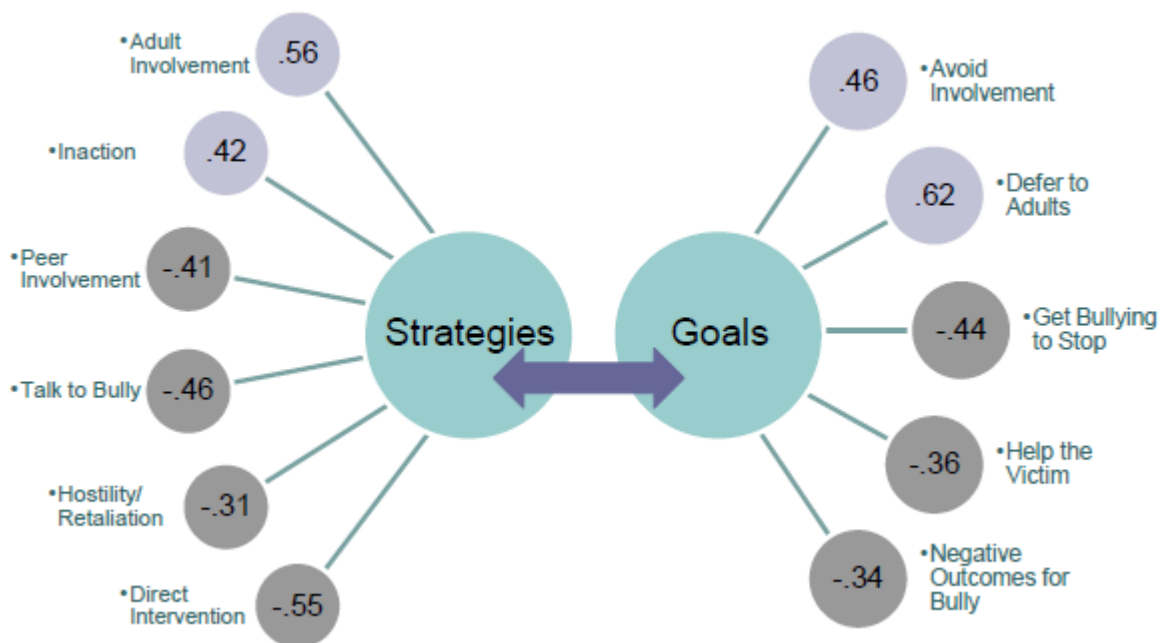
Figure 2. The second canonical variate.

The third canonical variate. The third canonical variate included hostility/retaliation and peer involvement from the strategy set and negative outcomes for the bully from the goal set. Loadings suggested that students who want negative outcomes for the bully were more likely to endorse the use of peer involvement and hostility/retaliation as strategies (Figure 3).
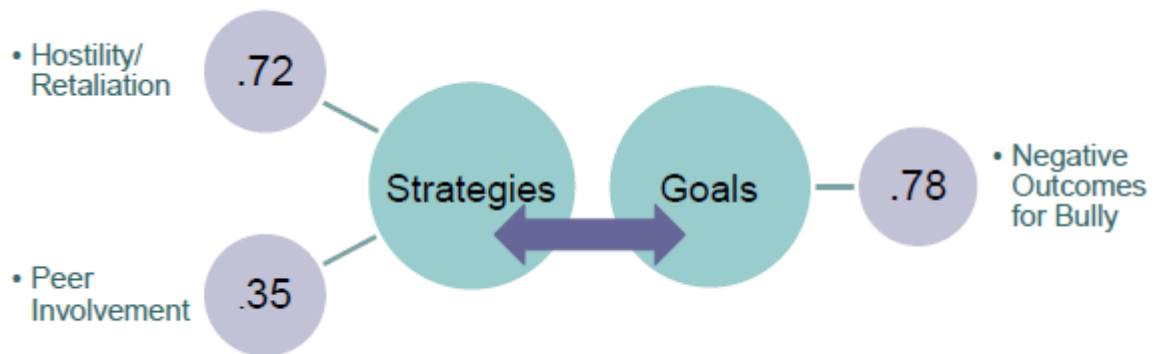
Figure 3. The third canoncial variate.

The fifth canonical variate. The fifth canonical variate included enabling and inaction strategies and avoid involvement and self-interest goals. Loadings indicated that students who endorsed the use enabling and inaction strategies were motivated self-interest and a desire to avoid involvement (see Figure 4).
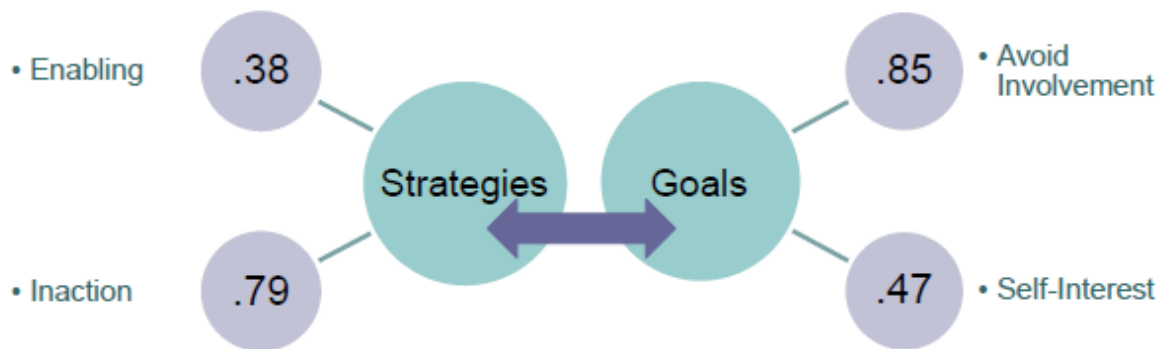
Figure 4. The fifth canonical variate.

To summarize, results of canonical correlation showed distinct associations among early adolescent bystanders' strategies and goals in response to hypothetical bullying situations. However, contrary to what was expected, a more complicated set of relationships between strategies and goals emerged. For example, the first canonical variate showed that students who failed to endorse a range of prosocial and helpful goals were more likely to endorse both retaliation against a bully and enabling the bullying. However, when bystanders wanted negative outcomes for the bully, they endorsed hostility and retaliation but were also more likely to endorse recruiting the assistance of peers. In contrast, bystanders who wanted to avoid involvement, preferring instead to defer to an adult, were more likely to endorse either doing nothing (inaction) or recruiting the assistance of an adult. Finally, the fifth canonical variate showed that when bystanders were motivated by self-interest and a desire to avoid involvement, they endorsed strategies involving either inaction or enabling.

Question 2: Does early adolescent bystanders' social problem-solving in hypothetical bullying situations vary by gender and friendship status with the victim? A two-way mixed design was used to examine variations in early adolescent bystanders' social problem-solving in hypothetical bullying situations. Specifically, a series of 2 X 2 (gender [boys, girls] X friendship status [friend, non-friend]) repeated measures ANOVAs[9] were performed separately for each dependent variable, with gender as a between-subjects factor and friendship status with the victim as a within-subjects factor. Analyses were run separately for each of nine strategy ratings (adult involvement, peer involvement, talk to bully, gain information, hostility/retaliation, prosocial to victim, direct intervention, enabling, inaction) and seven goal ratings (get bullying to stop, help victim, avoid involvement, self-interest, prosocial, negative

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[9] Although a mixed design that included one within-subjects factor (friendship status) and one between-subjects factor (gender) was used in this study to examine variations in several processes, use of "repeated measures" ANOVAs is reported throughout this document as this more accurately reflects the analysis conducted in SPSS.

outcomes, and defer to adults). A Bonferroni correction was used to account for the high number of tests. Critical values of $p < .007$ and $p < .006$ were used to determine statistical significance for analyses involving strategies and goals, respectively. Finally, it should be noted that in analyses involving ANOVA, guidelines reported by Ferguson (2009) for interpreting squared association indices of effect size including partial eta square (η_p^2) were used. Ferguson suggests that $\eta_p^2 > .04$ represents a minimum effect size needed to be considered "practically" significant, $\eta_p^2 > .25$ represents a moderate effect, and $\eta_p^2 > .64$ suggests a strong effect. Emphasis was placed on interpreting results with effect sizes suggesting at least "practical" significance.

Variations in strategies as a function of gender and friendship status. Results of a series of 2 X 2 (gender [boys, girls] X friendship status [friend, non-friend]) repeated measures ANOVAs examining bystanders' strategies, indicated significant main effects of friendship status with the victim and gender for each strategy except inaction. Across strategies, no significant interactions between gender and friendship status were found to be significant.

Main effects of friendship status. Significant main effects of friendship status were obtained for strategies including adult involvement, $F(1, 346) = 75.94$, $p < .001$, $\eta_p^2 = .18$, peer involvement, $F(1, 346) = 359.15$, $p < .001$, $\eta_p^2 = .51$, talking to the bully, $F(1, 346) = 283.55$, $p < .001$, $\eta_p^2 = .45$, gaining information, $F(1, 346) = 191.12$, $p < .001$, $\eta_p^2 = .36$, being prosocial towards the victim, $F(1, 346) = 441.83$, $p < .001$, $\eta_p^2 = .56$, direct intervention, $F(1, 346) = 604.00$, $p < .001$, $\eta_p^2 = .64$, and hostile/retaliatory behavior strategies,($F(1, 346) = 154.74$, $p < .001$, $\eta_p^2 = .31$). Students' endorsement of each of these strategies was higher when the bullying situation involved a friend than a non-friend (Table 9). In contrast, endorsement of both enabling ($F(1, 346) = 205.85$, $p < .001$, $\eta_p^2 = .37$) and inaction strategies ($F(1, 346) = 288.15$, $p < .001$, $\eta_p^2 = .45$) was significantly higher when the victim was a non-friend (Table 9).

Table 9

Mean Strategy Ratings and Standard Deviations across Friendship Status with the Victim

	Friend		Non-Friend	
Strategy	*M*	*SD*	*M*	*SD*
Adult Involvement***	2.52	.88	2.22	.85
Peer Involvement***	2.99	.71	2.15	.69
Talk to Bully***	3.24	.65	2.58	.75
Gain Information[†]***	2.83	.76	2.32	.80
Hostility/Retaliation[†]***	2.02	.85	1.55	.59
Prosocial[†]***	3.44	.62	2.58	.79
Direct Intervention***	3.46	.60	2.42	.76
Enabling[†]***	1.18	.34	1.70	.68
Inaction***	1.44	.49	2.13	.64

† Denotes variables for which assumptions were violated. *** $p < .001$.

Main effects of gender. Significant main effects of gender also emerged for these strategies, with girls endorsing more adult involvement, $F(1, 346) = 21.87$, $p < .001$, $\eta_p^2 = .06$, peer involvement, $F(1, 346) = 8.28$, $p = .004$, $\eta_p^2 = .02$, talking to the bully, $F(1, 346) = 22.84$, $p < .001$, $\eta_p^2 = .06$, gaining information, $F(1, 346) = 24.51$, $p < .001$, $\eta_p^2 = .07$, being prosocial towards the victim, $F(1, 346) = 97.28$, $p < .001$, $\eta_p^2 = .22$), and direct intervention ($F(1, 346) = 13.09$, $p < .001$, $\eta_p^2 = .04$) relative to boys. In contrast, boys endorsed more enabling strategies ($F(1, 346) = 13.34$, $p < .001$, $\eta_p^2 = .04$) and hostile/retaliatory behavior strategies ($F(1, 346) = 36.22$, $p < .001$, $\eta_p^2 = .10$) than girls (Table 10).

Table 10

Mean Strategy Ratings and Standard Deviations across Gender

Strategy	Boys		Girls	
	M	*SD*	*M*	*SD*
Adult Involvement***	2.14	.76	2.65	.79
Peer Involvement**	2.46	.56	2.65	.58
Talk to Bully***	2.73	.61	3.04	.57
Gain Information†***	2.37	.74	2.74	.63
Hostility/Retaliation†***	2.02	.68	1.62	.56
Prosocial†***	2.68	.60	3.25	.48
Direct Intervention***	2.81	.54	3.03	.56
Enabling†***	1.54	.45	1.37	.39
Inaction	1.79	.42	1.78	.45

† Denotes variables for which assumptions were violated. ** $p < .01$. *** $p < .001$.

As expected, results showed that in response to hypothetical bullying situations, early adolescents were more likely to report that they would intervene on behalf of a victimized friend than a non-friend using a variety of means though it was not anticipated that this would also include hostile behavior and retaliation. As anticipated, strategies more likely to perpetuate bullying such as enabling and inaction were endorsed more strongly when the situation involved a victim who was not a friend. In general, a predicted pattern of results showed that girls were more likely than boys to endorse using a variety of helpful strategies. By comparison, boys gave higher ratings to strategies involving retaliation and enabling. Across strategies, effect sizes

were moderate for friendship status (range = .18 to .64) and more modest for gender (range = .02 to .22).

Variations in goals as a function of gender and friendship status. As in the previous analyses, a series of 2 x 2 (gender [boys, girls] X friendship status [friend, non-friend]) repeated measures ANOVAs indicated that bystanders' goals varied significantly as a function of both gender (between subjects factor) and friendship (within subjects factor) but not their interaction.

Main effects of friendship status. A significant main effect of friendship status indicated that, in situations involving friends, as compared with non-friends, students were more likely to be motivated by a desire to get the bully to stop, $F(1, 346) = 340.70$, $p < .001$, $\eta_p^2 = .50$, help the victim, $F(1, 346) = 642.63$, $p < .001$, $\eta_p^2 = .65$, be prosocial, $F(1, 346) = 141.75$, $p < .001$, $\eta_p^2 = .29$, and want negative outcomes for the bully, $F(1, 346) = 172.93$, $p < .001$, $\eta_p^2 = .33$, (Table 11). The goal of wanting to avoid involvement, $F(1, 346) = 159.61$, $p < .001$, $\eta_p^2 = .32$), was endorsed significantly more when the situation involved a non-friend (see Table 11).

Table 11

Mean Goal Ratings and Standard Deviations across Friendship Status with the Victim

	Friend		Non-Friend	
Goal	*M*	*SD*	*M*	*SD*
Get Bullying to Stop***	3.42	.62	2.66	.79
Help Victim†***	3.73	.42	2.63	.81
Avoid Involvement ***	1.60	.62	2.11	.74
Self-Interest	3.00	.84	3.03	.79
Prosocial***	3.18	.80	2.74	.81
Negative Outcomes for Bully***	2.43	.95	1.89	.77
Defer to Adults	2.36	.86	2.34	.83

† Denotes variables for which assumptions were violated. *** $p < .001$.

Main effects of gender. Gender differences also emerged for several goals, with girls rating get the bully to stop, $F (1, 346) = 17.20$, $p < .001$, $\eta_p^2 = .05$, help the victim, $F (1, 346) = 41.52$, $p < .001$, $\eta_p^2 = .11$, prosocial goals, $F (1, 346) = 28.50$, $p < .001$, $\eta_p^2 = .08$), and wanting to defer to adults, $F (1, 347) = 9.77$, $p = .002$, $\eta_p^2 = .03$), higher than boys (see Table 12).

As can been seen in Tables 15 and 16, emphasis on self-interest goals did not vary significantly as a function of gender, $F (1, 346) = .06$, $p = .81$, $\eta_p^2 < .01$, or friendship status, $F (1, 346) = .25$, $p = .62$, $\eta_p^2 < .01$ nor did the interaction term reach significance ($F (1, 346) = 4.13$, $p = .04$, $\eta_p^2 = .01$).

Table 12

Mean Goal Ratings and Standard Deviations across Gender

Goal	Boys		Girls	
	M	*SD*	*M*	*SD*
Get Bullying to Stop***	2.89	.61	3.15	.58
Help Victim[†]***	2.99	.51	3.32	.46
Avoid Involvement	1.84	.60	1.86	.55
Self-Interest	3.03	.81	3.01	.73
Prosocial***	2.72	.73	3.14	.70
Negative Outcomes for Bully	2.26	.81	2.09	.73
Defer to Adults**	2.20	.81	2.44	.77

† Denotes variables for which assumptions were violated. ** Significant at $p < .01$.

***Significant at $p < .001$.

To summarize, in response to hypothetical situations, bystanders appeared to favor more socially responsible goals when the situation involved a friend but also endorsed wanting negative outcomes for the bully when a friend was victimized. As bystanders, early adolescents were more likely to endorse wanting to avoid involvement when the situation involved a non-friend. Gender differences showed that girls rated a variety of prosocial goals more positively than boys. However, boys and girls did not differ in their endorsement of more self-focused or antisocial goals such as wanting to avoid involvement, self- interest, and wanting negative outcomes for the bully. Across analyses, main effects of friendship status showed moderate to strong effect sizes; the main effect of gender showed modest effect sizes (range = .03 to .11).

Question 3: Do early adolescent bystanders' emotion processes in hypothetical bullying situations vary by gender and friendship status with the victim? A series of 2 X 2 (gender [boys, girls] X friendship status [friend, non-friend]) repeated measures ANOVAs were used to examine variations in early adolescent bystanders' emotion processes in hypothetical bullying situations. Analyses were again performed separately for each dependent variable, with gender as a between-subjects factor and friendship status with the victim as a within-subjects factor. Dependent variables included five initial emotion proportion scores (happy, angry, sad, scared, neutral), five initial emotional display proportion scores (happy, angry, sad, scared, neutral), four level of emotion experienced ratings (happy, angry, sad, scared), four intention to dissemble ratings (happy, angry, sad, scared), and four level of dissemblance ratings (happy, angry, sad, scared). Significant interactions were examined using simple effects analyses and a critical value of $p < .01$ was used to determine statistical significance.

Variations in initial emotional reactions as a function of gender and friendship status.
A series of 2 X 2 (gender [boys, girls] X friendship status [friend, non-friend]) repeated measures ANOVAs were performed to examine whether students' initial emotion and their initial emotional display varied as a function of gender (between-subjects factor) and friendship status (within-subjects factor).

Means and standard deviations for bystanders' initial emotion are presented in Table 13. Results revealed significant gender by friendship status interactions for students' initial reports of feeling happy and neutral.

Table 13

Mean Initial Emotional Reactions (Initial Emotion and Initial Emotional Display Proportion Scores) and Standard Deviations by Gender and Friendship Status with the Victim

		Friend				Non-Friend			
		Boys		Girls		Boys		Girls	
Initial Emotional Reaction		*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Emotion	Happy[†]	.007	.06	.003	.03	.13	.24	.07	.17
	Angry	.80	.28	.68	.30	.27	.30	.29	.33
	Sad[†]	.05	.14	.10	.20	.10	.21	.21	.27
	Scared[†]	.08	.16	.19	.23	.08	.18	.17	.24
	Neutral[†]	.07	.17	.02	.08	.42	.33	.27	.31
Display	Happy[†]	.01	.07	.01	.04	.13	.24	.06	.18
	Angry	.58	.38	.58	.34	.17	.24	.15	.25
	Sad[†]	.04	.12	.10	.18	.01	.07	.10	.20
	Scared[†]	.05	.14	.16	.24	.04	.12	.08	.18
	Neutral[†]	.32	.36	.16	.25	.65	.33	.60	.35

† Denotes variables for which assumptions were violated.

