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# Emotional Regulation and Display in Classroom Victims of Bullying: Characteristic Expressions of Affect, Coping Styles and Relevant Contextual Factors

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## Abstract

*Research suggests that victims of bullying may lack skills in emotional regulation, a process which facilitates coping with provocative situations to lessen the stress of negative emotions (Cicchetti, Ackerman, & Izard, 1995). The present study examined the emotional regulation and display patterns of victims during classroom bullying episodes. Children in grades one through six were observed during free play in the winter and spring of three consecutive school years. Results of the study indicated that the coping styles observed in victims of bullying can be grouped into two distinct clusters: 1) problem-solving strategies that are associated with the de-escalation and resolution of bullying episodes; and 2) aggressive strategies that tend to perpetuate and escalate the bullying interaction. Parallels were found between victims' and bullies' emotional displays. Results are discussed in the context of how maladaptive emotional regulation processes may act as risk factors for chronic victimization.*

*Keywords:* victimization; bullying; emotion; coping

Research gathered on chronic victims of bullying suggests that they likely possess characteristic deficits in emotional skills (Olweus, 1994; Perry, Willard, & Perry, 1990), and that these deficits may contribute to the risk of later psychological dysfunction associated with victimization (Neary & Joseph, 1994). The purpose of the present study was to examine the emotional management skills of child victims during classroom bullying interactions. Using naturalistic observations of victims, bullies, and their peers at play, the present study investigated: 1) the nature of victims' emotional regulation coping behaviours; 2) the emotional facial displays of victims and bullies during bullying episodes; and 3) the relationships between victims' coping choices and the subsequent course of bullying episodes. Results of the present study

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provide preliminary data regarding the role of emotional regulation and display in the phenomenon of victimization, and thus, suggest possible victim intervention approaches that address emotional regulation issues.

Perhaps no other phenomenon is more representative of the human psychological experience than emotion; indeed, the discipline of psychology has concerned itself with the study of emotions since the time of Hippocrates (Cicchetti, Ackerman, & Izard, 1995). Historically, researchers have viewed emotions as subjective, intrapsychic feeling states that existed independent of cognition and behaviour. As unique internal processes, emotions were thought to terminate with the individual; consequently, emotions were not seen to have an effect on the determination of external events (Campos, Campos, & Barrett, 1989). More recently, the influences of systems theory, ethology, and developmental psychopathology have prompted researchers to consider the multiple components and roles of emotion in both intrapersonal and interpersonal relationships (Campos et al., 1989). For instance, an individual's autonomic arousal level, subjective feeling state, and cognitions are all potential influences on that individual's expressive displays and behavioural choices in a particular social context. Similarly, an individual's emotion-based displays and behaviours function to communicate their reactions and intent to those with whom they interact. Thus, the conceptualization of emotion in the psychological literature has shifted towards recognizing emotion as a dynamic system connected to other key psychological processes.

As a system, emotion functions to *establish, maintain, or disrupt the relations between an individual and their internal and external environments, when these relationships are of significance to the individual* (Campos et al., 1989). These functions are carried out by the interaction of the three principal components of the emotion system, which together, motivate and organize behaviour: neural processes, expressive display, and subjective emotion experiences (Cicchetti et al., 1995). The neural processes involved in the emotion system are primarily autonomic, somatic, and psychoneuroendocrine nervous functions; for example heart rate variability and cortisol excretion (Dodge, 1989). Expressive display refers to discrete facial expressions, non-verbal behaviour, and overt behavioural responses which signal to others an individual's emotional state. Examples of expressive displays would include smiling, weeping, and aggression. Subjective emotional experiences are the personal affective states of the individual, which are typically conceptualized and referred to as 'feelings' (e.g., anger, joy, surprise, distress, etc.).

Although the emotion system is tripartite, its components are not independent of one another. While each component makes a distinct contribution to the system, the relationships between emotion-based neural processes, display, and feelings are reciprocal causal (Cicchetti et al., 1995). Coordinating and integrating the components of the emotion system is the process of emotional regulation, which includes the modulation of emotional display and internal feeling states, and the guidance of contextually appropriate cognitive processes and behavioural responses. As Cole et al. (1994) note, the emotional regulation process subsumes both the regulated and regulatory functions integral to the efficacy of the broader emotion system. For instance, situational demands often necessitate that the expression of emotion be controlled (or, *regulated*) to foster social relationships. However, emotion is also often needed to organize other psychological functions towards the achievement of goals (a *regulatory* role); for example, consider the influence of sadness as a motivational force in the process of an individual seeking comfort. In short, the emotional regulation process

provides individuals with the capacity to effectively manage their emotion-based expression and cope adaptively with evocative situations (Casey & Schlosser, 1994; Eisenberg, Fabes, Murphy, Maszk, Smith, & Karbon, 1995). The centrality of the emotional regulation process to adaptive psychological functioning must be underscored; in essence, emotional regulation functions to 'facilitate task-oriented behaviour in the face of distracting events and conditions, and avoid or weaken the stress of negative emotions from failure, loss or trauma' (Cicchetti et al., 1995, p.8). Thus, the emotional regulation process provides a foundation for health in both intrapersonal and interpersonal psychological experiences.

The notion that the emotion system plays an essential role in individual psychological well-being is widely supported in the developmental literature. Given that stressful life situations are unavoidable for humans, the capacity to modulate, tolerate, and cope with experiences that produce negative affect represents a developmental task essential to adaptive functioning (Kopp, 1989). The centrality of emotional regulation to adaptive behaviour can perhaps be seen most readily in the development of social competence. Emotional regulation provides the underpinnings for behavioural self-regulation, which is assessed by an individual's ability to fulfill social conventions and roles—including expectations regarding situationally appropriate emotional responses (Kopp, 1989). In infancy and early childhood, children are able to rely upon caregivers as external sources of emotional regulation. However, as children approach school age, they spend less time in the company of caregivers, and their success with peers depends heavily on their ability to regulate behaviour in the absence of direct monitoring (Kopp, 1989). Numerous studies have examined the role of emotional regulation in the development of children's social competence and affirmed its importance (e.g., Casey & Schlosser, 1994; Eisenberg et al., 1995; Eisenberg et al., 1997).

Because emotional regulation and display facilitate adaptive responses to provocative stimuli, observations of children's displays and behaviour in negative, conflictual or stressful situations should provide insights into the role of emotional processes in childhood social and psychological functioning. One such childhood conflict situation is the bullying interaction. According to Olweus (1994), 'A person is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other persons' (p.413). The bullying interaction is a particularly representative example of the childhood conflict situation, inasmuch as approximately 10% to 20% of school-aged children report having been victimized; and approximately 3% to 10% report being severely bullied on a regular basis (Olweus, 1994; Perry, Kusel, & Perry, 1988). Chronically victimized children are frequently described as being younger, smaller, and physically weaker than their peers, and it is hypothesized that their small stature and less advanced emotional development make them attractive targets to the bully seeking social dominance (Olweus, 1994; Perry et al., 1988).

However, while attributes such as small size and physical weakness characterize many victims, researchers have anecdotally consistently identified two sub-groups of victims. The first major victim sub-group is the passive victim sub-group. Passive victims are often described as low-conflict victims, because they are rarely observed engaging in aggressive behaviour. Rather, the passive victim is generally withdrawn, avoidant of conflict, and ineffectual at using persuasion or other conflict management tactics to end the bullying interaction. Passive victims tend to capitulate to their bullies, are also prone to crying easily, lacking in humour and broader prosocial skills, anxious,

physically weak, and peer-rejected (Olweus, 1994; Perry et al., 1988; Perry, Perry, & Kennedy, 1992).

In contrast, the second major sub-group of victims is represented by the provocative, or aggressive, victim. Aggressive victims are also described as high-conflict victims, as they actively antagonize bullies and other children, and will attempt to counter-attack when bullied. While the aggressive victims will try to resist the overtures of bullies, they are rarely successful at doing so, and ultimately tend to lose the conflict (Olweus, 1994; Perry et al., 1988; Perry et al., 1990; Perry et al., 1992). Aggressive victims have been observed to be argumentative, disruptive, prone to respond to teasing with anger, and persistent in attempting to enter peer groups where they are unwelcome (Pierce, 1990, as cited in Perry et al., 1992).