Initial emotion: Happy. For feeling happy, a main effect of gender, $F(1, 346) = 8.67$, p = .003, $\eta_p^2 = .02$, a main effect of friendship status, $F(1, 346) = 74.65$, p < .001, $\eta_p^2 = .18$, and a gender by friendship status interaction, $F(1, 346) = 8.18$, p = .004, $\eta_p^2 = .02$, emerged. As depicted in Figure 5, results of simple effects analyses showed that both boys ($F(1, 346) = 56.69$, p < .001) and girls ($F(1, 346) = 20.95$, p < .001) were more likely to endorse feeling happy when

the situation involved a non-friend. However, gender differences emerged only for situations

involving non-friends ($F(1, 346) = 8.88$, p = .003).
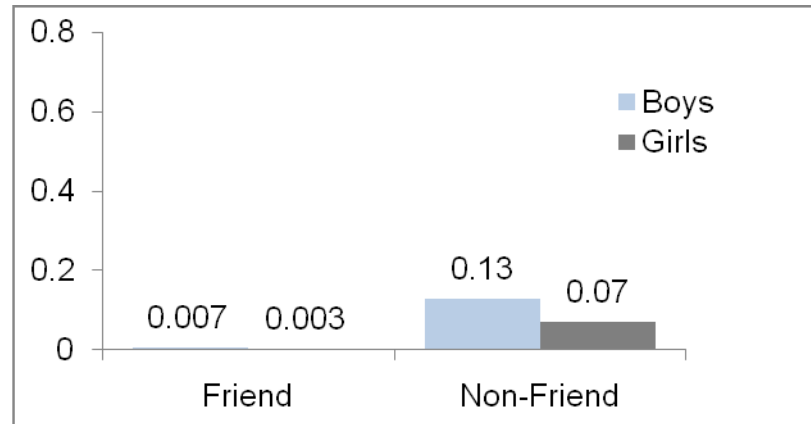
Figure 5. Variations in initial happy feelings as a function of gender and friendship status with

the victim.

Initial emotion: Neutral. For reported neutral feelings, main effects of gender, $F(1, 346)$

$= 26.40$, p < .001, $\eta_p^2 = .07$, and friendship status, $F(1, 346) = 289.21$, p < .001, $\eta_p^2 = .46$, were

significant but were qualified by a significant gender by friendship status interaction, $F(1, 346) =$

9.98, p = .002, $\eta_p^2 = .03$. Simple effects analyses indicated significant gender differences when

the situation involved a friend, $F(1, 346) = 10.53$, p = .001, and a non-friend, $F(1, 346) = 20.46$,

p < .001 (see Figure 6). Analyses also indicated that feeling neutral varied significantly as a

function of friendship status for both boys ($F(1, 346) = 174.28$, p < .001) and girls ($F(1, 346) =$

115.03, p < .001), although an inspection of means suggests that this difference was stronger for

boys.
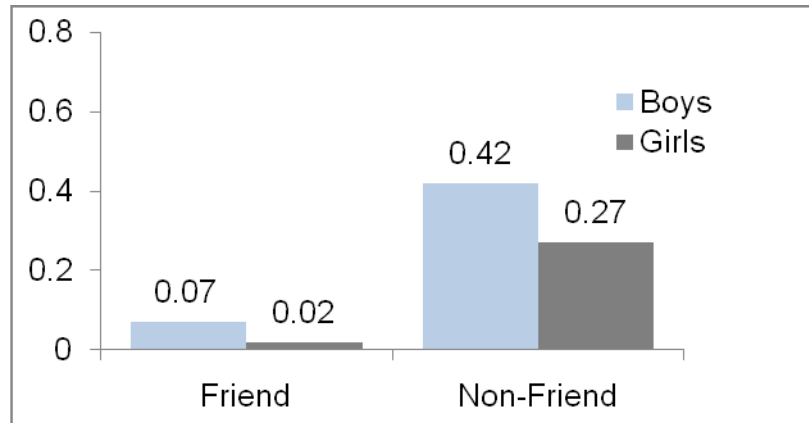
Figure 6. Variations in initial neutral feelings as a function of gender and friendship status with the victim.

Initial emotion: Angry. With regard to initial feelings of anger, results indicated a main effect of friendship status, $F(1, 346) = 451.26$, $p < .001$, $\eta_p^2 = .57$, and a gender by friendship status interaction, $F(1, 346) = 9.91$, $p = .002$, $\eta_p^2 = .03$. Simple effects analyses used to explore the interaction term (see Figure 7) reflected gender differences for situations involving friends, $F(1, 346) = 14.25$, $p < .001$, but not non-friends. Specifically, boys reported that they would feel angry more often than girls when the situation involved a friend. In both cases, boys ($F(1, 346) = 254.96$, $p < .001$) and girls ($F(1, 346) = 196.46$, $p < .001$) endorsed anger more often when the situation involved a friend.
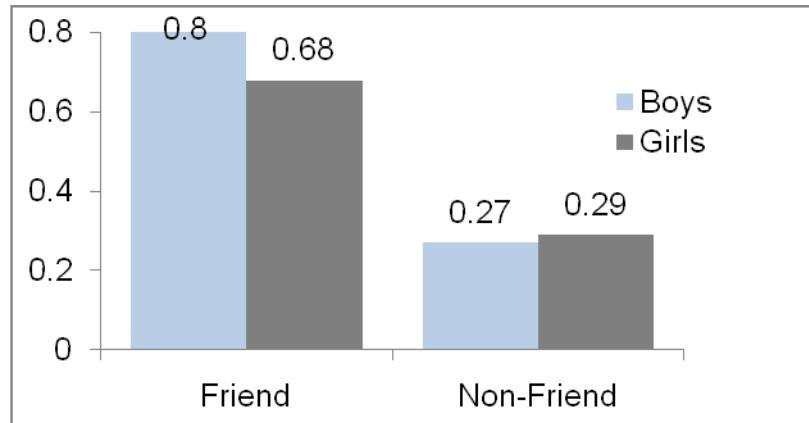
Figure 7. Variations in initial angry feelings as a function of gender and friendship status with the victim.

Initial emotion: Scared, sad. Reported feelings of fear (scared) varied significantly as a function of gender, $F(1, 346) = 37.64$, $p < .001$, $\eta_p^2 = .10$, with girls reporting feeling scared more often than boys (girls: $M = .18$, $SD = .17$; boys: $M = .08$, $SD = .13$). Reported feelings of sadness varied significantly with regard to both gender and friendship status. Specifically, the main effect of gender, $F(1, 346) = 21.46$, $p < .001$, $\eta_p^2 = .06$, indicated that girls were more likely than boys to admit to feeling sad initially (girls: $M = .15$, $SD = .18$; boys: $M = .07$, $SD = .14$). Contrary to what might be expected, the significant main effect of friendship status, $F(1, 346) = 26.40$, $p < .001$, $\eta_p^2 = .07$, revealed that students were more likely to report reacting with sadness when the situation involved a non-friend ($M = .16$, $SD = .25$) as compared with a friend ($M = .08$, $SD = .18$).

Means and standard deviations for bystanders' initial emotional display are reported in Table 13. Results of 2 (gender) X 2 (friendship status) repeated measures ANOVAs analyses examining bystanders' initial display of emotion indicated main effects and interactions for looking happy, scared, and neutral.

Initial emotional display: Happy. Main effects of gender, $F(1, 345) = 60.41$, $p < .001$, $\eta_p^2 = .15$, and friendship status, $F(1, 345) = 8.96$, $p = .003$, $\eta_p^2 = .03$, were significant for looking happy initially. A significant gender by friendship interaction (see Figure 8) for looking happy, $F(1, 345) = 6.82$, $p = .009$, $\eta_p^2 = .02$, was examined using simple effects analyses. Results revealed significant gender differences for situations involving non-friends, $F(1, 345) = 8.44$, $p = .004$, in that boys reported that they would be more likely than girls to show feelings of happiness but only when the situation involved a non-friend. Simple effects analyses also showed that both boys ($F(1, 345) = 46.31$, $p < .001$) and girls ($F(1, 345) = 15.93$, $p < .001$) were more likely to endorse looking happy when the situation involved a non-friend.
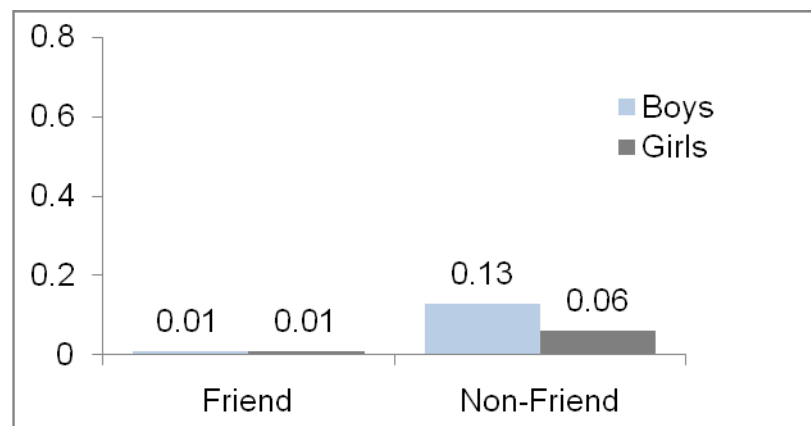
Figure 8. Variations in initial happy display as a function of gender and friendship status with the victim.

Initial emotional display: Scared. Significant main effects of gender, $F(1, 345) = 26.65$, $p < .001$, $\eta_p^2 = .07$, and friendship status, $F(1, 345) = 11.88$, $p = .001$, $\eta_p^2 = .03$, were qualified by a significant gender by friendship status interaction (see Figure 9), $F(1, 345) = 8.38$, $p = .004$, $\eta_p^2 = .02$. Simple effects analyses confirmed significant gender differences for situations involving friends, $F(1, 345) = 51.70$, $p < .001$, and non-friends, $F(1, 345) = 6.00$, $p = .02$, with

girls being more likely than boys to report that they would look scared initially. Furthermore, girls were more likely to look scared when the situation involved a friend, $F(1, 345) = 24.06$, $p < .001$.
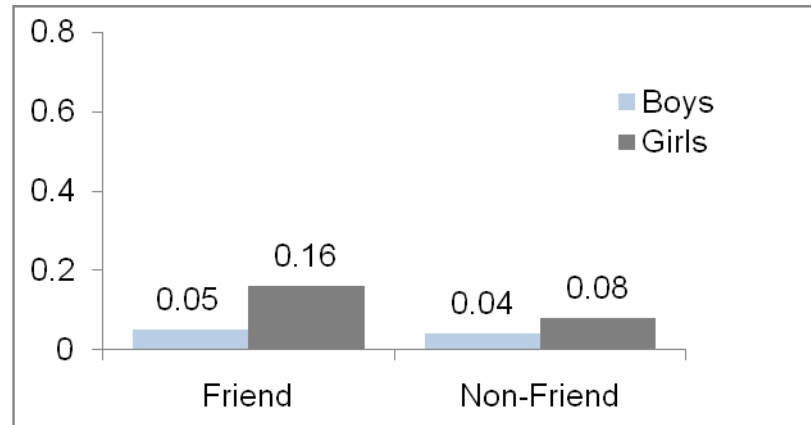
Figure 9. Variations in initial scared display as a function of gender and friendship status with the victim.

Initial emotional display: Neutral. Main effects of gender, $F(1, 345) = 13.20$, $p < .001$, $\eta_p^2 = .04$, and friendship status, $F(1, 345) = 368.38$, $p < .001$, $\eta_p^2 = .52$, also emerged for looking neutral initially. Results also revealed a significant gender by friendship status interaction (see Figure 10), $F(1, 345) = 7.62$, $p = .006$, $\eta_p^2 = .02$. Simple effects analyses showed gender differences for looking neutral but only when the situation involved a friend, $F(1, 345) = 24.29$, $p < .001$, reflecting that boys reported that they would be more likely than girls to look neutral if the situation involved a friend. Both boys ($F(1, 345) = 115.97$, $p < .001$) and girls ($F(1, 345) = 288.34$, $p < .001$) were more likely to report that they would look neutral if the situation involved a non-friend.
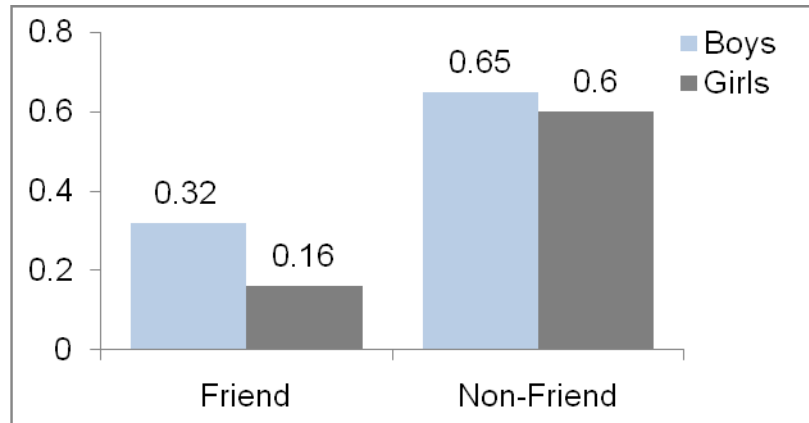
Figure 10. Variations in initial neutral display as a function of gender and friendship status with the victim.

Initial emotional display: Angry. When it came to looking angry initially, only a main effect of friendship status emerged ($F(1, 345) = 390.67, p < .001, \eta_p^2 = .53$). Students were more likely to report that they would look angry if the situation involved a friend ($M = .58, SD = .36$) compared with a non-friend ($M = .16, SD = .24$).

Initial emotional display: Sad. A significant main effect for gender emerged for looking sad ($F(1, 345) = 29.42, p < .001, \eta_p^2 = .08$) such that girls ($M = .09, SD = .15$) were more likely to show feelings of sadness than boys ($M = .02, SD = .07$).

To summarize, results showed that bystanders' initial emotional responses to hypothetical bullying situations varied by friendship status with the victim and gender. Although several statistically significant interactions were obtained (i.e., initially feeling and showing neutral and happy emotion, feeling anger, showing sadness), effect sizes were very small (η_p^2 ranging from .02 to .03) suggesting that emphasis should be placed on interpreting main effects. With effect sizes suggesting only practical significance, results indicated that girls reported feeling sad and scared initially more often than boys and that they would be more willing than boys to show their sadness. It also seems that bystanders were more likely to report that they

would feel sad initially in response to a non-friend being bullied and show anger in response to a non-friend being bullied. In the latter case, a moderate effect size was obtained.

Variations in level of emotion as a function of gender and friendship status. A series of 2 (gender) X 2 (friendship status) repeated measures ANOVAs were conducted to determine whether bystanders' level of emotion (i.e., anger, happiness, sadness, and fear) varied as a function of gender and friendship status with the victim. Means and standard deviations are presented in Table 14.

Table 14

Mean Level of Emotion Experienced Ratings and Standard Deviations

	Friend					Non-Friend			
	Boy		Girl			Boy		Girl	
Emotion	*M*	*SD*	*M*	*SD*		*M*	*SD*	*M*	*SD*
Sad	1.85	0.68	2.54	0.71		1.51	0.50	1.95	0.60
Angry	3.08	0.75	3.20	0.61		1.90	0.69	2.16	0.67
Scared[†]	1.55	0.62	2.22	0.74		1.32	0.47	1.78	0.60
Happy[†]	1.07	0.20	1.04	0.16		1.50	0.62	1.38	0.58

† Denotes variables for which assumptions were violated.

Level of emotion: Sad. For sad ratings, main effects of gender, $F(1, 346) = 87.26$, $p < .001$, $\eta_p^2 = .20$, and friendship status, $F(1, 346) = 206.67$, $p < .001$, $\eta_p^2 = .37$, were modified by a significant interaction, $F(1, 346) = 15.29$, $p < .001$, $\eta_p^2 = .04$. Simple effects analyses used to explore the interaction term (see Figure 11) revealed significant gender differences when the

situation involved a friend, $F(1, 346) = 83.58$, $p < .001$, as well as when the situation involved a non-friend, $F(1, 346) = 51.93$, $p < .001$. In both situations, girls reported experiencing more sadness than boys. Moreover, both boys ($F(1, 346) = 46.94$, $p < .001$) and girls ($F(1, 346) = 200.61$, $p < .001$) experienced more sadness when the situation involved a friend.
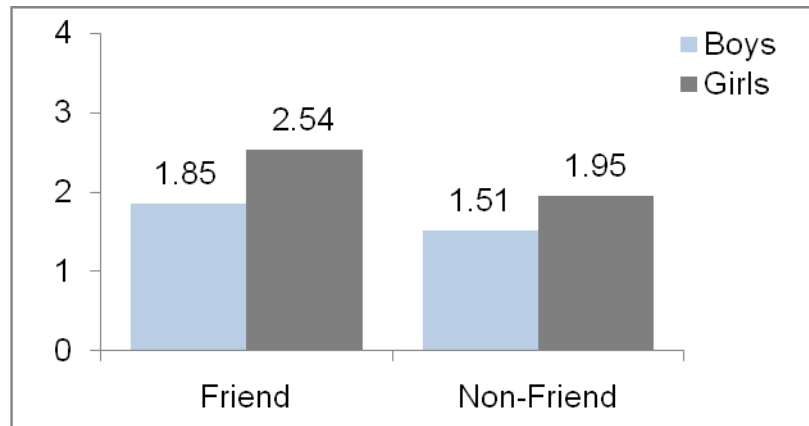
Figure 11. Variations in sad level of emotion ratings as a function of gender and friendship status with the victim.