The distinction between passive and aggressive victims is likely an important one, as it appears that passive and aggressive victims cope with bullying in markedly different ways, and these differences in coping styles may have important implications for the resolution of bullying episodes as well as an individual's risk for future victimization. In general, effective coping responses require an individual to demonstrate a number of discrete skills that represent important emotion-based developmental tasks: frustration tolerance, engaging others, recognizing danger, coping with fear and anxiety, and defense of self and property in a socially appropriate manner that both modifies the situation and minimizes its associated deleterious short- and long-term effects (Cole et al., 1994). In the case of bullying, executing an adaptive response to the bullying interaction requires the victim to control his/her own feelings and physiological arousal, accurately interpret the bully's actions, minimize immediate personal damage (physical, material, psychological, social), end the bullying, and discourage the bully from future victimization attempts (Dodge, 1989; Kopp, 1989). Thus, emotional regulation skills are at the core of an adaptive coping response: victims must monitor and control their own feelings and displays, appraise the bully's signals, and integrate such intra- and interpersonal information to develop and execute an effective coping strategy. Indeed, in their classic work, *Stress, Appraisal, and Coping*, Lazarus and Folkman (1984) emphasize that the management of negative emotions is essential to the production of effective coping. In this context, the coping strategies used by victims may be seen as the behavioural outcome (or evidence) of emotional regulation processes (Eisenberg et al., 1995). Should the victim lack skills in emotional regulation, the episode may escalate in violence, and a precedent may be set for future victimization.

Indeed, Perry, Willard, and Perry (1990) suggested that 'the developmental continuity in the reactions of victimized children may contribute to their being abused by aggressive peers' (p.1321). With respect to passive victims, a number of studies appear to offer descriptive evidence that both the coping styles and emotional displays of passive victims serve to reinforce bullies and perpetuate the cycle of victimization. For instance, Olweus (1994) found that frequently attacked preschoolers reinforced bullies by crying, acquiescing and failing to fight back.

Similar evidence suggests emotional regulation difficulties in the aggressive victims. In a recent observational study of the development of peer rejection and victimization, Olson (1992) found that the inability of aggressive victims to behave prosocially in the early stages of peer relationships, and their proactive use of aggression with peers, served as both catalysts and maintenance factors for their ensuing victimization. The exaggerated displays of distress and frustration that have been observed among aggressive victims also suggest that they may have difficulty emitting situa-

tionally functional emotional displays (Perry et al., 1992), and that expectations of such displays often motivate bullies to attack (Perry, Willard, and Perry, 1990).

In summary, the anecdotal evidence gathered on victims' behaviour during bullying interactions suggests that victims of bullying may lack skills in emotional regulation and display. These deficits have long-term consequences: victims of bullying are more likely than their non-victimized peers to suffer from peer rejection, depression and low self-esteem (Craig, in press; Eisenberg, Fabes, Carlo, & Karbon, 1992; Neary & Joseph, 1994; Olson, 1992). Such evidence supports the concept of a developmental trajectory in which an individual's ability (or failure) to acquire emotional regulation skills predicts their level of social competence and future psychological health. Yet, to date, no research has directly empirically examined the question of emotional regulation and display in victims of bullying. The present study addressed this gap by examining the emotional regulation and display patterns of victims of bullying, and the relationship of these patterns to the situational outcomes of bullying episodes. Based upon the existing literature, the authors hypothesized that the data gathered in the present study would demonstrate emotional regulation deficits in victims of bullying, via coping behaviour and emotional display evidence. We also hypothesized that the poor coping and display choices of victims during bullying interactions would adversely influence the length and severity of bullying interactions. By directly observing the coping strategies used by victims of bullying, the present study also provided an empirical means for testing whether previous observations of passive and aggressive victim sub-groups could be replicated, as the authors hypothesized that they would be. Thus, this research acted as an exploratory step towards the investigation of emotion-related influences on childhood psychosocial functioning, and offers insights into potential emotion-based intervention strategies for victims of bullying.

## **Method**

The present study was an extension of ongoing research evaluating the effectiveness of an anti-bullying program in two urban, Canadian elementary schools. Over the course of the anti-bullying study, more than 240 playground and 120 hours of classroom interaction were videotaped. The current study used these rich observational data to examine emotional display and emotional regulation in the situational victims of classroom bullying episodes. Playground episodes were not included in the scope of the present study, as they provided insufficient data to code affective displays reliably. Furthermore, while the playground is most frequently the location of bullying interactions, many bullying interactions take place in the classroom, and the classroom data provided ample, valid observations of bully and victim dynamics.