Level of emotion: Scared. Similar to the pattern of results for sad ratings, the main effects of gender, $F(1, 346) = 93.72$, $p < .001$, $\eta_p^2 = .21$, and friendship status, $F(1, 346) = 99.05$, $p < .001$, $\eta_p^2 = .22$, were significant for scared ratings. Simple effects analyses used to explore a significant gender by friendship status interaction (see Figure 12), $F(1, 346) = 9.68$, $p = .002$, $\eta_p^2 = .03$, revealed gender differences in scared ratings in situations involving friends, $F(1, 346) = 80.93$, $p < .001$, as well as those involving non-friends, $F(1, 346) = 59.73$, $p < .001$, with girls endorsing more fear than boys in both situations. Both boys ($F(1, 346) = 20.06$, $p < .001$) and girls ($F(1, 346) = 102.39$, $p < .001$) reported experiencing more fear when the situation involved a friend.
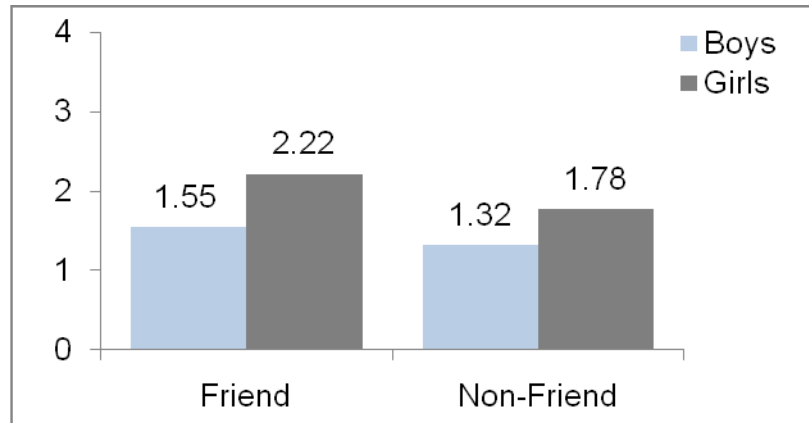
Figure 12. Variations in scared level of emotion ratings as a function of gender and friendship status with the victim.

Level of emotion: Angry. For angry ratings, main effects of gender, $F(1, 346) = 10.73$, $p = .001$, $\eta_p^2 = .03$, and friendship status, $F(1, 346) = 613.35$, $p < .001$, $\eta_p^2 = .64$, were significant. Girls ($M = 2.68$, $SD = .50$) reported feeling more angry than boys ($M = 2.49$, $SD = .59$) and anger was rated higher when the situation involved a friend (friend: $M = 3.15$, $SD = .67$; non-friend: $M = 2.05$, $SD = .69$. The gender by friendship status interaction did not reach significance.

Level of emotion: Happy. Finally, a significant main effect of friendship status, $F(1, 346) = 155.12$, $p < .001$, $\eta_p^2 = .31$ was obtained for happy ratings. Happiness was rated higher when the situation involved a non-friend (friend: $M = 1.05$, $SD = .18$; non-friend: $M = 1.43$, $SD = .60$).

To summarize, as bystanders, early adolescents reported feeling angrier when the situation involved a victimized friend and happier when the situation involved a victimized non-friend. In both cases, main effects of friendship status showed sizeable effect sizes. By comparison, a main effect of gender showing that girls reported feeling angrier than boys revealed only a small effect size as did friendship status by gender interactions for level of sad and scared.

Variations in intention to dissemble as a function of gender and friendship status. As can be seen by inspecting intention to dissemble ratings provided in Table 15, mean ratings were generally below 2.00 suggesting that early adolescents reported that they would hide rather than show their feelings in bullying situations involving peers regardless of whether friends or non-friends were the victims. A series of 2 (gender) X 2 (friendship status) repeated measures ANOVAs were conducted to determine whether bystanders' intention to dissemble their emotions (i.e., anger, happiness, sadness, and fear) varied as a function of gender and friendship status with the victim.

Table 15

Mean Intention to Dissemble Ratings and Standard Deviations

| | Friend | | | | Non-Friend | | | |
| | Boys | | Girls | | Boys | | Girls | |
Emotion	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Sad†	1.52	0.60	2.08	0.73	1.31	0.46	1.64	0.54
Angry	2.61	0.83	2.73	0.72	1.66	0.66	1.85	0.70
Scared†	1.39	0.56	1.89	0.69	1.24	0.48	1.55	0.55
Happy†	1.23	0.52	1.15	0.39	1.51	0.65	1.40	0.62

† Denotes variables for which assumptions were violated.

Intention to dissemble: Sad. A significant main effect of gender, $F(1, 346) = 59.36$, $p <$ .001, $\eta_p^2 = .15$, for intention to dissemble sad feelings emerged The main effect of friendship status was also significant, $F(1, 346) = 112.14$, $p < .001$, $\eta_p^2 = .25$. Simple effects analyses were

used to explore a significant gender by friendship status interaction (see Figure 13), $F(1, 346) =$ 14.18, $p < .001$, $\eta_p^2 = .04$, and revealed gender differences in early adolescents' intention to dissemble sadness when the situation involves a friend, $F(1, 346) = 57.36$, $p < .001$, and a non-friend, $F(1, 346) = 35.21$, $p < .001$. Across situations, boys were more likely to dissemble their sad feelings than girls. Both boys ($F(1, 346) = 19.96$, $p < .001$) and girls ($F(1, 346) = 123.65$, $p < .001$) were more likely to dissemble sadness when the situation involved a non-friend.
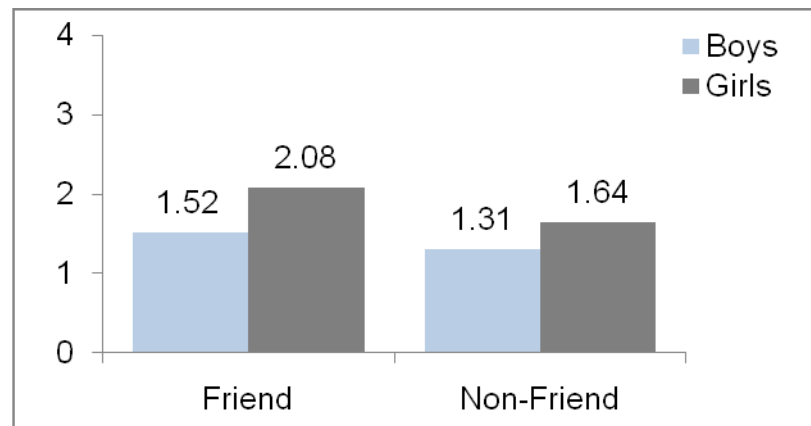
Figure 13. Variations in intention to dissemble sad ratings as a function of gender and friendship status with the victim.

Intention to dissemble: Scared. A similar pattern of results was obtained for early adolescents' intention to dissemble fear. Main effects of gender, $F(1, 346) = 59.36$, $p < .001$, $\eta_p^2 = .15$, and friendship status, $F(1, 346) = 112.14$, $p < .001$, $\eta_p^2 = .25$, were both significant. A significant gender by friendship status interaction (see Figure 14), $F(1, 346) = 14.18$, $p < .001$, $\eta_p^2 = .04$, revealed significant gender differences. Specifically, simple effects analyses indicated that in situations involving friends ($F(1, 346) = 52.41$, $p < .001$) as well as non-friends ($F(1, 346) = 29.10$, $p < .001$), boys' intention to dissemble fear was greater than girls' intention to

dissemble fear. In addition, boys ($F(1, 346) = 9.42$, $p = .002$) and girls ($F(1, 346) = 74.05$, $p <$ .001) were more likely to hide their feelings when the situation involved a non-friend.
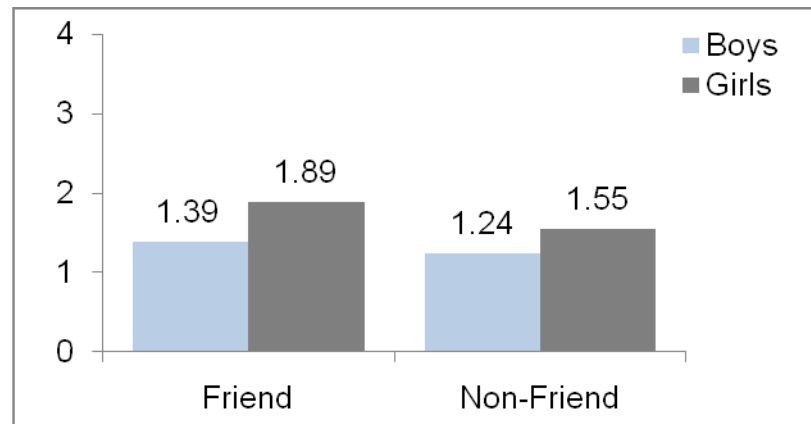
Figure 14. Variations in intention to dissemble scared ratings as a function of gender and friendship status with the victim.

Intention to dissemble: Angry. For intention to dissemble anger, significant main effects of gender, $F(1, 346) = 5.59$, $p = .019$, $\eta_p^2 = .02$, and friendship status, $F(1, 346) = 423.16$, $p < .001$, $\eta_p^2 = .55$, emerged. Girls ($M = 2.29$, $SD = .59$) were more likely than boys ($M = 2.13$, $SD = .62$) to show their feelings of anger. Early adolescents were more likely to hide their anger if the situation involved a non-friend (friend: $M = 2.68$, $SD = .77$; non-friend: $M = 1.77$, $SD = .69$).

Intention to dissemble: Happy. A main effect of friendship status also emerged for intention to dissemble happiness, $F(1, 346) = 59.76$, $p < .001$, $\eta_p^2 = .15$, reflecting that although early adolescents are generally likely to hide feeling happy, they are more inclined to hide positive feelings when the situation involves a friend (friend: $M = 1.18$, $SD = .45$; non-friend: $M = 1.45$, $SD = .63$).

To summarize, results generally showed that bystanders' intention to dissemble their emotions varied as a function of both gender and friendship status. Specifically, early adolescents reported being more willing to show anger when the situation involved a friend and

were more likely to show happiness when the situation involved a peer who was not a friend.

Effect sizes for these main effects were moderate for anger but only within the "practically"

significant range for happiness. Statistically significant interactive effects for sad and scared

ratings were also obtained but captured only marginal effects sizes.

   Variations in level of dissemblance as a function of gender and friendship status. As

can be seen in Table 16, early adolescents reported that they would experience negative

emotions (sad, angry, scared) with greater intensity than they were willing to display.

Table 16

Mean Level of Dissemblance and Standard Deviations

	Friend					Non-Friend			
	Boys		Girls			Boys		Girls	
Emotion	*M*	*SD*	*M*	*SD*		*M*	*SD*	*M*	*SD*
Sad[†]	-0.33	0.51	-0.46	0.57		-0.20	0.54	-0.31	0.53
Angry[†]	-0.47	0.52	-0.47	0.61		-0.24	0.62	-0.32	0.57
Scared[†]	-0.16	0.50	-0.33	0.55		-0.08	0.52	-0.23	0.48
Happy[†]	0.15	0.52	0.11	0.36		0.01	0.45	0.02	0.47

† Denotes variables for which assumptions were violated.

   Level of dissemblance: Sad, angry, scared. Main effects of friendship status were

significant for each negative emotion (sad: $F(1, 346) = 24.02$, $p < .001$, $\eta_p^2 = .07$; angry: $F(1,$

$346) = 36.19$, $p < .001$, $\eta_p^2 = .10$; scared: $F(1, 346) = 9.78$, $p < .001$, $\eta_p^2 = .03$). In all instances,

early adolescents' experienced more negative emotion than they intended to show when the

situation involved a friend than a non-friend (sad friend: $M = -.41$, $SD = .55$ versus sad non-friend: $M = -.26$, $SD = .53$; angry friend: $M = -.47$, $SD = .57$ versus angry non-friend: $M = -.29$, $SD = .59$; scared friend: $M = -.26$, $SD = .54$ versus scared non-friend: $M = -.17$, $SD = .50$).

Significant main effects of gender also emerged for level of dissemblance for sad, $F(1, 346) = 5.57$, $p = .017$, $\eta_p^2 = .02$, and scared, $F(1, 346) = 11.78$, $p = .001$, $\eta_p^2 = .03$. Girls were more likely than boys to experience more sadness (boys: $M = -.27$, $SD = .44$; girls: $M = -.39$, $SD = .49$) and fear (boys: $M = -.12$, $SD = 43$; girls: $M = -.28$, $SD = .44$) than they showed.

Level of dissemblance: Happy. For level of dissemblance of happiness, only a main effect of friendship status, $F(1, 346) = 17.17$, $p < .001$, $\eta_p^2 = .05$, emerged. In this instance, results indicated that early adolescent bystanders express more happiness than they experience when the situation involved a friend (friend: $M = .13$, $SD = .43$; non-friend: $M = .02$, $SD = .46$). By comparison, inspection of the means reveals that when the situation involved a non-friend, early adolescents express as much happiness as they experienced.

To summarize, in response to hypothetical bullying situations, bystanders' level of dissemblance scores varied by friendship status and gender although effects sizes were generally small. In particular, main effects of friendship status showed that bystanders reported that they would be more likely to show more negative emotion including anger, sadness, and fear than they experienced when the situation involved a friend ($\eta_p^2 = .10$, .07, and .03, respectively). Although statistically significant, the main effect of friendship status for level of dissemblance of happiness was not practically significant. Furthermore, inspection of level of emotion and intention to dissemble mean differences used to calculate level of dissemblance suggested only that the *magnitude* of the difference was greater when the situation involved a friend. Results showed that bystanders, who on average reported feeling negligible happiness when the situation

involved a victimized friend, reported showing more happiness than they actually thought they would experience.

Question 4: What are the links between early adolescent bystanders' social problem-solving and emotion processes in hypothetical bullying situations? In the final series of analyses, hierarchical regression was used to determine whether emotion processes (i.e., level of emotion and intention to dissemble) predicted early adolescent bystanders' strategies and goals in bullying situations involving victimized peers. Of primary interest was the extent to which bystanders' strategies and goals (dependent variables) were predicted by level of emotion ratings (i.e., the extent to which early adolescents reported feeling happy, angry, sad, or scared) and intention to dissemble ratings (i.e., ratings of bystanders intention to show or hide each emotion). Level of dissemblance was not included in these analyses given its mathematical and conceptual overlap with the aforementioned variables.

Independent variables included in the analyses were entered in three blocks were gender, level of emotion (happy, angry, sad, scared), and intention to dissemble (happy, angry, sad, scared). Gender, entered first in order to account for its contribution, was held constant in order to determine how well level of emotion and intention to dissemble predicted strategies and goals. In order to compare results across friendship status conditions, analyses were run separately for vignettes involving friends versus non-friends. Given the large number of regression equations, a more stringent significance level of $p < .01$ was used to determine whether gender, level of emotion, and intention to dissemble accounted for a statistically significant portion of the variance thereby contributing to the prediction of individual strategies and goals.

Predicting strategies from emotion processes. Analyses in this section tested the contribution of three blocks of variables (i.e., gender, level of emotion, and intention to

dissemble) to the prediction of early adolescent bystanders' strategies in situations involving friends with parallel analyses examining the prediction of strategies in situations involving non-friends. Results are presented for each strategy in turn.

Adult involvement. Results of hierarchical regression revealed that gender (block 1) contributed significantly to the prediction of adult involvement (F_{change} (1, 347) = 16.19, $p <$ .001), accounting for 5% of the variance when the situation involved a friend (Table 17). In addition, the block of variables representing level of emotion (block 2) contributed significantly to the prediction of adult involvement over and above gender (F_{change} (4, 343) = 11.88, $p < $.001) accounting for an additional 12% of the variance. Together, gender and level of emotion accounted for 16% of the variance. However, variables representing intention to dissemble (block 3) did not contribute significantly to the prediction of adult involvement (F_{change} (4, 339) =.66, p = .62).

Similarly, when the situation involved a non-friend (Table 18), both gender (F_{change} (1, 346) = 22.20, $p < $.001) and level of emotion (F_{change} (4, 342) = 26.60, $p < $.001) contributed significantly to the prediction of adult involvement, but intention to dissemble did not (F_{change} (4, 338) = 1.29, p = .27). Moreover, level of emotion explained a substantial portion of additional variance (22%) when the situation involved a non-friend.

In addition to gender, which emerged as a significant predictor in both situations showing that girls endorsed adult involvement more than boys, among level of emotion variables, high angry and scared ratings, and low happy ratings emerged as significant predictors when the situation involved a non-friend. When the situation involved a friend, only high scared ratings were associated with adult involvement.

Table 17

Summary of Hierarchical Regression Analysis for Variables Predicting Adult Involvement

(Strategy) When the Situation Involved a Friend

Variable		R^2	ΔR^2	β	t
Block 1		.05	.05		
Gender				.21	4.02***
Block 2		.16	.12		
Gender				.04	.66
Level of Emotion Experienced	Sad			.06	.90
	Angry			.05	.83
	Scared			.32	4.68***
	Happy			-.02	-.30
Block 3		.17	.01		
Gender				.03	.57
Level of Emotion Experienced	Sad			.13	1.37
	Angry			.06	.71
	Scared			.22	2.26*
	Happy			-.01	-.19
Intention to Dissemble	Sad			-.11	-1.05
	Angry			-.003	-.04
	Scared			.16	1.58
	Happy			-.02	-.33

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

Table 18

Summary of Hierarchical Regression Analysis for Variables Predicting Adult Involvement

(Strategy) When the Situation Involved a Non-Friend

Variable		R^2	ΔR^2	β	t
Block 1		.06	.06		
Gender				.25	4.71***
Block 2		.28	.22		
Gender				.08	1.65
Level of Emotion Experienced	Sad			.11	1.59
	Angry			.19	3.15**
	Scared			.18	2.86**
	Happy			-.17	-3.28**
Block 3		.29	.01		
Gender				.08	1.47
Level of Emotion Experienced	Sad			.11	1.33
	Angry			.18	2.20*
	Scared			.13	1.67
	Happy			-.08	-1.08
Intention to Dissemble	Sad			-.001	-.01
	Angry			-.002	-.03
	Scared			.11	1.24
	Happy			-.14	-1.95

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

Peer involvement. Regression analyses revealed that gender did not contribute significantly to the prediction of peer involvement (F_{change} (1, 347) = 3.29, p = .07) when the situation involved a friend (Table 19). However, level of emotion experienced (block 2) contributed significantly to the prediction of peer involvement (F_{change} (4, 343) = 14.40, p < .001), accounting for 14% of the variance and 15% of the shared variance. Variables representing intention to dissemble (block 3) also did not contribute significantly to the prediction of peer involvement gender (F_{change} (4, 339) = 2.65, p = .03) when the situation involved a friend.

When the situation involved a non-friend (Table 20), gender (F_{change} (1, 346) = 8.54, p < .01), level of emotion experienced (F_{change} (4, 342) = 48.14, p < .001), and intention to dissemble (F_{change} (4, 338) = 3.21, p < .01) each contributed significantly to the prediction of peer involvement with level of emotion experienced, in particular, accounting for a sizable portion of additional variance (35%).

Thus, when the situation involved a friend, among both level of emotion and intention to dissemble variables, high angry ratings emerged as significant predictors. However, when the situation involved a non-friend, gender (showing that girls endorsed peer involvement more than boys), high angry and low happy ratings on the level of emotion as well as high intention to dissemble sad ratings were associated with peer involvement.