### *Participants*

Participants in the study were children in grades one through six. Parents of participants gave informed consent and children agreed to participate prior to the commencement of the study.

Self, peer, and teacher nominations of bully / victim status were obtained for all children in grades one through six participating in the anti-bullying study. From the original anti-bullying sample, one hundred twenty children were selected to act as a videotaped sub-sample. The videotaped sub-sample was selected according to the following procedure.

The nomination measures used reflected the full spectrum of bullying behaviour, including physical, verbal, and relational/social aggression. Subject self-nominations were obtained through a Bully / Victim Questionnaire adapted from Olweus (1989). Subject responses to 'How often have you bullied since the beginning of the school year?' and 'How often have you bullied in the last five days?' were summed to determine self-nominations for bully status. Similarly, subject responses to 'How often have you been bullied since the beginning of the school year?', 'How often have you been bullied in the last five days?', 'How often does it happen that other kids won't let you join in what they're doing?' and 'How often do you spend recess alone?' were summed to measure victim status. Summed scores on both measures were then standardized within class and gender. Standard scores of .75 or higher were taken as self-nominations of bully, victim or bully / victim (both scores at .75 or greater) status. Delineation of the sample at scores .75 or greater identified children whose status scores were at the 67th percentile and above.

Peer nominations of bully / victim status were obtained using a class play format of the Modified Peer Nomination Inventory (MPNI) (Masten, Morison, & Pellegrini, 1985; Perry, Kusel, & Perry, 1988). Subjects were asked to imagine that their class was putting on a play, and accordingly, nominate peers that they felt could best play a part, based upon specific behavioural descriptions. Seven aggression and seven victimization descriptions were provided, along with several distracter items. Summed scores on the aggression and victimization measures were standardized within class and gender. Standard scores of .75 or higher were taken as peer nominations of bully, victim or bully / victim (both scores at .75 or greater) status.

Teacher nominations were obtained through the use of a nomination form which asked teachers to identify which children in the class fit behavioural descriptions of bullies and victims. Children nominated in both categories were classified as bully / victims.

Children who received at least two concurring nominations of bully, victim, or bully / victim status were selected for the videotaped sub-sample. In total, the videotaped sub-sample was comprised of 60 female and 60 male subjects, with a mean age of 10.1 years and standard deviation of 1.7 years. In terms of peer nomination status, both the male and female videotaped sample groups were comprised of 15 bullies, 15 victims, 15 bully/victims, and 15 comparison children. In the present study, the behaviour of each target child was videotaped and coded, as were the interactions of other children that the target child interacted with where they were relevant to the purposes of the study.

### Measures

*AFFEX system of emotional display.* The AFFEX system (Izard, Dougherty, & Hembree, 1989) was used to code the duration and types of emotional display of both victims and bullies in each bullying episode. The AFFEX system consists of ten types of emotional expressions, as well as combinations of any two or more types, including: interest, joy, surprise, sadness, anger, disgust, contempt, fear, shyness, and pain.

*Emotional regulation coping style codes.* Behavioural evidence of an individual's emotional regulation processes can be observed in their chosen coping styles during negative situations. For the purposes of this study, the chosen behavioural coping

responses of victims in each bullying episode were coded according to a key adapted from Eisenberg et al. (1995) which describes a range of different coping behaviours. These coping styles include: instrumental coping (constructive action, problem-solving); instrumental support (talks with others to find solution); instrumental intervention (asks others to help solve problem); emotional intervention (cries for help); emotional support (talks with others to elicit support); physical aggression; verbal aggression; venting (emotional outburst); cognitive restructuring (looks at the situation more positively); avoidance; ignores / distraction; and denial.

### *Procedure*

*Observation.* Observational data were collected over six time periods, in the winter and spring of three consecutive school years. Filming was performed by trained research assistants over the course of three weeks. Video cameras and microphone receivers were placed strategically in the classroom for maximum filming angle with minimal camera movement. Target children wore a waist pouch containing a wireless FM transmitter which picked up the speech of the target child and those around him/her. Each target child was filmed during unstructured free play in the classroom environment for approximately 10 minutes of each of the six observation periods, at random times throughout the periods. To decrease the salience of the transmitter, all other children in the target child's classroom were asked to wear a placebo pouch which was outwardly identical to the transmitter pouch, but contained a wooden block. Children who wore the placebo pouches gave their consent to the procedure; approximately 3% refused to wear the placebo pouches.