Table 19

Summary of Hierarchical Regression Analysis for Variables Predicting Peer Involvement (Strategy) When the Situation Involved a Friend

Variable		R^2	ΔR^2	β	t
Block 1		.01	.01		
Gender				.10	1.81
Block 2		.15	.14		
Gender				.07	1.17
Level of Emotion Experienced	Sad			-.03	-.45
	Angry			.36	6.67***
	Scared			.02	.22
	Happy			-.07	-1.42
Block 3		.18	.03		
Gender				.04	.74
Level of Emotion Experienced	Sad			-.02	-.16
	Angry			.22	2.77**
	Scared			.001	.01
	Happy			-.06	-1.18
Intention to Dissemble	Sad			-.002	-.02
	Angry			.20	2.45*
	Scared			.05	.46
	Happy			-.06	-1.11

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

Table 20

Summary of Hierarchical Regression Analysis for Variables Predicting Peer Involvement (Strategy) When the Situation Involved a Non-Friend

Variable		R^2	ΔR^2	β	t
Block 1		.02	.02		
Gender				.16	2.92**
Block 2		.38	.35		
Gender				.02	.41
Level of Emotion Experienced	Sad			.11	1.72
	Angry			.49	8.57***
	Scared			-.02	-.41
	Happy			-.12	-2.52*
Block 3		.40	.02		
Gender				.003	.07
Level of Emotion Experienced	Sad			.05	.60
	Angry			.44	5.78***
	Scared			-.03	-.47
	Happy			-.05	-.75
Intention to Dissemble	Sad			.16	2.04*
	Angry			.07	1.01
	Scared			-.03	-.37
	Happy			-.10	-1.59

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

Talk to bully. Results indicated that blocks of variables representing gender, level of emotion, and intention to dissemble each contributed significantly to the prediction of talking to the bully in situations involving both friends (Table 21) and non-friends (Table 22). Gender accounted for 5% of the variance when the situation involved a friend (F_{change} (1, 347) = 17.07, p < .001) and when the situation involved a non-friend (F_{change} (1, 346) = 16.69, p < .001). Variables representing level of emotion experienced accounted for 10% of the variance when the situation involved a friend (F_{change} (1, 343) = 10.02, p < .001) and 33% of the variance when the situation involved a non-friend (F_{change} (4, 342) = 45.11, p < .001). In situations involving friends versus non-friends, the block of variables representing intention to dissemble accounted for 5% (F_{change} (4, 339) = 5.13, p < .01) and 4% of the variance (F_{change} (4, 338) = 5.44, p < .001), respectively. All three blocks combined explained 20% of the shared variance in the strategy talk to the bully when the situation involved a friend, and 41% of the shared variance when the situation involved a non-friend.

Thus, gender emerged as a significant predictor of the likelihood that bystanders (i.e., girls > boys) would talk to the bully in situations involving both friends and non-friends as victims. High angry ratings emerged as significant predictors when the situation involved a friend, among both level of emotion and intention to dissemble variables. However, when the situation involved a non-friend, in addition to high angry ratings on both level of emotion and intention to dissemble, when the situation involved a non-friend, low happy ratings on the level of emotion as well as high intention to dissemble sad ratings were associated with talking to the bully.

Table 21

Summary of Hierarchical Regression Analysis for Variables Predicting Talk to Bully (Strategy) When the Situation Involved a Friend

Variable		R^2	ΔR^2	β	t
Block 1		.05	.05		
Gender				.22	4.13***
Block 2		.15	.10		
Gender				.18	3.10**
Level of Emotion Experienced	Sad			.13	1.79
	Angry			.27	4.92***
	Scared			-.10	-1.48
	Happy			-.05	-.99
Block 3		.20	.05		
Gender				.15	2.65**
Level of Emotion Experienced	Sad			.09	.93
	Angry			.09	1.10
	Scared			-.12	-1.21
	Happy			-.07	-1.23
Intention to Dissemble	Sad			.08	.80
	Angry			.25	3.07**
	Scared			.04	.41
	Happy			-.02	-.34

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

Table 22

Summary of Hierarchical Regression Analysis for Variables Predicting Talk to Bully (Strategy) When the Situation Involved a Non-Friend

Variable		R^2	ΔR^2	β	t
Block 1		.05	.05		
Gender				.22	4.09***
Block 2		.38	.33		
Gender				.08	1.70
Level of Emotion Experienced	Sad			.04	.67
	Angry			.39	6.90***
	Scared			.06	.92
	Happy			-.24	-5.00***
Block 3		.41	.04		
Gender				.06	1.33
Level of Emotion Experienced	Sad			-.02	-.27
	Angry			.29	3.94***
	Scared			.05	.68
	Happy			-.17	-2.63**
Intention to Dissemble	Sad			.17	2.16*
	Angry			.14	2.00*
	Scared			-.04	-.53
	Happy			-.10	-1.57

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

Gain information. Both gender (F_{change} (1, 347) = 17.78, $p < .001$) and level of emotion (F_{change} (4, 343) = 4.30, $p < .01$) each contributed significantly to the prediction of gain information accounting for 5% and 8% of the variance, respectively, when the situation involved a friend (Table 23). However, variables representing intention to dissemble (block 3) did not contribute significantly to the prediction of gain information (F_{change} (4, 339) = 2.22, $p = .07$).

When the situation involved a non-friend (Table 24), all three blocks of variables contributed significant to the prediction of gain information (gender: F_{change} (1, 346) = 21.94, $p < .001$; level of emotion: (F_{change} (4, 342) = 28.54, $p < .001$; intention to dissemble: F_{change} (4, 338) = 5.57, $p < .001$) with gender, level of emotion, and intention to dissemble explaining 6%, 24%, and 4% of the variance, respectively, together accounting for 34% of the shared variance when combined.

In addition to gender, which emerged as a significant predictor (i.e., girls giving higher endorsement than boys) in both situations (friend and non-friend), when the situation involved a friend, only high level of angry ratings were associated with gaining information. However, when the situation involved a non-friend, high level of sad and angry ratings, low level of happy ratings, and high intention to dissemble angry ratings were associated with gaining information.

Table 23

Summary of Hierarchical Regression Analysis for Variables Predicting Gain Information

(Strategy) When the Situation Involved a Friend

Variable		R^2	ΔR^2	β	t
Block 1		.05	.05		
Gender				.22	4.22***
Block 2		.09	.05		
Gender				.15	2.48*
Level of Emotion Experienced	Sad			.12	1.64
	Angry			.13	2.33*
	Scared			.02	.21
	Happy			-.04	-.79
Block 3		.12	.02		
Gender				.14	2.31*
Level of Emotion Experienced	Sad			.04	.43
	Angry			.04	.47
	Scared			.02	.16
	Happy			-.08	-1.34
Intention to Dissemble	Sad			.12	1.11
	Angry			.12	1.39
	Scared			-.001	-.01
	Happy			.05	.90

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

Table 24

Summary of Hierarchical Regression Analysis for Variables Predicting Gain Information

(Strategy) When the Situation Involved a Non-Friend

		R^2	ΔR^2	β	t
Block 1		.06	.06		
Gender				.24	4.68***
Block 2		.30	.24		
Gender				.11	2.19*
Level of Emotion Experienced	Sad			.15	2.17*
	Angry			.30	4.98***
	Scared			.02	.36
	Happy			-.15	-2.97**
Block 3		.34	.04		
Gender				.09	1.91
Level of Emotion Experienced	Sad			.11	1.44
	Angry			.15	1.94
	Scared			.03	.36
	Happy			-.07	-1.09
Intention to Dissemble	Sad			.13	1.48
	Angry			.21	2.77***
	Scared			-.05	-.55
	Happy			-.11	-1.63

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

Hostility/retaliation. Results indicated that gender (F_{change} (1, 347) = 28.50, p < .001), level of emotion (F_{change} (4, 343) = 12.72, p < .001), and intention to dissemble (F_{change} (4, 339) = 6.21, p < .001) each contributed significantly to the prediction of hostility/retaliation accounting for 8%, 12%, and 6% of the variance, respectively, when the situation involved a friend (Table 25). When the situation involved a non-friend (Table 26), blocks of variables representing gender (F_{change} (1, 346) = 26.47, p < .001) and level of emotion (F_{change} (4, 342) = 17.16, p < .001) contributed significantly to the prediction of hostility/retaliation level of emotion (intention to dissemble: F_{change} (4, 338) = 1.00, p = .41). Combined, all three blocks accounted for 24% of the shared variance in hostility/retaliation when the situation involved a non-friend. However, when the situation involved a non-friend, only gender and level of emotion predicted hostility/retaliation accounting for 7% and 16% of the variance, respectively. When combined, gender and level of emotion accounted for 23% of the shared variance.

Once again, gender emerged as a significant predictor (i.e., boys gave higher endorsement of hostility/retaliation than girls) in situations involving friends and non-friends. Across situations, high level of anger and happiness ratings also emerged as significant predictors of hostility/retaliation. However, when the situation involved a non-friend, low level of sadness ratings also predicted hostility/retaliation. By comparison, when the situation involved a friend, low level of scared ratings and high intention to dissemble anger ratings were also significant predictors of hostility/retaliation.

Table 25

Summary of Hierarchical Regression Analysis for Variables Predicting Hostility/Retaliation (Strategy) When the Situation Involved a Friend

Variable		R^2	ΔR^2	β	t
Block 1		.08	.08		
Gender				-.28	-5.34***
Block 2		.20	.12		
Gender				-.17	-3.13*
Level of Emotion Experienced	Sad			-.04	-.50
	Angry			.30	5.79***
	Scared			-.23	-3.49**
	Happy			.13	2.48*
Block 3		.25	.06		
Gender				-.21	-3.78***
Level of Emotion Experienced	Sad			-.04	-.44
	Angry			.08	.99
	Scared			-.15	-1.60
	Happy			.15	2.85**
Intention to Dissemble	Sad			.05	.52
	Angry			.32	4.07***
	Scared			-.09	-.94
	Happy			-.09	-1.83

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

Table 26

Summary of Hierarchical Regression Analysis for Variables Predicting Hostility/Retaliation

(Strategy) When the Situation Involved a Non-Friend

Variable		R^2	ΔR^2	β	t
Block 1		.07	.07		
Gender				-.27	-5.15***
Block 2		.23	.16		
Gender				-.25	-4.83***
Level of Emotion Experienced	Sad			-.15	-2.08*
	Angry			.48	7.54***
	Scared			-.06	-.95
	Happy			.28	5.33***
Block 3		.24	.01		
Gender				-.25	-4.75***
Level of Emotion Experienced	Sad			-.15	-1.78
	Angry			.40	4.71***
	Scared			.02	.24
	Happy			.28	3.84***
Intention to Dissemble	Sad			.02	.22
	Angry			.12	1.49
	Scared			-.15	-1.68
	Happy			.01	.12

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

Prosocial to victim. Results indicated that gender (F_{change} (1, 347) = 88.30, $p < .001$) and

level of emotion (F_{change} (4, 343) = 17.98, $p < .001$) both contributed significantly to the

prediction of hostility/retaliation when the situation involved a friend (intention to dissemble:

F_{change} (4, 339) = .80, $p = .53$) with gender accounting for 20% of the variance and level of

emotion accounting for 14% of the variance (Table 27). When combined, gender and level of

emotion accounted for 34% of the shared variance.

When the situation involved a non-friend (Table 28), all three blocks contributed

significantly to the prediction of prosocial to the victim with gender accounting for 13% of the

variance (F_{change} (1, 346) = 51.94, $p < .001$), level of emotion accounting for 41% of the variance

(F_{change} (4, 342) = 77.26, $p < .001$), and intention to dissemble accounting for 2% of the variance

(F_{change} (4, 338) = 3.45, $p < .01$). When combined, all three blocks explained a total of 56% of

the shared variance.

In addition to gender which showed higher endorsement of prosocial strategies for girls,

among level of emotion variables, high sad ratings, high angry ratings, and low happy ratings

emerged as a significant predictors in situations involving both friends and non-friends. High

scared ratings (level of emotion) also emerged as a significant predictor when the situation

involved a non-friend.

Table 27

Summary of Hierarchical Regression Analysis for Variables Predicting Prosocial to Victim (Strategy) When the Situation Involved a Friend

Variable		R^2	ΔR^2	β	t
Block 1		.20	.20		
Gender				.45	9.40***
Block 2		.34	.14		
Gender				.31	6.09***
Level of Emotion Experienced	Sad			.24	3.79***
	Angry			.18	3.69***
	Scared			.03	.55
	Happy			-.11	-2.43*
Block 3		.35	.01		
Gender				.30	5.98***
Level of Emotion Experienced	Sad			.20	2.36*
	Angry			.16	2.24*
	Scared			.001	.02
	Happy			-.13	-2.75**
Intention to Dissemble	Sad			.05	.50
	Angry			.02	.27
	Scared			.04	.48
	Happy			.04	.84

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

Table 28

Summary of Hierarchical Regression Analysis for Variables Predicting Prosocial to Victim

(Strategy) When the Situation Involved a Non-Friend

Variable		R^2	ΔR^2	β	t
Block 1		.13	.13		
Gender				.36	7.21***
Block 2		.54	.41		
Gender				.18	4.36***
Level of Emotion Experienced	Sad			.14	2.53*
	Angry			.35	7.07***
	Scared			.12	2.27*
	Happy			-.26	-6.41***
Block 3		.56	.02		
Gender				.16	4.07***
Level of Emotion Experienced	Sad			.12	1.84
	Angry			.29	4.49***
	Scared			.07	1.07
	Happy			-.21	-3.78***
Intention to Dissemble	Sad			.07	.98
	Angry			.07	1.16
	Scared			.07	.98
	Happy			-.08	-1.45

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

Direct intervention. Results of regression analyses indicated that when the situation involved a friend (Table 29), level of emotion (F_{change} (4, 343) = 15.92c) and intention to dissemble (F_{change} (4, 339) = 6.62, $p < .001$) both contributed significantly to the prediction of direct intervention (gender: F_{change} (1, 347) = 3.15, $p = .08$) with level of emotion accounting for 16% of the variance and intention to dissemble accounting for 6% of the variance. When combined, all three blocks accounted for 23% of the shared variance.

When the situation involved a non-friend (Table 30), all three blocks contributed significantly to the prediction of direct intervention with gender accounting for 4% of the variance (F_{change} (1, 346) = 15.48, $p < .001$), level of emotion accounting for 43% of the variance (F_{change} (4, 342) = 69.76, $p < .001$), and intention to dissemble accounting for 3% of the variance (F_{change} (4, 338) = 4.72, $p < .01$). When combined, all three blocks explained a total of 50% of the shared variance.

High angry ratings, low scared ratings, and high intention to dissemble anger ratings emerged as significant predictions when the situation involved a friend. However, when the situation involved a non-friend, gender (showing higher endorsement among girls), high angry, low happy, high intention to dissemble anger, and low intention to dissemble happiness ratings emerged as significant predictors of direct intervention.

Table 29

Summary of Hierarchical Regression Analysis for Variables Predicting Direct Intervention (Strategy) When the Situation Involved a Friend

Variable		R^2	ΔR^2	β	t
Block 1		.01	.01		
Gender				.10	1.78
Block 2		.16	.16		
Gender				.10	1.75
Level of Emotion Experienced	Sad			.05	.76
	Angry			.36	6.73***
	Scared			-.15	-2.21*
	Happy			-.08	-1.56
Block 3		.23	.06		
Gender				.07	1.17
Level of Emotion Experienced	Sad			.05	.56
	Angry			.12	1.58
	Scared			-.11	-1.21
	Happy			-.07	-1.37
Intention to Dissemble	Sad			.04	.36
	Angry			.33	4.19***
	Scared			-.02	-.16
	Happy			-.06	-1.20

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

Table 30

Summary of Hierarchical Regression Analysis for Variables Predicting Direct Intervention

(Strategy) When the Situation Involved a Non-Friend

Variable		R^2	ΔR^2	β	t
Block 1		.04	.04		
Gender				.21	3.93***
Block 2		.47	.43		
Gender				.09	2.08*
Level of Emotion Experienced	Sad			.03	.52
	Angry			.54	10.30***
	Scared			-.05	-.99
	Happy			-.24	-5.54***
Block 3		.50	.03		
Gender				.08	1.76
Level of Emotion Experienced	Sad			.01	.13
	Angry			.44	6.33***
	Scared			-.08	-1.27
	Happy			-.16	-2.77***
Intention to Dissemble	Sad			.08	1.05
	Angry			.14	2.14*
	Scared			.03	.40
	Happy			-.12	-1.99*

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

Enabling. When the situation involved a friend (Table 31), both gender (F_{change} (1, 347) = 12.43, $p < .001$) and level of emotion (F_{change} (4, 343) = 16.37, $p < .001$) contributed significantly to the prediction of enabling (intention to dissemble: F_{change} (4, 339) = 1.44, $p = .22$). Together, gender and level of emotion accounted for 19% of the shared variance and gender, on its own accounting for 4% of the variance, and level of emotion account for 16% of the variance.

When the situation involved a non-friend (Table 32), all three blocks contributed significantly to the prediction of enabling strategies, accounting for 51% of the shared variance when combined. Gender accounted for 2% of the variance (F_{change} (1, 346) = 7.67, $p < .01$), level of emotion accounted for 44% of the variance (F_{change} (4, 342) = 70.55, $p < .001$), and intention to dissemble accounted for 4% of the variance (F_{change} (4, 338) = 7.29, $p < .001$).

Thus, gender was a significant predictor of enabling when the situation involved a friend or a non-friend (i.e., boys endorsed enabling more strongly than girls). Among level of emotion variables, low angry ratings and high happy ratings emerged as significant predictors in situations involving both friends and non-friends. However, when the situation involved a non-friend, among high intention to dissemble variables, low scared ratings and high happy ratings also emerged as significant predictors of enabling.

Inaction. Only level of emotion contributed to the prediction of inaction both when the situation involved a friend (F_{change} (4, 343) = 12.52, $p < .001$) and a non-friend (F_{change} (4, 342) = 18.04 $p < .001$), accounting for 13% and 17% of the variance, respectively (see Tables 33 and 34). When the situation involved a friend, only low angry ratings (level of emotion) emerged as a significant predictor of inaction. When the situation involved a non-friend, in addition to low angry ratings, low sad ratings and high happy ratings also emerged as significant predictors.

Table 31

Summary of Hierarchical Regression Analysis for Variables Predicting Enabling (Strategy)

When the Situation Involved a Friend

Variable		R^2	ΔR^2	β	t
Block 1		.04	.04		
Gender				-.19	-3.52***
Block 2		.19	.16		
Gender				-.14	-2.58*
Level of Emotion Experienced	Sad			.01	.20
	Angry			-.18	-3.36**
	Scared			-.01	-.19
	Happy			.31	6.16***
Block 3		.20	.01		
Gender				-.12	-2.20*
Level of Emotion Experienced	Sad			.07	.72
	Angry			-.12	-1.57
	Scared			-.01	-.12
	Happy			.30	5.70***
Intention to Dissemble	Sad			-.10	-1.05
	Angry			-.08	-.94
	Scared			.01	.05
	Happy			.08	1.40

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

Table 32

Summary of Hierarchical Regression Analysis for Variables Predicting Enabling (Strategy)

When the Situation Involved a Non-Friend

Variable		R^2	ΔR^2	β	t
Block 1		.02	.02		
Gender				-.15	-2.77**
Block 2		.46	.44		
Gender				-.03	-.71
Level of Emotion Experienced	Sad			-.05	-.82
	Angry			-.22	-4.22***
	Scared			-.01	-.21
	Happy			.52	12.04***
Block 3		.51	.04		
Gender				-.01	-.34
Level of Emotion Experienced	Sad			-.03	-.45
	Angry			-.22	-3.19**
	Scared			.09	1.34
	Happy			.34	5.76***
Intention to Dissemble	Sad			-.02	-.28
	Angry			.04	.53
	Scared			-.20	-2.72**
	Happy			.29	4.84***

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

Table 33

Summary of Hierarchical Regression Analysis for Variables Predicting Inaction (Strategy) When the Situation Involved a Friend

Variable		R^2	ΔR^2	β	t
Block 1		.001	.001		
Gender				-.033	-.61
Block 2		.13	.13		
Gender				-.004	-.07
Level of Emotion Experienced	Sad			-.02	-.26
	Angry			-.33	-6.09***
	Scared			.03	.49
	Happy			.07	1.36
Block 3		.16	.03		
Gender				.01	.17
Level of Emotion Experienced	Sad			.02	.20
	Angry			-.16	-1.94
	Scared			-.08	-.82
	Happy			.07	1.35
Intention to Dissemble	Sad			-.08	-.74
	Angry			-.23	-2.84**
	Scared			.14	1.40
	Happy			-.001	-.02

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

Table 34

Summary of Hierarchical Regression Analysis for Variables Predicting Inaction (Strategy) When the Situation Involved a Non-Friend

Variable		R^2	ΔR^2	β	t
Block 1		.000	.000		
Gender				.02	.27
Block 2		.17	.17		
Gender				.10	1.79
Level of Emotion Experienced	Sad			-.16	-2.16*
	Angry			-.30	-4.53***
	Scared			.12	1.74
	Happy			.13	2.49*
Block 3		.19	.01		
Gender				.10	1.88
Level of Emotion Experienced	Sad			-.14	-1.63
	Angry			-.33	-3.71***
	Scared			.18	2.14*
	Happy			.19	2.57*
Intention to Dissemble	Sad			-.05	-.53
	Angry			.03	.38
	Scared			-.07	-.77
	Happy			-.08	-1.03

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

Summary. As predicted, these results highlight important links between bystanders' strategies and emotion processes. Intention to dissemble contributed to the prediction of relatively few strategies (one third) when the situation involved a friend and two thirds of strategies when the situation involved a non-friend.[10] However, level of emotion emerged as an important predictor accounting for an average of approximately 12% of the variance in strategies when the situation involved a friend and nearly 31% of the variance, on average, when the situation involved a non-friend.

Among level of emotion variables, anger ratings emerged as a significant predictor for all strategies except adult involvement when the situation involved a friend. Across situations, high anger ratings, in combination with other emotions, predicted a number of intervention strategies including peer involvement, talking to the bully, gaining information, prosocial behavior toward the victim, and direct intervention as well as hostility/retaliation suggesting that anger may be needed to provoke bystanders into action. Conversely, low anger ratings predicted enabling and inaction across situations, reflecting that the absence of anger may give early adolescents emotional license to join in or do nothing.

Apart from level of anger, different predictors emerged among level of emotion and intention to dissemble variables when the situation involved a friend as compared to when the situation involved a non-friend. Of particular note is that across all strategies, level of happiness emerged as a significant predictor such that intervening on behalf of a victimized non-friend through adult involvement, peer involvement, talking to the bully, gaining information, being prosocial to the victim, and direct intervention was more likely if, in addition to feeling angry,

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[10] Gender emerged as a significant but somewhat modest predictor for the vast majority of strategies in both situations (friend versus non-friend) providing some evidence that boys and girls differ in their social problem-solving. Specifically, across situations, girls endorsed intervening by a variety of means (i.e., adult intervention, talking to the bully, gaining information, and being prosocial to the victim) higher than boys.

bystanders reported low happiness. *High* happiness ratings emerged as significant predictors of hostility/retaliation, enabling, and inaction strategies. By comparison, when the situation involved a friend, level of happiness was a significant predictor only for hostility/retaliation, prosocial behavior, and enabling (i.e., high, low, and high levels of happiness, respectively).

Taken together, the present findings demonstrate that emotions and one's relationship with the victim have a clear influence on bystanders' strategies in hypothetical bullying situations in ways that are inter-related and surprisingly complex. Equally compelling results were obtained for bystanders' goals.

Predicting goals from emotion processes. As above, hierarchical regression was also used to examine the relative contribution gender (block 1), level of emotion experienced (block 2), and intention to dissemble (block 3) to the prediction of early adolescent bystanders goals in situations hypothetical bullying situations involving friends versus non-friends. Results for each of the seven goals are presented in turn below.

Get bullying to stop. As shown in Tables 35 and 36, gender and level of emotion contributed significantly to the prediction of the goal of getting the bullying to stop both when the situation involved a friend (gender: F_{change} (1, 347) = 14.31, $p < .001$; level of emotion: F_{change} (4, 343) = 18.22, $p < .001$) and a non-friend (gender: F_{change} (1, 346) = 11.22, $p < .01$; level of emotion: F_{change} (4, 342) = 59.76, $p < .001$). When the situation involved a non-friend, level of emotion, on its own, accounted for more variance (40%) than when the situation involved a friend (17%). Gender emerged as a significant predictor of the goal of get bullying to stop across situations showing higher endorsement of this goal among girls. However, when the situation involved a friend, high sad and high angry level of emotion ratings were also significant

predictors, whereas high scared, low happy, and high angry level of emotion ratings emerged as significant predictors when the situation involved a non-friend.

Help the victim. Gender and level of emotion also contributed significantly to the prediction of the goal of help the victim (see Tables 37 and 38) when the situation involved a friend (gender: F_{change} (1, 347) = 39.75, p < .001; level of emotion: F_{change} (4, 343) = 28.68, p < .001) and a non-friend (gender: F_{change} (1, 346) = 21.51, p < .001; level of emotion: F_{change} (4, 342) = 74.34, p < .001) with level of emotion accounting 44 % of the variance when the situation involved a non-friend and 23% of the variance when the a friend was involved. In both situations gender (showing higher endorsement of helping the victim among girls) and high angry and low happy level of emotion ratings emerged as significant predictors of wanting to help the victim.

Avoid involvement. Results of regression analyses indicated that level of emotion (F_{change} (4, 343) = 7.53, p < .001) and intention to dissemble (F_{change} (4, 339) = 6.58, p < .001) contributed significantly to the prediction of avoid involvement goals when the situation involved a friend (Table 39). In addition to low level of anger ratings, among intention to dissemble ratings, low sad, low angry, and high scared ratings emerged as significant predictors. Only level of emotion contributed significantly to the prediction of avoid involvement (Table 40) when the situation involved a non-friend (F_{change} (4, 342) = 8.85, p < .001) with low angry, high scared, and high happy ratings emerging as significant predictors.

Table 35

Summary of Hierarchical Regression Analysis for Variables Predicting Get Bullying to Stop (Goal) When the Situation Involved a Friend

Variable		R^2	ΔR^2	β	T
Block 1		.04	.04		
Gender				.20	3.78***
Block 2		.21	.17		
Gender				.08	1.46
Level of Emotion Experienced	Sad			.15	2.11*
	Angry			.30	5.82***
	Scared			.05	.71
	Happy			-.08	-1.68
Block 3		.23	.02		
Gender				.05	1.03
Level of Emotion Experienced	Sad			.17	1.79
	Angry			.23	2.99**
	Scared			-.04	-.38
	Happy			-.07	-1.42
Intention to Dissemble	Sad			-.02	-.16
	Angry			.11	1.42
	Scared			.13	1.38
	Happy			-.07	-1.42

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

Table 36

Summary of Hierarchical Regression Analysis for Variables Predicting Get Bullying to Stop

(Goal) When the Situation Involved a Non-Friend

Variable		R^2	ΔR^2	β	t
Block 1		.03	.03		
Gender				.18	3.35**
Block 2		.43	.40		
Gender				.02	.32
Level of Emotion Experienced	Sad			.04	.72
	Angry			.40	7.26***
	Scared			.12	2.06*
	Happy			-.27	-5.91***
Block 3		.44	.01		
Gender				.01	.12
Level of Emotion Experienced	Sad			.01	.08
	Angry			.36	4.93***
	Scared			.11	1.54
	Happy			-.28	-4.57***
Intention to Dissemble	Sad			.11	1.39
	Angry			.07	.93
	Scared			-.03	-.34
	Happy			.02	.38

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

Table 37

Summary of Hierarchical Regression Analysis for Variables Predicting Help Victim (Goal)

When the Situation Involved a Friend

Variable		R^2	ΔR^2	β	t
Block 1		.10	.10		
Gender				.32	6.31***
Block 2		.33	.23		
Gender				.25	4.85***
Level of Emotion Experienced	Sad			.06	.98
	Angry			.39	8.05***
	Scared			-.002	-.03
	Happy			-.16	-3.56***
Block 3		.34	.01		
Gender				.23	4.56***
Level of Emotion Experienced	Sad			-.01	-.10
	Angry			.30	4.23***
	Scared			.03	.31
	Happy			-.18	-3.64***
Intention to Dissemble	Sad			.12	1.30
	Angry			.11	1.52
	Scared			-.04	-.48
	Happy			-.004	-.08

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

Table 38

Summary of Hierarchical Regression Analysis for Variables Predicting Help Victim (Goal)

When the Situation Involved a Non-Friend

Variable		R^2	ΔR^2	β	t
Block 1		.06	.06		
Gender				.24	4.64***
Block 2		.50	.44		
Gender				.07	1.66
Level of Emotion Experienced	Sad			.11	1.93
	Angry			.41	8.05***
	Scared			.07	1.31
	Happy			-.26	-6.25***
Block 3		.51	.02		
Gender				.06	1.43
Level of Emotion Experienced	Sad			.12	1.74
	Angry			.34	4.97***
	Scared			.02	.34
	Happy			-.20	-3.47**
Intention to Dissemble	Sad			.01	.10
	Angry			.10	1.45
	Scared			.08	1.17
	Happy			-.10	-1.70

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

Table 39

Summary of Hierarchical Regression Analysis for Variables Predicting Avoid Involvement (Goal) When the Situation Involved a Friend

Variable		R^2	ΔR^2	β	t
Block 1		.003	.003		
Gender				.05	1.00
Block 2		.08	.08		
Gender				.02	.36
Level of Emotion Experienced	Sad			.03	.37
	Angry			-.25	-4.43***
	Scared			.12	1.60
	Happy			.09	1.71
Block 3		.15	.07		
Gender				.04	.72
Level of Emotion Experienced	Sad			.26	2.62**
	Angry			-.10	-1.21
	Scared			-.09	-.86
	Happy			.11	1.95
Intention to Dissemble	Sad			-.38	-3.71***
	Angry			-.18	-2.17*
	Scared			.31	3.11**
	Happy			.03	.53

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

Table 40

Summary of Hierarchical Regression Analysis for Variables Predicting Avoid Involvement (Goal) When the Situation Involved a Non-Friend

Variable		R^2	ΔR^2	β	t
Block 1		.000	.000		
Gender				-.02	-.27
Block 2		.09	.09		
Gender				.01	.09
Level of Emotion Experienced	Sad			-.10	-1.31
	Angry			-.17	-2.48*
	Scared			.18	2.47*
	Happy			.19	3.33**
Block 3		.10	.01		
Gender				.01	.12
Level of Emotion Experienced	Sad			-.12	-1.28
	Angry			-.09	-.97
	Scared			.16	1.85
	Happy			.20	2.53***
Intention to Dissemble	Sad			.01	.05
	Angry			-.12	-1.37
	Scared			.03	.34
	Happy			-.02	-.20

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

Self-interest. Only the second block measuring level of emotion contributed significantly to the prediction of self-interest (Tables 41 and 42) and only when the situation involved a friend (F_{change} (4, 343) = 4.96, $p < .01$). Otherwise, neither gender nor intention to dissemble contributed significantly to the prediction of self-interest goals in either situation. When the situation involved a friend high angry, high scared, and high happy ratings were significant predictors.

Prosocial. Gender (friend: F_{change} (1, 347) = 30.33, $p < .001$; non-friend: F_{change} (1, 346) = 17.59, $p < .001$) and level of emotion (friend: F_{change} (4, 343) = 16.23, $p < .001$; non-friend: F_{change} (4, 342) = 49.19, $p < .001$) contributed significantly to the prediction of wanting to be prosocial in both situations (see Table 43 and Table 44). In addition to gender (girls > boys), among level of emotion variables, high sad, high angry, and low happy ratings were predictors of prosocial goals across situations. When the situation involved a friend, high scared ratings also emerged as a significant predictor.

Negative outcomes. When the situation involved a friend (Table 45), all three blocks contributed significantly to the prediction of wanting negative outcomes for the bully (gender: F_{change} (1, 347) = 6.64, $p < .01$; level of emotion: F_{change} (4, 343) = 10.57, $p < .001$; intention to dissemble: F_{change} (4, 339) = 3.66, $p < .01$). When combined, all three blocks accounted for 16% of the shared variance in wanting negative outcomes for the bully. Thus, in addition to gender (boys > girls), among level of emotion and intention to dissemble variables, only high angry ratings emerged as significant predictors of wanting negative outcomes for the bully. However, when the situation involved a non-friend (Table 46), only level of emotion contributed significantly to the prediction of wanting negative outcomes for the bully (F_{change} (4, 342) = 12.71, $p < .001$), with high angry ratings emerging as the only significant predictor.

Table 41

Summary of Hierarchical Regression Analysis for Variables Predicting Self-Interest (Goal) When the Situation Involved a Friend

Variable		R^2	ΔR^2	β	t
Block 1		.002	.002		
Gender				-.05	-.89
Block 2		.06	.05		
Gender				-.13	-2.09*
Level of Emotion Experienced	Sad			.00	-.004
	Angry			.12	2.12*
	Scared			.18	2.52*
	Happy			.14	2.56*
Block 3		.07	.01		
Gender				-.12	-1.89
Level of Emotion Experienced	Sad			.02	.16
	Angry			.20	2.41*
	Scared			.10	.97
	Happy			.12	2.15*
Intention to Dissemble	Sad			-.05	-.42
	Angry			-.11	-1.30
	Scared			.11	1.04
	Happy			.05	.79

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

Table 42

Summary of Hierarchical Regression Analysis for Variables Predicting Self-Interest (Goal)

When the Situation Involved a Non-Friend

Variable		R^2	ΔR^2	β	t
Block 1		.001	.001		
Gender				.03	.51
Block 2		.03	.03		
Gender				.01	.09
Level of Emotion Experienced	Sad			.07	.83
	Angry			.06	.83
	Scared			.01	.16
	Happy			.18	3.10**
Block 3		.03	.002		
Gender				.000	.001
Level of Emotion Experienced	Sad			.03	.29
	Angry			.07	.72
	Scared			.02	.20
	Happy			.20	2.44*
Intention to Dissemble	Sad			.09	.85
	Angry			-.01	-.14
	Scared			-.04	-.35
	Happy			-.02	-.29

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

Table 43

Summary of Hierarchical Regression Analysis for Variables Predicting Prosocial (Goal) When the Situation Involved a Friend

Variable		R^2	ΔR^2	β	t
Block 1		.08	.08		
Gender				.28	5.51***
Block 2		.23	.15		
Gender				.10	1.87
Level of Emotion Experienced	Sad			.14	2.00*
	Angry			.12	2.26*
	Scared			.23	3.53***
	Happy			-.11	-2.25*
Block 3		.25	.02		
Gender				.12	2.12*
Level of Emotion Experienced	Sad			.13	1.37
	Angry			.23	2.96**
	Scared			.13	1.35
	Happy			-.14	-2.74**
Intention to Dissemble	Sad			-.02	-.16
	Angry			-.15	-1.93
	Scared			.13	1.42
	Happy			.08	1.55

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

Table 44

Summary of Hierarchical Regression Analysis for Variables Predicting Prosocial (Goal) When the Situation Involved a Non-Friend

Variable		R^2	ΔR^2	β	t
Block 1		.05	.05		
Gender				.22	4.19***
Block 2		.40	.35		
Gender				.04	.93
Level of Emotion Experienced	Sad			.25	3.99***
	Angry			.23	4.13***
	Scared			.04	.68
	Happy			-.26	-5.70***
Block 3		.41	.01		
Gender				.03	.64
Level of Emotion Experienced	Sad			.21	2.82**
	Angry			.21	2.80**
	Scared			.01	.07
	Happy			-.19	-2.95**
Intention to Dissemble	Sad			.11	1.33
	Angry			.02	.31
	Scared			.04	.46
	Happy			-.11	-1.76

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

Table 45

Summary of Hierarchical Regression Analysis for Variables Predicting Negative Outcomes (Goal) When the Situation Involved a Friend

Variable		R^2	ΔR^2	β	t
Block 1		.02	.02		
Gender				-.14	-2.58*
Block 2		.13	.11		
Gender				-.09	-1.54
Level of Emotion Experienced	Sad			-.05	-.70
	Angry			.34	6.27***
	Scared			-.11	-1.53
	Happy			.10	1.88
Block 3		.16	.04		
Gender				-.11	-1.95
Level of Emotion Experienced	Sad			-.05	-.47
	Angry			.16	1.94
	Scared			-.09	-.89
	Happy			.10	1.78
Intention to Dissemble	Sad			.01	.13
	Angry			.26	3.16**
	Scared			.01	.05
	Happy			-.02	-.43

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

Table 46

Summary of Hierarchical Regression Analysis for Variables Predicting Negative Outcomes (Goal) When the Situation Involved a Non-Friend

Variable		R^2	ΔR^2	β	t
Block 1		.003	.003		
Gender				-.05	-.97
Block 2		.13	.13		
Gender				-.09	-1.70
Level of Emotion Experienced	Sad			-.05	-.67
	Angry			.43	6.33***
	Scared			-.04	-.54
	Happy			.06	1.12
Block 3		.16	.03		
Gender				-.11	-2.00
Level of Emotion Experienced	Sad			-.06	-.71
	Angry			.34	3.81***
	Scared			-.11	-1.29
	Happy			.12	1.63
Intention to Dissemble	Sad			.05	.54
	Angry			.11	1.32
	Scared			.11	1.12
	Happy			-.10	-1.33

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

Defer to adults. In friend and non-friend situations (Tables 47 and 48), gender (friend:

F_{change} (1, 347) = 9.20, p < .01; non-friend: F_{change} (1, 346) = 8.21, p < .01) and level of emotion

(friend: F_{change} (4, 343) = 10.35, p < .001; non-friend: F_{change} (4, 342) = 11.99, p < .001)

contributed significantly to the prediction of wanting to defer to adults. When combined, gender

and level of emotion explained 13% of the shared variance when the situation involved a friend

and 14% of the shared variance when the situation involved a non-friend. In both situations,

gender (girls > boys) and high scared ratings emerged as significant predictors. When the

situation involved a non-friend, low happy ratings also emerged as a significant predictor of

wanting to defer to adults.