*Coding.* In the context of the ongoing research program that the present study was a part of, video footage of all target children across observational periods had been screened and coded to identify bullying episodes. Cohen's Kappa inter-rater reliabilities for the presence of bullying and type of aggression involved in each episode were all .90 and greater. The present study used these identified videotaped classroom bullying episodes as the basis for coding the coping behaviours and emotional displays of bullies and victims during bullying interactions. Coders for the present study were two female psychology students who trained together until they reached 80% agreement, and then coded independently. Coders were blind to the child's nomination status of bully, victim, or bully/victim. Indeed, initial nomination status was only relevant as the criterion for inclusion in the videotaped sub-sample. When each episode was coded for coping styles and emotional displays, bullies and victims were determined situationally, by the roles children assumed during the bullying episode (irrespective of their initial nomination status). For the remainder of this paper, discussion of bullies and victims in the present study refers to these situational roles. However, it is important to note that 72% of the situationally observed victims in this study received peer-nominated 'victim' or 'bully-victim' status at least once across the six data collection periods; providing evidence for the validity of the observations made in this study.

*AFFEX system of emotional display.* The onset and offset of all discrete facial expressions displayed by the bully and their victim were coded throughout the duration of each bullying episode. Of the total classroom episodes, 148 were suitable for AFFEX coding. Those episodes that were not coded failed to meet the rigorous requirements of the AFFEX system; either because more than one third of the partic-

ipants' faces were obscured, or because the participants' faces were too far from the camera to discern sufficient detail for reliable coding. Of the coded episodes, 20% were randomly chosen and independently double-coded. Using the AFFEX standard method, which accounts for both display type and duration, inter-rater reliabilities for the AFFEX displays of bullies and victims were as follows: interest (.86); joy (.94); surprise (.71); sadness (.75); anger (.88); contempt (.86); shame (1.00); distress (1.00); sadness/anger blend (1.00); surprise/interest blend (1.00); and surprise/anger blend (1.00). To note, AFFEX display types not reported in the reliability estimates were not observed in the double-coded sample.

*Emotional regulation coping styles and contextual variables.* During the course of coding, observers felt that it was necessary to add a thirteenth code, 'acquiescence / compliance,' to the coping style coding key. In numerous circumstances, victims appeared to simply comply with the demands made of them by the bully, and this style of coping behaviour did not appear to be adequately described within the original coping coding scheme. Thus, the category was added, and all previously coded episodes were screened and recoded, where appropriate. With respect to contextual variables, for each coping style observed, coders used 3-point scales to rate the degree to which the coping style appeared to: 1) escalate/de-escalate; and 2) perpetuate/resolve the episode.

Of the total classroom bullying episodes, 308 were suitable for coping style coding. The relatively overt nature of gestures and words made coding the coping styles somewhat easier than coding the AFFEX displays (which required detailed analysis of small facial areas); however, in some cases participants were still obscured or too far from the camera to reliably code their coping behaviour. Of those episodes that were coded, 20% were randomly chosen and independently double-coded. Using Cohen's Kappa, inter-rater reliabilities for coping styles and coping style effect on escalation and resolution were as follows: escalation effect (.68); resolution effect (.72); instrumental coping (.90); instrumental intervention (1.00); emotional intervention (1.00); physical aggression (.95); verbal aggression (.97); venting (1.00); cognitive restructuring (1.00); avoidance (1.00); ignores/distraction (.96); denial (.71); and acquiescence/compliance (.90). Coping styles not reported in the reliability calculations were not observed in the double-coded sample.

## Results

### *Emotional Display*

The number of AFFEX changes observed per episode ranged from 1 to 26 among victims, and from 1 to 36 among bullies. Both bullies and victims displayed a mean of 5 AFFEX changes per episode, with standard deviations of .38 and .32, respectively.

During aggressive interactions, a select few emotional displays characterized victims and bullies. Figure 1 presents the frequencies for each emotional display type observed among victims. The emotional displays of interest, joy, and anger comprised the most frequently observed group, accounting for 67% of all victim emotional displays during classroom bullying episodes. The next most frequent group of surprise, sadness, contempt, and distress accounted for 27% of victims' emotional displays during classroom bullying interactions. The remaining eight displays accounted for only 6% of those observed among victims.