Table 47

Summary of Hierarchical Regression Analysis for Variables Predicting Defer to Adults (Goal) When the Situation Involved a Friend

Variable		R^2	ΔR^2	β	t
Block 1		.03	.03		
Gender				.16	3.03**
Block 2		.13	.11		
Gender				-.001	-.01
Level of Emotion Experienced	Sad			.03	.41
	Angry			-.01	-.23
	Scared			.35	4.94***
	Happy			.01	.20
Block 3		.15	.02		
Gender				-.01	-.08
Level of Emotion Experienced	Sad			.18	1.86
	Angry			.02	.27
	Scared			.22	2.22*
	Happy			.04	.71
Intention to Dissemble	Sad			-.23	-2.24*
	Angry			-.02	-.29
	Scared			.21	2.07*
	Happy			-.06	-1.08

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

Table 48

Summary of Hierarchical Regression Analysis for Variables Predicting Defer to Adults (Goal)

When the Situation Involved a Non-Friend

Variable		R^2	ΔR^2	β	t
Block 1		.02	.02		
Gender				.15	2.87**
Block 2		.14	.12		
Gender				.02	.35
Level of Emotion Experienced	Sad			.13	1.69
	Angry			.06	.92
	Scared			.16	2.35*
	Happy			-.13	-2.35*
Block 3		.16	.01		
Gender				.01	.15
Level of Emotion Experienced	Sad			.09	1.06
	Angry			.02	.27
	Scared			.15	1.80
	Happy			-.04	-.48
Intention to Dissemble	Sad			.08	.82
	Angry			.04	.47
	Scared			.01	.09
	Happy			-.14	-1.78

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

Summary. As predicted, bystanders' goals in response to hypothetical bullying situations were predicted by emotion processes. Across situations, level of emotion (and gender[11]) contributed significantly to the prediction of the majority of bystanders' goals. Specifically, the degree to which early adolescents reported anger was a significant predictor of all goals except wanting to defer to adults (across situations) and self-interest goals when the situation involved a friend.

With regard to level of emotion, predictors for the goal of wanting to help the victim were the same across situations. That is, endorsement of this goal was more likely in both situations (friend and non-friend) if the bystander felt angry but not happy. Otherwise, level of emotion predictors varied across situations. Wanting the bully to stop, perhaps the most important goal from a peer intervention perspective was more likely when the victim was a friend if the bystander felt angry and *sad*. By comparison, when the situation involved a non-friend, bystanders were more likely to want the bully to stop if they felt angry and *scared* but not happy.

As with strategies, intention to dissemble did not emerge as an important predictor of bystanders' goals to the same extent as level of emotion. However, intention to dissemble contributed to the prediction of some goals including wanting to avoid involvement, wanting negative outcomes for the bully across situations and *wanting* to defer to an adult when the situation involved a friend.

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[11] Gender predicted goals except wanting to help the victim and protecting one's interests (self-interest) across situations and wanting negative outcomes for the bully when the situation involved a non-friend.

CHAPTER V

Discussion

Research over the past decade has demonstrated quite clearly that although peers tend to be present when bullying occurs, bystanders tend to help victims rather infrequently, despite efforts to encourage peer intervention (e.g., Atlas & Pepler, 1998; Craig & Pepler, 1997; Hawkins et al., 2001). Explaining why bystanders are reluctant to intervene has proven difficult for researchers. Some have suggested that perhaps the very presence of others "diffuses" bystanders' sense of individual responsibility to act when bullying occurs (O'Connell et al., 1999; Olweus, 1978; 1991). Factors such as bystanders' levels of empathy, self-efficacy (Gini et al., 2007), moral disengagement (Gini, 2006), and attitudes related to bullying (Salmivalli & Voeten, 2004) have also been examined and appear to have an influence on bystander behavior. However, it has also been suggested that perhaps bystanders are not aware of appropriate or effective strategies (Craig et al., 2000; Hazler, 1996) with some evidence that social information processing might play an important role (e.g., Camodeca & Goossens, 2006; Rocke Henderson, 2002). Unfortunately, to date, little of what is known about social problem-solving actually pertains directly to bystanders and, instead, must be extrapolated from research looking at children involved in bullying as either bullies or victims (e.g., Mahady Wilton et al., 2000).

The present study has contributed new and important insights about early adolescent bystanders' social problem-solving and emotion processes, highlighting the importance of gender as well as the bystanders' relationship with the victim. From a social information processing perspective, findings revealed that, as in other hypothetical, conflict-based social situations, there appear to be distinct associations between bystanders' strategies and goals.

Moreover, emotion processes seem to play a critical role in bystanders' social problem-solving. Most importantly, findings suggested that *who* is involved matters. In many instances, in the context of dealing with bullying, boys' and girls' social problem-solving in hypothetical situations differed. In addition, whether or not the victim was a friend mattered greatly, influencing both how bystanders responded and how they reported feeling in hypothetical bullying situations. Taken together, these findings suggest that a variety of inter-related factors likely contribute to how bystanders respond to bullying.

Links between Strategies and Goals

The first research question asked whether there were links between early adolescent bystanders' strategies and goals in hypothetical bullying situations. As expected, bystanders' goals were indeed meaningfully related to their strategies. However, rather than helping to explain motivations behind prosocial or proactive responses to bullying (e.g., confronting the bully verbally, being prosocial to the victim, intervening), results showed a more complex pattern of associations revealing instead motivations underlying more problematic responses including being willing to join in, retaliate against a bully, or do nothing. For instance, students who endorsed both enabling and retaliation against a bully, strategies likely to perpetuate bullying, were the least concerned with goals aimed at assisting the victim and were also less likely to endorse strategies with the potential to disrupt the victimization. Although such ambivalence on the part of bystanders is troubling, these findings highlight a type of "anti-social" goal orientation that appears to set the stage for an inappropriate response to bullying. It is possible that in order to reduce bullying, we may need to selectively target children who endorse this type of strategy/goal association.

Bystanders' overall reluctance to intervene might also be informed by understanding their desire to actively avoid bullying situations. Here, results of the present study indicated that when students' main motivation was to avoid involvement and to defer to an adult, they were decidedly unmotivated to end the victimization or get back at the bully. Perhaps not surprisingly, adult involvement and inaction were preferred strategies. Although this approach to social problem-solving may reflect a somewhat cavalier attitude toward bullying (i.e., the attitude that it is not their responsibility to intervene, see Rocke Henderson et al., 2002), by involving an adult there is at least the potential for the victimization to be addressed. By comparison, students concerned about avoiding involvement and protecting their own interests (self-interest) were more likely to endorse the use of inaction as well as *enabling* strategies, suggesting that when students want to stay clear of bullying problems and perhaps ensure that they do not become the next victim, the best course of action, from their perspective, may be to ignore the situation or to join in. Endorsement of such contradictory strategies seems consistent with the notion that bystanders may lack appropriate or effective strategies (Craig et al., 2000; Hazler, 1996) for staying out of bullying problems.

Results also highlighted the responses of students oriented to wanting negative outcomes for the bully, some of whom may intend to accomplish this goal through the use of hostile or retaliatory behavior *and* by recruiting the assistance of peers. Here, findings underscore the importance of group processes in bullying in that the backing of the peer group may be needed in order to retaliate against a bully. Unfortunately this type of bystander response has the potential to promote further violence and aggression in schools and should be addressed directly if intervention efforts are going to successfully reduce the extent of school bullying. Findings also

revealed that students may retaliate against the bully, not for the purpose of getting the bullying to stop but rather because they want negative outcomes for the bully.

As we have seen, results examining the links between strategies and goals highlighted some of the intricacies of early adolescent bystanders' social problem-solving, showing, for instance, that students may be motivated to use the same strategy or combination of strategies for different reasons. More importantly, results have shed some light on students' motivation to use problematic strategies such as inaction, enabling, hostility, and retaliation, responses that tend to encourage further bullying. However, given the characteristically self-focused and anti-social goal orientations associated with such behavior, I suspect that it may be difficult to change bystanders' endorsement and use of these response strategies.

Variations in Social Problem-Solving as a Function of Friendship Status with the Victim and Gender

The second research question focused on whether early adolescent bystanders' social problem-solving in hypothetical bullying situations varied as a function of gender and friendship status with the victim. Results generally indicated that not only were girls and boys likely to respond differently but more importantly, whether or not the child being victimized was a friend versus a non-friend appeared to influence bystanders' responses.

The influence of friendship status. As expected, students reported that they would be more likely to intervene on behalf of a victimized friend than a non-friend using a variety of strategies. Although unexpected, bystanders also favored the use of hostility and retaliation in response to bullying involving a friend, suggesting that early adolescents appear to be willing to act on behalf of friends by whatever means necessary. However, when the situation did not involve a friend, bystanders were more likely to endorse joining in or doing nothing. Similarly,

with respect to goals, students were more likely to want to be helpful to the victim and also want negative outcomes for the bully when the situation involved a friend but were more motivated to avoid getting involved when a non-friend was bullied. Thus, with moderate to strong effect sizes, friendship status had an impressive influence on bystanders' social problem-solving in hypothetical bullying situations showing that friendship status with the victim matters and may be an important factor in determining whether or not bystanders intervene. The challenge for those interested in promoting more bystander intervention, may be motivating bystanders to act on behalf of children who are not their friends.

   The influence of gender. Consistent with past research showing that girls are be more likely to "defend" victims and boys are be more likely to "assist" in or "reinforce" the bullying (Goosens et al., 2006; Salmivalli & Voeten, 2004), gender differences in early adolescents' endorsement of strategies also emerged in the present study. Specifically, girls reported that they would be more likely than boys to intervene by various means; boys indicated that they would be more willing to retaliate against a bully or join in with the bullying. Not surprisingly, more so than boys, girls also demonstrated a distinctively "prosocial" goal orientation. However, boys and girls did *not* differ when it came to wanting to avoid involvement or wanting negative outcomes for the bully.

   Thus, while we may be able to expect more intervention on the part of girls who tended to be more oriented to "helping" victims, consistent with research suggesting children's friendships play an important protective function when it comes to victimization (see Pellegrini et al., 2010), we may also expect more intervention on the part of *both* boys and girls when the situation involves a victimized friend.

Variations in Emotion Processes as a Function of Gender and Friendship Status with the Victim

The third research question considered the potential influence of gender and friendship status with the victim on early adolescent bystanders' emotion processes in hypothetical bullying situations. Here friendship status mattered.

The influence of friendship status. In the current study, friendship status with the victim emerged as an important factor in determining bystanders' emotion processes related to anger. For instance, both boys and girls were more likely to report that they would feel (initial emotion) and look angry (initial emotional display) initially when the situation involved a friend. Moderate effect sizes suggested that friendship status accounted for over 50% of the variance in initial emotion and initial display of anger. These findings, however, were based on students' responses to a forced-choice format. A similar pattern of results emerged when the capacity to experience multiple emotions simultaneously was considered. Situations involving a victimized friend elicited more anger (level of emotion) from early adolescent bystanders, accounting for 64% of the variance. Both boys and girls were more also likely to hide anger (intention to dissemble) if the situation involved a non-friend, with friendship status accounting for 55% of the variance.

To what degree then do early adolescent bystanders experience emotions with greater intensity than they are willing to show? Results suggested that early adolescents generally experienced more anger than they were prepared to show when the situation involved a friend. However, this finding is reported tentatively as some statistical assumptions were violated. Although we cannot be confident that this finding will generalize, the fact that the discrepancy between level of emotion experienced and intention to dissemble was greatest when the situation

involved a friend is noteworthy. Specifically, early adolescents reported experiencing more anger than they were willing to show when the victim was a friend. Thus, bystanders appear to manage their display of anger when the situation involves a friend. However, the effect this may have on the behavior of others, including the bully, is unknown. One possibility is that by not showing the extent of their anger, bystanders may be unintentionally signaling approval of the bully's behavior or at least not signaling the extent of their disapproval (Mahady Wilson, 2001). Another possibility is that an emotionally and socially competent response to bullying situations involving friends requires feeling but showing the "right" amount of anger (Saarni, 1999).

The influence of gender. Mixed results have been reported in the literature with respect to gender differences in the experience and expression of anger (see Underwood, 2003). In addition, when girls themselves are the target of an anger-provoking situation, past research has shown that girls tend to report more anger in hypothetical situations than when observed directly (Kerr & Schneider, 2008) suggesting that girls may overestimate their anger. In the present study, boys reported that they would feel angry at least initially (initial emotion) more often than girls in bullying situations involving a friend. However, when given an opportunity to rate their emotions, girls generally reported that they would experience more anger (level of emotion) and would be more willing to show their anger (intention to dissemble) than boys. Given that effect sizes here were small (< .04), it is not clear whether these findings reflect meaningful differences. A statistically significant interaction was also obtained, for students' ratings of how sad they would feel. Although girls reported more sadness than boys, both boys and girls reported more intense feelings of sadness when the situation involved a friend. However, the effect size again was small.

On the basis of these findings it seems that friendship status with the victim, as compared with gender, had a significant influence on bystanders' emotion processes in hypothetical bullying situations. Specifically, the evidence suggests that anger tends to be evoked and expressed more readily in response to bullying involving friends. The extent that emotion processes differentially predicted bystanders' social problem-solving in situations involving friends versus non-friends was addressed next.

Links between Social Problem-Solving and Emotion Processes

The fourth and final research question asked whether there were links between early adolescent bystanders' social problem-solving and emotion processes in hypothetical bullying situations. Specifically, of interest was whether emotion processes (i.e., level of emotion and intention to dissemble) predicted bystanders' strategies and goals.

Predicting strategies. To varying degrees, gender, level of dissemblance, and intention to dissemble each contributed to the prediction of bystanders' strategies in hypothetical bullying situations. Gender, for instance, emerged as a significant but somewhat modest predictor for the vast majority of strategies in both situations (friend versus non-friend) providing further evidence that with few exceptions, boys' and girls' social problem-solving in bullying situations differs. By comparison, intention to dissemble contributed to the prediction of relatively few strategies (one third) when the situation involved a friend and two thirds of strategies when the situation involved a non-friend, underscoring the importance of bystanders' willingness to show their feelings in situations involving victims who are not friends. However, a considerable portion of the variance was accounted for by considering the degree to which bystanders experienced particular emotions with more of the variance explained by level of emotion when the situation involved a non-friend (friend: ΔR^2 range = .5 to .16; non-friend: ΔR^2 range = .16 to

.44). Thus, level of emotion may be a stronger predictor of bystanders' strategies in response to school bullying, particularly when the situation involves a non-friend.

Among level of emotion variables and often with standardized betas greater than .2, anger emerged as an important predictor of bystanders' strategies in hypothetical situations regardless of whether the situation involved a friend or a non-friend. Interestingly, anger, in combination with other emotions, predicted a variety of intervention strategies including hostility/retaliation suggesting that some degree of anger may be needed in order for bystanders' to act on behalf of victims. The only strategy for which anger was not predictive was adult involvement when a friend was bullied which was predicted instead by fear. Across situations, *lower* anger ratings predicted problematic strategies such as enabling and inaction suggesting that perhaps the absence of anger leads to a willingness to join in or stand by and do nothing.

In several instances, the extent to which bystanders reported feeling happy (level of emotion) also emerged as an important predictor of bystanders' strategies. When the situation involved a non-friend, low happiness ratings predicted intervention strategies, whereas high happiness ratings predicted, retaliation, enabling, and inaction. The implication may be that in order to intervene on behalf of peers who are not friends, in addition to feeling angry, bystanders may also need to take the situation seriously and *not* find it amusing. Conversely, destructive or unhelpful behavioral responses may be more likely if the situation elicits positive affect (i.e., they find the situation funny). Unfortunately, research on student attitudes toward bullying suggests that the vast majority view bullying as normal and may not find the bullying problematic (Rocke Henderson et al., 2002).

Among level of emotion variables, sad and scared ratings were less frequently predictive of bystanders' strategies in hypothetical bullying situations. When the situation involved a non-

friend, high sad ratings predicted whether a bystander was likely to get information about the situation from others (gain information) or be nice to the victim. By comparison, low sad ratings predicted whether a bystander was likely to retaliate or do nothing. In combination with others emotions, sadness seems to promote either an indirect or an aggressive approach. Interestingly, low fear ratings predicted both direct intervention and hostility/retaliation strategies suggesting that an absence of fear (in combination with other emotions), may be needed in order for bystanders to take a more direct or confrontational approach.

Predicting goals. To varying degrees, gender, level of dissemblance, and intention to dissemble contributed to the prediction of bystanders' goals in hypothetical bullying situations. Gender, for example was a modest predictor of goals except wanting to avoid involvement and self-interest across situations as well as wanting negative outcomes for the bully when the situation involved a non-friend. However, intention to dissemble emerged as a significant predictor only for the goal of avoiding involvement and wanting negative outcomes for the bully when the situation involved a friend.

In predicting bystander goals, once again, level of emotion emerged as a more important predictor than either gender or intention to dissemble with results highlighting the importance of anger. For instance, across situations, feeling angry predicted anti-social goals such as wanting negative outcomes for the bully as well as several prosocial goals. Low anger ratings predicted whether bystanders were motivated to avoid getting involved. However, anger did not predict whether bystanders' might be motivated to defer to an adult. Instead, feeling afraid was predictive of deferring to adults.

Results also highlighted the importance of positive affect, particularly when the situation involved a non-friend, suggesting that bystanders may be more likely to pursue prosocial goals

such as wanting to stop the bullying, to help the victim, and to be prosocial, if they were angry and sad but *not* happy.

Finally, self-interest goals were not well-explained by gender, level of emotion, or intention to dissemble. Level of emotion was found to be a very modest predictor of self-interest goals when the situation involved a friend, suggesting that bystanders may be more motivated by self-interest if they feel both positive and negative affect (i.e., angry and scared). Perhaps self-interest goals are more likely to be pursued when bystanders feel such emotional ambivalence.

Implications

It is not surprising, given these findings, that efforts to reduce bullying problems in schools have been met with minimal success. It seems that we have inadvertently oversimplified what appears to be a very complex social problem (Rocke Henderson, 2002). Bystanders' responses, at least in hypothetical situations, seem to be influenced by a variety of factors not the least of which include their own goals, the status of their relationship with the child being victimized, and their emotions. In light of these findings, the most critical question we can ask is: How can we encourage children and adolescents to intervene more often on behalf victims?