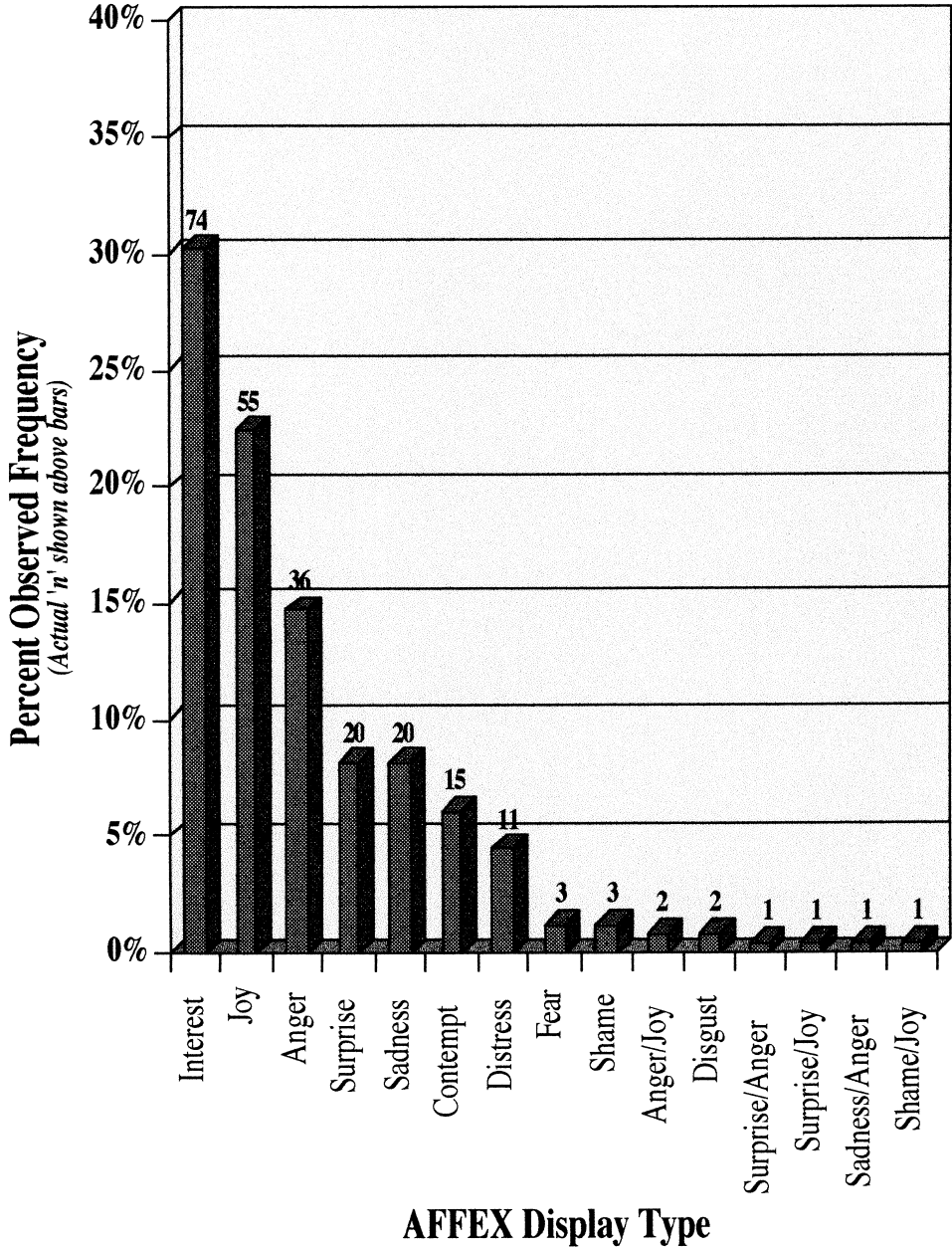


Figure 1. Observed Frequency of Victim AFFEX Displays.

The concentration of displays among a few select categories was also pronounced for bullies. Figure 2 presents the frequencies for each emotional display type observed among bullies. The emotional displays of interest, joy, and anger were by far the most characteristic of bullies, comprising 90% of their observed displays. Of the remaining eleven displays, only contempt and surprise were observed with greater than 1% frequency.