First, in general, improving students' social problem-solving skills shows promise as an approach to increasing bystander intervention. For instance, for students who are focused on staying out of bullying situations, social problem-solving interventions may be particularly helpful, allowing them to consider a range of response options that protect self-interests but nevertheless help the victim. However, in order to have a reasonable chance for success, a social problem-solving approach would need to (a) encourage bystanders to generate multiple strategies for accomplishing their goals in a variety of situations, (b) encourage bystanders to consider multiple goals, and (c) give students opportunities to rehearse their responses in a

variety of hypothetical situations. Within the broader problem-solving literature (e.g., Shure, 2001) these elements have proven necessary to improving problem-solving skills among aggressive and oppositional children and are likely to be important in order to have a similar affect among bystanders.

Hymel, Rocke Henderson, and Bonanno (2005) have argued that one of the reasons that students may be reluctant to intervene is that they are morally disengaged. The key to promoting moral engagement, however, may begin with greater *emotional* understanding. The present findings suggest that a social problem-solving approach to intervention would be further enhanced by promoting greater emotional awareness and understanding among bystanders. Getting students to understand how their own emotional responses influence their own behavior and, in turn, the behavior of others, seems critically important. For example, allowing children to discover that when they hide their feelings, feelings such as anger that may hint at their disdain for a bully's behavior, they may be unintentionally encouraging the bullying or at least not actively discouraging bullying. This may be particularly important when someone who is not a friend is being bullied. In this regard, showing a little anger might go a long way.

The results of this study strongly suggest that friendship status with the victim influences how bystanders respond to incidents of bullying. Unfortunately, but perhaps not surprisingly, bystanders are less likely to help a victimized peer who is not a friend, suggesting that intervention efforts may also need to actively encourage peers to intervene on behalf of non-friends. A continued focus on helping victims to develop friendships which offer protection from further victimization also seems warranted.

The most intriguing finding in the present study suggests, somewhat paradoxically, that anger may be important for motivating bystanders to act on behalf of victims, particularly those

who are not friends. Here, the suggestion is that rather than inciting hostility or aggression, anger may instead serve the adaptive function of providing the emotional "jump start" to bystander intervention. Thus, when experienced at an as yet unknown threshold, anger has the potential to lead to a positive outcome for victims (see Saarni, 1999). Within this context at least, anger may be both adaptive and helpful. As Dodge (1991) suggests, perhaps it is emotion, anger in particular, that "drives, organizes, amplifies, and attenuates cognitive activity" which in turn, may be *necessary* in order for bystanders to act on behalf of victims.

Limitations and Future Directions

The present study has expanded our understanding of bystanders' responses to bullying and social information processing by examining social problem-solving *and* emotion processing among bystanders in the context of hypothetical situations as bystanders as well as by demonstrating that peer responses to bullying are influenced by one's relationship with the victim. The limitations of this study, however, suggest several areas for further inquiry.

First, the present study focused exclusively on self-reported responses to *hypothetical* situations which has been criticized as not corresponding with children's *actual* behavioral or emotional responses (Endreson & Olweus, 2001), highlighting the need for observational and experimental research. Second, as the present study only focused on friendship status with the victim, it may be informative to consider the influence of friendship status with the bully which we suspect also influences bystander behavior. Third, given studies showing that bystanders' responses change as children age (e.g., Trach, Hymel, Waterhouse, & Neale, in press), a developmental approach to examining social problem-solving and emotion processes among bystanders is needed. Fourth, our understanding of bystander intervention (or lack thereof) might also be further enhanced by examining the predictive power of such variables as social

self-efficacy and social status. Fifth, in light of research showing cross-cultural differences in children's emotional responses, it may have been worthwhile to consider the influence of culture on bystanders' emotion processes. For instance, some research has shown that certain cultural groups show greater restraint when it comes to showing emotion (e.g., Garrett-Peters & Fox, 2007). However, the extent that cross-cultural factors influenced both social problem-solving and emotion processes warrants investigation. Finally, in the present study, girls were generally more likely than boys to report intervening on behalf of victimized peers both when the situation involved a same-sex friend or non-friend. Whether or not girls would endorse intervening to the same degree if the bully and/or the victim were boys remains to be tested.

Finally, I acknowledge that problems associated with the distributions of several variables that were examined in the present study may have produced biased F-tests. As a result, findings pertaining to variables for which assumptions were violated may not generalize. Thus, replication is needed in order to verify the generalizability of the results obtained in the present study.

Conclusions

This study addressed several gaps in our understanding of how early adolescents deal with bullying and the factors that lead to effective and ineffective bystander responses. Results highlighted what bystanders try to do when bullying occurs, what it is they aim to accomplish, the emotion processes that impact how they respond as well as how these variables are linked and how the social context influences bystanders' responses in bullying situations. While we continue to assert that our capacity to dramatically reduce this type of aggression rests with the peer group, current findings suggest that we need to take a more targeted approach to

intervention. Getting children and adolescents to intervene on behalf of victims is not likely simply a matter of increasing students' repertoire of strategies. A broader range of social problem-solving skills and greater emotional competence seem critically important. Until school administrators, teachers, parents, and researchers recognize the need for mentoring, modeling, and instruction of this type of social emotional learning, few students will likely develop the sense of self-efficacy and skills needed increase bystander intervention.

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APPENDICES

Appendix A

BREB Certificate of Approval

The University of British Columbia
Office of Research Services
Behavioural Research Ethics Board
Suite 102, 6190 Agronomy Road, Vancouver, B.C. V6T 1Z3

CERTIFICATE OF APPROVAL - FULL BOARD

PRINCIPAL INVESTIGATOR:	INSTITUTION / DEPARTMENT:	UBC BREB NUMBER:
Shelley Hymel	UBC/Education	H07-00626

INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT:	
Institution	Site
N/A	N/A

Other locations where the research will be conducted:
Public schools within the Lower Mainland that may include school districts in Coquitlam, West Vancouver, North Vancouver, and Vancouver.

CO-INVESTIGATOR(S):
Natalie Rocke Henderson

SPONSORING AGENCIES:
N/A

PROJECT TITLE:
Emotion Processes and Social Problem-Solving among Early Adolescent Bystanders in Bullying Situations

Title used in the schools:
Students' Feelings and Responses to Social Conflict

REB MEETING DATE:	CERTIFICATE EXPIRY DATE:
March 22, 2007	March 22, 2008

DOCUMENTS INCLUDED IN THIS APPROVAL:	DATE APPROVED: April 19, 2007	

Document Name	Version	Date
Consent Forms:		
Parental Consent	2	April 4, 2007
Assent Forms:		
Student Assent	2	April 4, 2007
Questionnaire, Questionnaire Cover Letter, Tests:		
Questionnaire Cover Page	2	April 12, 2007
Emotion Expression Scale for Children	1	March 8, 2007
Emotions & Social Problems	2	April 12, 2007
Friendship Nomination Procedure Script	1	March 8, 2007
Background Information Questionnaire	1	March 8, 2007
Other Documents:		
Proviso Response	1	April 12, 2007

The application for ethical review and the document(s) listed above have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.

Approval is issued on behalf of the Behavioural Research Ethics Board
and signed electronically by one of the following:

Dr. Peter Suedfeld, Chair
Dr. Jim Rupert, Associate Chair
Dr. Arminee Kazanjian, Associate Chair
Dr. M. Judith Lynam, Associate Chair
Dr. Laurie Ford, Associate Chair

Appendix B

Principal Flyer

UBC

Faculty of Education
Department of Educational & Counselling Psychology, & Special Education
2125 Main Mall
Vancouver, BC, V6T 1Z4

Dear School Principal,

We would like to take this opportunity to invite students at your school to take part in a UBC study entitled, "Students' Feelings and Responses to Social Conflict" that is happening this spring. The study is being conducted by Dr. Shelley Hymel and Ph.D. Candidate, Natalie Rocke Henderson, from the Faculty of Education. Briefly, here is what you need to know:

What is the study about?

This study deals with the common problem of bullying, a subset of aggressive behavior that occurs among normal groups of school-age children. We would like to work with students in grades 6 and 7 at your school to find out, as **bystanders**, (a) what **strategies** they have for dealing with bullying, (b) the **reasons why** they do what they do, and (c) what role their **emotions** play in these situations. Students who receive parental permission will be invited to complete a series of questionnaires that will take approximately 45 to 60 minutes of class time to complete. More information about the study rationale, measures, and procedures is available.

What will be required?

Principals...
- will help to identify grade 6 and 7 teachers who are willing to participate.

Teachers will be asked to...
- arrange a time for the researchers to come into class to explain the study and hand out parental consent and student assent forms (15 minutes of class time).
- decide what compensation would be best for their students (a class pizza party or draw for a gift certificate).
- gather consent and assent forms as students return them.

- schedule a group testing session (1 hour) with the researchers.
- assign a task/work to students not participating in the study.
- be present at all times when the researchers are in class with students.

Students...
- will need to return signed parental consent forms and fill out student assent forms for themselves.
- will be asked to fill out a series of questionnaires.

How might your school benefit?

We sincerely hope that you'll consider taking part in our study. Canadian research, including our own studies in schools within the Lower Mainland suggests that bullying occurs frequently. This study addresses several gaps in our understanding of how children deal with bullying. Advancement of our knowledge of what children try to do when bullying occurs, what it is they hope to accomplish, and the emotion processes that impact how they respond has enormous potential to explain what leads to effective and ineffective bystander responses. More importantly, this information can be used to inform and support teacher-directed intervention efforts aimed at reducing school bullying. After we have completed the study, we would be more than happy to share what we find with you and your staff.

For more information, please contact Shelley Hymel (shelley.hymel@ubc.ca; 604-822-6022) or Natalie Rocke Henderson (rocke1@telus.net; 604-889-0772). In the next few days, Natalie will contact you to find out whether or not you're interested in involving your school.

Shelley Hymel, Ph.D. & Natalie Rocke Henderson, M.A.

Appendix C

Consent Forms

STUDENTS' FEELINGS AND RESPONSES TO SOCIAL CONFLICT

Principal Investigator: **DR. SHELLEY HYMEL**
Department Head
Dept. of Educational & Counselling Psychology, & Special Education
Faculty of Education, UBC
Phone: (604) 999-9999

Co-Investigator: **NATALIE ROCKE HENDERSON**
Ph.D. Candidate
Faculty of Education, UBC
Phone: (604) 999-9999
Please note: This study will be completed to fulfill the dissertation requirements for a Doctor of Philosophy degree in School Psychology in the Department of Educational & Counselling Psychology, & Special Education

DEAR PARENT OR GUARDIAN,

As you know, children are sometimes faced with social pressures and interactions that can make school a difficult place to be. At your son/daughter's school, we are trying to find out more about how students handle and feel about difficult social situations through a research project entitled, "Students' Feelings and Responses to Social Conflict." We are writing to ask permission for your son or daughter to participate in this project. We hope that all students can take part, but only those students who receive parent permission to participate and who agree themselves will be involved. To help in this decision, we offer a description of the project below.

PURPOSE:

In the project, we want to learn about how children deal with social conflict that involves people they know and how such conflict influences (or is influenced by) how children think, feel, and act.

STUDY PROCEDURES:

Students in grades 6 and 7 will be invited to participate in a group testing session (approx. 45 minutes in length) that will be carried out during regular school hours at a time acceptable to teachers and staff. During the session, students will be asked to complete a series of questionnaires. The questionnaires ask them to provide information about their background (i.e., age, gender, ethnicity) and whether or not they show negative feelings. In one of the questionnaires, students will be presented with a series of hypothetical stories that describe a social conflict. Students will be asked to imagine that the situation involves a friend or someone with whom they are not friends. Following each story, students will be asked rate a series of statements about how they might respond to the situation as an observer (e.g., "What would you say or do if you saw this happen? Would you tell an adult?" "How important would it be for you to solve the problem?"). They will also be asked to rate statements about their feelings (e.g.,

PARENTAL CONSENT (PAGE 2 OF 3)

"How sad would you feel if you saw this happen?" "Would you show or not show how sad you feel?").

Only those students who receive parental permission and who themselves agree to participate will be invited to take part in the study. Of course, student participation is entirely voluntary and students may withdraw from the study at any time. Students' class standing, marks, or schoolwork will not be affected in any way by whether or not they participate in this project. Students who do not participate will continue with regular classroom work during the session.

CONFIDENTIALITY:

All information collected in this project is considered confidential and will only used for research purposes. Information from individual students will not be reported; we are only interested in group results. In order to keep responses confidential, students' responses will be identified with subject numbers (not student names).

Input from students can help us understand social issues they face and how to best support them and provide a safe learning environment. To inform us of your decision, please fill out the attached permission slip and have your son/daughter return it as soon as possible. **We ask that you have your son or daughter return the permission slip regardless of whether you do, or do not give permission**. Please keep a copy of this letter and the second copy of the consent form for your records.

As compensation for participating in the study, the researchers will host a class pizza party at a lunch hour that is suitable for the teacher. All students, including those who do not participate in the study, will be included.

CONTACT FOR INFORMATION ABOUT THE STUDY:

If you have any questions about the project, you may call Dr. Shelley Hymel (604-999-9999) or Natalie Rocke Henderson (604-999-9999).

CONTACT FOR CONCERNS ABOUT THE RIGHTS OF RESEARCH SUBJECTS:

If you have any questions about your child's rights and treatment as a research participant, you may contact the Research Subject Line in the UBC Office of Research Services at 604-822-8598.

Thank you for considering our request.

Sincerely,

Shelley Hymel   Natalie Rocke Henderson

PLEASE KEEP FOR YOUR RECORDS

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PARENTAL CONSENT FORM

Study Title: Students' Feelings and Responses to Social Conflict

Principal Investigator: Shelley Hymel, Ph.D., Faculty of Education, University of British Columbia.

Co Investigator: Natalie Rocke Henderson, Ph.D. Candidate, Faculty of Education, University of British Columbia.

Consent: I have read and understood the attached letter of request for participation in the study entitled "Students' Feelings and Responses to Social Conflict." I understand that I may keep the letter of request for my own records. I also understand that my child's participation in this study is entirely voluntary and that he/she may refuse to participate or withdraw from the study at any time without any consequences or impact on his/her schoolwork. My decision regarding my son/daughter's participation in this study is indicated below:

      _____ **YES**, my son/daughter has my permission to participate.

      _____ **NO**, my son/daughter **DOES NOT** have my permission to participate.

Son/Daughter's Name: _____ Grade: _____

Parent or Guardian Signature _____ Date: _____

PLEASE RETURN THIS SLIP TO THE SCHOOL

PARENTAL CONSENT FORM

Study Title: Students' Feelings and Responses to Social Conflict

Principal Investigator: Shelley Hymel, Ph.D., Faculty of Education, University of British Columbia.

Co Investigator: Natalie Rocke Henderson, Ph.D. Candidate, Faculty of Education, University of British Columbia.

Consent: I have read and understood the attached letter of request for participation in the study entitled "Students' Feelings and Responses to Social Conflict." I understand that I may keep the letter of request for my own records. I also understand that my child's participation in this study is entirely voluntary and that he/she may refuse to participate or withdraw from the study at any time without any consequences or impact on his/her schoolwork. My decision regarding my son/daughter's participation in this study is indicated below:

      _____ **YES**, my son/daughter has my permission to participate.

      _____ **NO**, my son/daughter **DOES NOT** have my permission to participate.

Son/Daughter's Name: _____ Grade: _____

Parent or Guardian Signature _____ Date: _____

PLEASE KEEP THIS COPY FOR YOUR RECORDS

Dear Student,

In the next couple of weeks we will be inviting you to take part in our study called, "Students' Feelings and Responses to Social Conflict." Your parents will decide whether or not it is okay for you to work on this project but you will also need to decide whether or not you want to participate. We would really like for you to be part of our study. To help you with your decision there are a few things you should know:

- We want to find out more about how students your age deal with social conflict. If you decide to be in this project, you would be asked to fill out questionnaires about
  - Your background (age, grade),
  - Whether you show your feelings,
  - How you deal with difficult social situations that involve people you know, and
  - Your feelings in difficult social situations that involve people you know.

- The questionnaires will take about **45 minutes** of class time to complete.

- **The information you provide will be kept confidential**. This means that we are not going to show your answers to anyone. In fact, your name will not appear anywhere on your questionnaires. We are only interested in how students as a group answer our questions.

- It is not a problem if you decide not to be in the project now or at any time. This means that:
  - Your participation in this project does **not affect your schoolwork** at all, whether you participate or not,
  - You may withdraw from the project at any time, and
  - You are not being tested which means there are no right or wrong answers and how you answer our questions **will not affect your grades**.

- To thank your class for taking part in the study, we will host a class pizza party for everyone.

You do not need to decide right now if you would like to take part in the study. We are asking that you take this letter and the parental consent letter home. When you've decided, please fill out the form and bring it back to school. When we come back, and if your parents say it's okay for you to participate, you will be given some questionnaire that you may or may not choose to fill out. The decision will be yours.

We will be happy to answer any questions you have now. If you have any other questions later you may call Shelley Hymel (daytime: 604-999-9999, evenings: 604-999-9999) or Natalie Rocke Henderson (604-999-9999).

Please let us know if you would like to take part in the study and sign below:

_____ **YES**, I would like to participate.

_____ **NO**, I **DO NOT** want to participate.

Student's Name
(please print): _____   Grade: _____
Student's Signature _____   Date: _____

Background Information Questionnaire

General Information:

1. How OLD are you (in years)?		2. What GRADE are you in?	6	7
3. What is your BIRTHDATE?	M o n t h / D a y / Y e a r	4. Are you a BOY or a GIRL?	BOY	GIRL

5. Which ethnic or cultural group(s) do you belong to? Check all that apply.

_____ White (for example, Caucasian, European descent, etc.)

_____ Chinese

_____ South Asian (for example, East Indian, Pakistani, Sri Lankan,)

_____ Black (for example, African, Haitian, Jamaican, etc.)

_____ Filipino

_____ Latin American (for example Mexican, South/Central American, etc.)

_____ Aboriginal (North American Indian, Metis, Inuit, etc.)

_____ South East Asian (for example, Vietnamese, Cambodian, Malaysian, Laotian, etc.)

_____ Arab

_____ West Asian (for example, Iranian, Afghan, etc.)

_____ Japanese

_____ Korean

_____ Not sure

_____ Other ethic or cultural group(s) (If you would describe you ethnic or cultural heritage in some way that is not listed above, please describe your heritage in the space provided):

_____

6. When you're at home with your family, do you speak English most of the time?

_____ Yes   _____ No

(If no, what language do you speak at home with your family?)

_____

7. Have you lived in Canada all your life?

_____ Yes   _____ No

(If no, how long have you lived in Canada?)

_____

Appendix E

Practice Items

In a few minutes you are going to fill out two questionnaires on your own.

QUESTIONNAIRE #1:

In the first questionnaire, you will read 6 stories like the sample story below and answer some questions. The questions are in 3 sections.

Sample Story:

> At lunch one day, you and some other kids are playing soccer. A kid who is not playing with you accidentally gets hit in the head with the ball. They look hurt.

Section 1: Tell us about your feelings…

<u>Circle only one answer</u>. Choose the feeling that would be the strongest.

1. If I saw this happen, I would **feel**…	**Happy** (good, excited)	**Angry** (mad, annoyed)	**Sad** (unhappy, upset)	**Scared** (worried, frightened)	**Neutral**

Sometimes kids' faces look the same as how they feel, and sometimes their faces look different from how they feel. How would **your** face look if you saw this happen? <u>Circle only one answer</u>.

2. My face would **look**…	**Happy** (good, excited)	**Angry** (mad, annoyed)	**Sad** (unhappy, upset)	**Scared** (worried, frightened)	**Neutral**

Section 2: Tell us how you would deal with the situation…

3. What would you say or do if you saw this happen? Would you…	definitely **would not**	probably **would not**	probably **would**	definitely **would**
a) go get a teacher or some other adult?	1	2	3	4
b) ignore the whole thing and keep playing?	1	2	3	4

4. In this situation, how important would it be for you…	**not at all** important	**a little bit** important	**pretty much** important	**a lot** important
a) to help the kid who got hit?	1	2	3	4
b) to stay out of it and not get involved?	1	2	3	4

Section 3: Tell us more about your feelings…

5. How **happy** (good, excited) would you feel if you saw this happen?	**not at all**	**a little bit**	**pretty much**	**a lot**
6. Would you show or not show how **happy** (good, excited) you feel?	definitely **would not** show	probably **would not** show	probably **would** show	definitely **would** show

QUESTIONNAIRE #2:

In the last questionnaire, you will need to read some sentences like these and tell us how true each one is for you.

	not at all true	**a little**. true	**somewhat** true	**very** true	**extremely** true
7. I like to play sports.	1	2	3	4	5
8. I do things with my friends.	1	2	3	4	5

Appendix F

Friendship Nomination Script

In a few seconds, I am going to ask you to write down the initials of some kids. Before you do this, I want to remind you that you need to keep your answers to yourself during this session and afterwards.

What you need to do now is think of 3 kids who are your close friends. These kids need to be about the same age (so in the same grade) and the same gender. If you are a girl, the close friends that you think of need to be girls. If you are a boy, the close friends you think of need to be boys. I know that some of you may have close friends who are the opposite gender but for this task, it's really important that the friends are the same gender.

At the bottom of the questionnaire, under the arrow that says "CLOSE FRIENDS," there are slots with numbers 1, 2, and 3. Beside #1, I want you to write the initials of one of your close friends. In slot #2, write the initials for another close friend, and in slot #3, write the initials of one more close friend.

Remember, if you can only think of one or two names, we are not just talking about best friends, we are talking about people who are close friends which means you hang out together, talk, and do things together. Please think of 3 different close friends. Remember, they need to be about the same age and the same gender. Write them in slot numbers 1, 2, and 3.

Any questions? Go ahead. If you don't understand, put up your hand and one of us will come to help you.

[RA: Please circulate and make sure kids are writing initials (or names) in the correct slots. Students should be encouraged to think of people in their class, if they cannot, it's okay for them to nominate individuals who are not in their class or not in their school BUT remind them that they HAVE TO BE THE SAME AGE/GENDER.]

Okay, now I want you to think of 3 more names. This time, you need to think of three people about the same age and the same gender who are NOT one of your friends. These are people you know but don't do things with, don't really talk to, and don't really hang out with.

Under the arrow that says, "NOT FRIENDS," I want you to write the initials of one of the people who are not one of your friends in slot #4. In slots #5, and #6, write the initials of 2 other kids who are not one of your friends.

Put your hand up if you need help.

Social Problem-Solving and Emotion Processes Questionnaire

When you read this story, we want you to imagine that what happens in the story happens to the person whose initials you wrote down. To help you remember who the person is, you've written their initials at the bottom of THIS page.

Read the story.

Story 1:

> You are in the library doing some work on a project with a bunch of kids from your class. You are sitting across from some classmates who are talking about another kid, someone who is **not one of your friends**. They are talking behind their back and laughing. The things they are saying are really mean, rude, and may not even be true. This group of kids always says stuff to be mean to this kid.

Tell us how you would **feel**. Circle only one answer. Choose the feeling that would be the strongest.

1. If I saw this happen, I would **feel**…	**Happy** (good, excited)	**Angry** (mad, annoyed)	**Sad** (unhappy, upset)	**Scared** (worried, frightened)	**Neutral**

Sometimes kids' faces look the same as how they feel, and sometimes their faces look different from how they feel.

How would **your** face look if you saw this happen? Circle only one answer.

2. My face would **look**…	**Happy** (good, excited)	**Angry** (mad, annoyed)	**Sad** (unhappy, upset)	**Scared** (worried, frightened)	**Neutral**

#4 _____

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3. What would you say or do if you saw this happen? Would you…

	definitely would not	probably would not	probably would	definitely would
a) laugh or pretend you think it's funny OR just go along with it?	1	2	3	4
b) tell someone like a teacher, parent or principal?	1	2	3	4
c) ask them why they're saying these things?	1	2	3	4
d) do something about it with some of your friends?	1	2	3	4
e) be nice to OR do something to help the kid they're talking about (like warn them, comfort them or give them advice)?	1	2	3	4
f) stand up for or defend the kid they're talking about?	1	2	3	4
g) tell them to stop?	1	2	3	4
h) ignore them and keep doing my work?	1	2	3	4
i) do something like get other kids to say mean or private things about them OR threaten to do something?	1	2	3	4

4. In this situation, how important would it be for you…

	not at all important	a little bit important	pretty much important	a lot important
a) to help the kid who they're talking about?	1	2	3	4
b) to teach them a lesson so they know what it feels like?	1	2	3	4
c) to get them to stop?	1	2	3	4
d) to be nice or do the "right" thing?	1	2	3	4
e) to stay out of it and not get involved?	1	2	3	4
f) to make sure something like this doesn't happen to you?	1	2	3	4
g) to let someone like a teacher or some other adult deal with it?	1	2	3	4

5. How **angry** (mad, annoyed) would you feel if you saw this happen?	**not at all**	**a little bit**	**pretty much**	**a lot**
6. Would you show or not show how **angry** (mad, annoyed) you feel?	definitely **would not** show	probably **would not** show	probably **would** show	definitely **would** show
7. How **happy** (good, excited) would you feel if you saw this happen?	**not at all**	**a little bit**	**pretty much**	**a lot**
8. Would you show or not show how **happy** (good, excited) you feel?	definitely **would not** show	probably **would not** show	probably **would** show	definitely **would** show
9. How **sad** (unhappy, upset) would you feel if you saw this happen?	**not at all**	**a little bit**	**pretty much**	**a lot**
10. Would you show or not show how **sad** (unhappy, upset) you feel?	definitely **would not** show	probably **would not** show	probably **would** show	definitely **would** show
11. How **scared** (frightened, worried) would you feel if you saw this happen?	**not at all**	**a little bit**	**pretty much**	**a lot**
12. Would you show or not show how **scared** (frightened, worried) you feel?	definitely **would not** show	probably **would not** show	probably **would** show	definitely **would** show

Check to make sure you only have one answer circled per line.

Story 2:

Your teacher has left the classroom for a few minutes and told everyone to read from the textbook until they return. You are sitting at your desk reading when this mean kid walks by and slams **your friend** on the head with their book. Your friend looks hurt. The mean kid is always picking on your friend.

Story 3:

You're in gym class waiting for your teacher to get back from the office. Most kids are standing around talking and a few kids are playing games while you wait. This big kid comes up from behind one of your classmates and pulls down your classmate's shorts in front of the whole class. The person whose shorts have been pulled down is **not one of your friends**, but looks really embarrassed. The kid who did it is always trying to embarrass people, especially the kid whose pants are down.

Story 4:

You are in class when someone beside you passes you a note and says, "Read it and pass it along." You open the note and the note says, "Everyone who HATES _____, sign here." The name of the person on the note is **your friend**. The person who wrote the note and passed it to you is always picking on your friend. You know that this kind of thing would make your friend feel bad.

Story 5:

You are waiting to go in at the end of recess when a few "mean" kids start making fun of **your friend**, calling them things like, "fatso," "fag," "loser." This group is always picking on your friend. Your friend is getting upset and everyone around is laughing.

Story 6:

You are standing in the hallway when you and practically everyone else hears a kid who is always bothering people at school say, "If you don't give me that 20 dollars, I'm going to kick the crap out of you after school." The kid, who is **not one of your friends,** knows they're serious and looks worried.

Appendix H

Examples of Student-Reported Strategies and Goals

Student-Reported Strategies (Rocke Henderson, 2002; Rocke Henderson & Hymel, 2003)

Category	*Examples*
Seeking adult involvement	Telling, informing, or getting an adult Accompanying or offering to accompany victim to tell an adult
Seeking peer involvement	Telling or soliciting the advice of peers; discussing the situation Intervening with peers Influencing peer response (getting peers to intervene, reasoning with peers, actively discouraging peers from joining in)
Talking to the bully	Telling or asking bully to stop; telling bully not to engage in behavior in the future (no reason specified) Reasoning with bully, making an appeal to stop (may include voicing disapproval) Saying positive things about victim Communicating to bully that SS won't participate
Gaining information	Gaining information from the bully, from the victim, from the peer group, or some unspecified individual(s)
Use of hostile/retaliatory behavior	Using physically (hit, push, fight) or verbally (insult, yell, threaten) hostile behavior Retaliating (doing what bully has done to victim)
Prosocial behavior towards the victim	Comforting victim; inquiring whether or not victim is okay; talking to victim; some other situation-specific act of kindness Warning or informing victim; giving advice to victim
Direct intervention	Situation-specific intervention strategy Hanging around, playing with victim; being victim's friend Getting victim out of situation Actively choosing to not join in or laugh
Enabling bullying behavior	Watching; listening in Laughing Joining in; actively participating Going along with it; pretending to go along with it
Inaction	Avoiding the bully Leaving; ignoring the situation (or the bully); avoiding involvement Treating the victim the same as before
Other	Not captured by existing categories Vague or uninterpretable response 'Don't know'; no response 'I wouldn't ___.' (does not include instances where students report not getting involved)

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Student-Reported Goals (Rocke Henderson, 2002; Rocke Henderson & Hymel, 2003)

Category	*Examples*
Getting the harassment to stop	…stop bully; prevent further harassment …resolve the problem …get bully to listen, calm down, or forget about it …prevent victim from getting hurt (physically or emotionally)
Helping the victim	…comfort victim; make victim feel better; make sure victim is alright …address a specific emotional or physical need …help victim in general …help victim by being his/her friend …help victim by informing him/her
Avoiding involvement	…avoid being involved; avoid having to participate/join in …disassociate oneself from bully or bully's actions …avoid having to pick sides …defer to adults; make adults aware of situation …get/let victim to take own action
General self-interest	…avoid trouble or retaliation from bully or peers; avoid being viewed as a tattletale …avoid trouble with adults …reduce personal distress; do what's easiest; to maintain independence …maintain positive relationships with bully, victim, or peer group members …find out motivations or details of the situation …gain information and figure out next move
General prosocial	…make sure no one (individual not specified) gets hurt, that situation doesn't get worse …try to be nice or not mean …avoid hurting victim personally …get bully to realize the error in his/her ways, get bully to think about what they're doing, get bully to change their mind about victim …prevent/discourage others from joining in; influencing peers to be more positive toward victim …convey that bully's actions are not condoned; convey that I won't go along with it
Negative outcomes for the bully	…get back at bully …make bully feel bad, scared, or intimidated; so bully knows what it feels like …get bully in trouble …teach bully a lesson
Other	Not captured by existing categories Vague or uninterpretable responses

Appendix I

Outliers

The number of outliers among friend strategies: talk to bully = 3, prosocial to victim = 5, direct intervention = 2, enabling = 8, inaction = 2; non-friend strategies: hostility/retaliation = 4, enabling = 1; friend goals: adult involvement = 2, peer involvement = 7, avoid involvement = 4; friend initial emotion: happy = 4, sad = 1, scared = 4, neutral = 4; non-friend initial emotion: happy = 3, sad = 9, scared = 2; friend initial display: happy = 7, sad = 10, scared = 4; non-friend initial display: happy = 4, angry = 8, sad = 13, scared = 11; friend level of emotion experienced: happy = 10; non-friend level of emotion experienced: sad = 1, angry = 1, scared = 2, happy = 1; friend intention to dissemble: scared = 2, happy = 14; non-friend intention to dissemble: sad = 2, scared = 3, happy = 7.

Variables with Extreme Skewness and/or Kurtosis

Enabling strategy, prosocial strategy, help the victim goal when the situation involved a friend. When the situation involved a friend: happy, sad, scared, and neutral initial emotion; happy, sad, and scared initial display; happy level of emotion, happy intention to dissemble, scared and happy level of dissemblance. When the situation involved a non-friend: happy initial emotion; happy, sad, and scared initial display; scared and happy intention to dissemble; sad, angry, scared, and happy level of dissemblance.

Variables with Unequal Variances

Prosocial to victim, enabling, and gain information strategies when the situation involved a friend, and hostility/retaliation strategy when the situation involved a non-friend; help the victim goal when the situation involved a friend.

Sad, scared, and neutral initial emotion and initial display proportion scores when the situation involved a friend; happy sad, scared initial emotion and initial display when the situation involved a non-friend. Scared and happy level of emotion ratings, and sad and scared intention to dissemble ratings when the situation involved a friend; scared level of emotion and intention to dissemble ratings and sad intention to dissemble ratings when the situation involved a non-friend.

Appendix J

Correlations among Level of Emotion Experienced and Intention to Dissemble Ratings

Correlations among Level of Emotion Experienced and Intention to Dissemble Rating for Friend Vignettes

		Level of Emotion Experienced				Intention to Dissemble			
		1	2	3	4	5	6	7	8
Level of Emotion	1. Sad	--	--	--	--	--	--	--	--
Experienced	2. Angry	.31**	--	--	--	--	--	--	--
	3. Scared	.67**	.19**	--	--	--	--	--	--
	4. Happy	-.15**	-.26**	-.13*	--	--	--	--	--
Intention to	5. Sad	.74**	.23**	.56**	.00	--	--	--	--
Dissemble	6. Angry	.15**	.69**	.05	-.15**	.34**	--	--	--
	7. Scared	.50**	.09	.73**	.00	.70**	.22**	--	--
	8. Happy	.05	.00	.000	.28**	.17**	.06	.19**	--

Note. N = 349.

* *p* < .05, two tailed. ** *p* < .01, two tailed

Correlations among Level of Emotion Experienced and Intention to Dissemble Ratings for Non-Friend Vignettes

		Level of Emotion Experienced				Intention to Dissemble			
		1	2	3	4	5	6	7	8
Level of Emotion	1. Sad	--	--	--	--	--	--	--	--
Experienced	2. Angry	.61**	--	--	--	--	--	--	--
	3. Scared	.67**	.51**	--	--	--	--	--	--
	4. Happy	-.32**	-.40**	-.24**	--	--	--	--	--
Intention to	5. Sad	.56**	.34**	.50**	-.16**	--	--	--	--
Dissemble	6. Angry	.34**	.63**	.32**	-.23**	.59**	--	--	--
	7. Scared	.40**	.31**	.61**	-.10	.75**	.56**	--	--
	8. Happy	-.26**	-.35**	-.16**	.72**	.06	-.08	.11**	--

Note. $N = 349$.

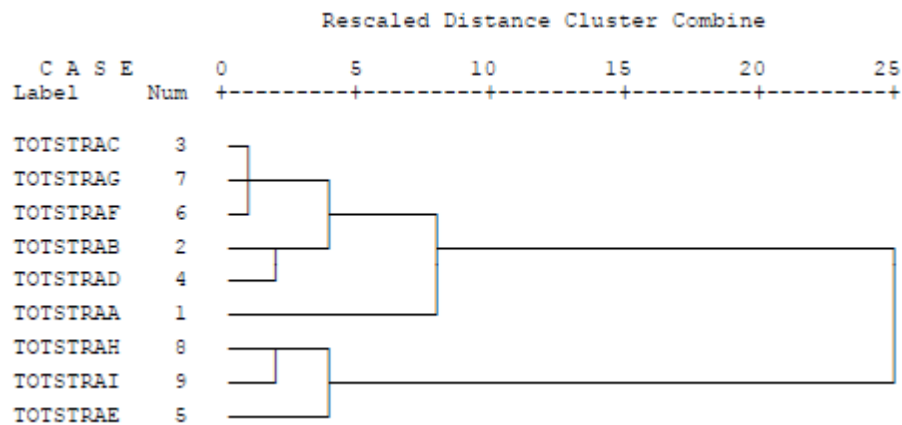* $p < .05$, two tailed. ** $p < .01$, two tailed.

Appendix K

Results of Factor Analysis and Hierarchical Cluster Analysis

Four-Factor Pattern Matrix (Factor Loadings), Orthogonal Rotation

Strategy	Factor 1	Factor 2	Factor 3	Factor 4
Direct Intervention	.75			
Prosocial to Victim	.66		.55	
Talk to Bully	.64	.54		
Peer Involvement	.55			
Gain Information	.41	.88		
Hostility/Retaliation			-.71	
Adult Involvement			.49	
Enabling				.80
Inaction				.45

Dendogram using Complete Linkage (9 strategies)

```
                    Rescaled Distance Cluster Combine

   C A S E      0         5         10        15        20        25
   Label   Num  +---------+---------+---------+---------+---------+

   TOTSTRAC  3  ─┐
   TOTSTRAG  7  ─┼─┐
   TOTSTRAF  6  ─┘ ├───┐
   TOTSTRAB  2  ─┐ │   │
   TOTSTRAD  4  ─┼─┘   ├───────────────────────────────────┐
   TOTSTRAA  1  ─┘     │                                    │
   TOTSTRAH  8  ─┐     │                                    │
   TOTSTRAI  9  ─┼─┐   │                                    │
   TOTSTRAE  5  ─┘ ┘                                        │
```

Three-Factor Pattern Matrix (Factor Loadings), Oblimin Rotation

Goal	Factor 1	Factor 2	Factor 3
Help Victim	.87		
Prosocial	.84		
Get Bullying to Stop	.78		
Defer to Adults	.54		
Self-Interest		.62	
Avoid Involvement		.61	
Negative Outcomes			.62

Dendogram using Complete Linkage (7 Goals)

```
              Rescaled Distance Cluster Combine

  C A S E       0         5        10        15        20        25
 Label    Num   +---------+---------+---------+---------+---------+

 TOTGOALA    1  ─┐
 TOTGOALB    2  ─┤
 TOTGOALE    5  ─┘
 TOTGOALD    4  ─
 TOTGOALC    3  ─
 TOTGOALF    6  ─
 TOTGOALG    7  ─
```