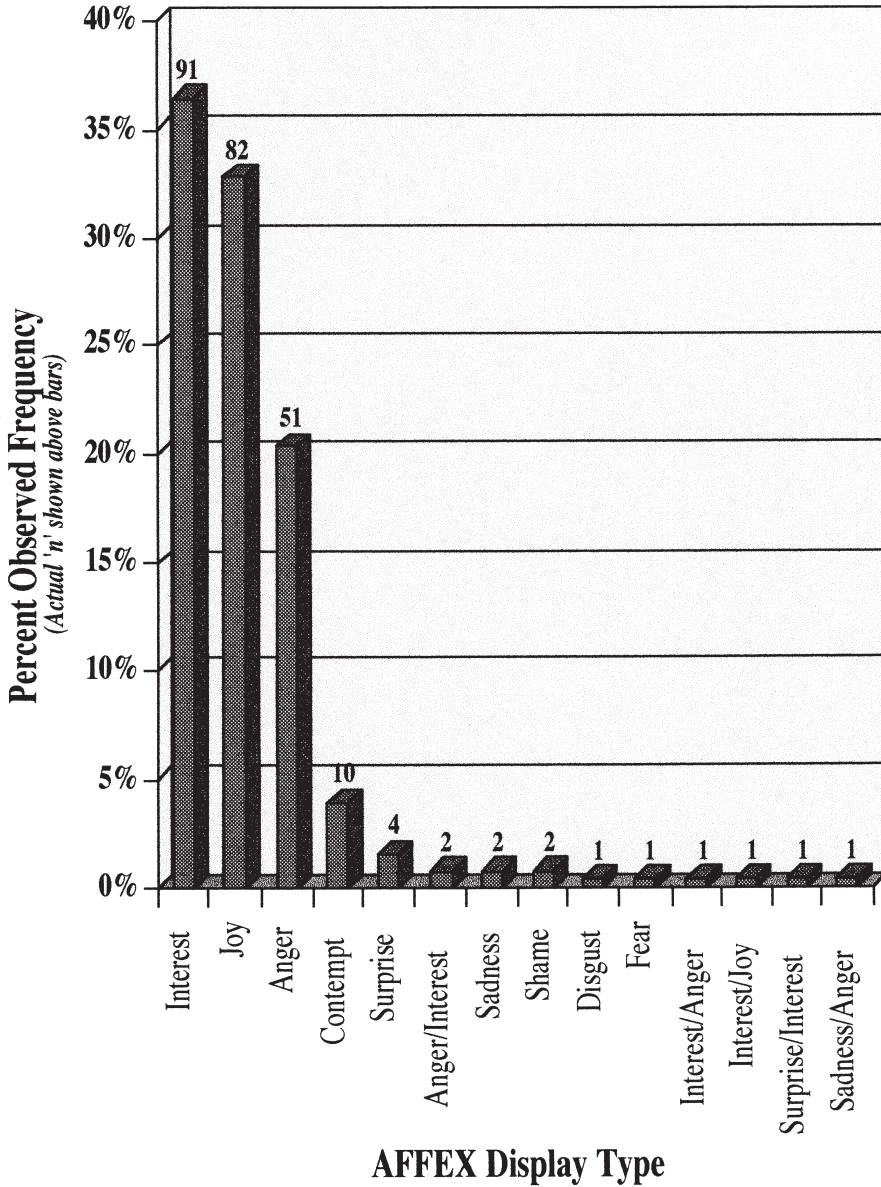


Figure 2. Observed Frequency of Bully AFFEX Displays.

The emotional displays of interest, joy, anger, contempt, surprise, and sadness were among the six most frequent emotional displays of both bullies and victims. To determine whether there were significant differences in the relative proportions of observed emotional displays of bullies and victims, Z-tests of proportion were performed for each of these top six AFFEX displays. Results of the analyses indicate that bullies showed a significantly greater proportion of joy ( $Z = 2.59, p < .01$ ) and anger ( $Z = 1.68, p < .05$ ) displays than victims did. Victims, however, showed a significantly greater proportion of surprise ( $Z = 3.42, p < .001$ ) and sadness ( $Z = 4.09, p < .0001$ )

in their emotional displays than did bullies. Differences in the proportions of interest and contempt displays used by bullies and victims were not statistically significant.

*Emotional Regulation*

The number of coping styles observed per episode ranged from 1 to 26, with a mean of 2 coping styles per episode and standard deviation of 2.83. Figure 3 presents the

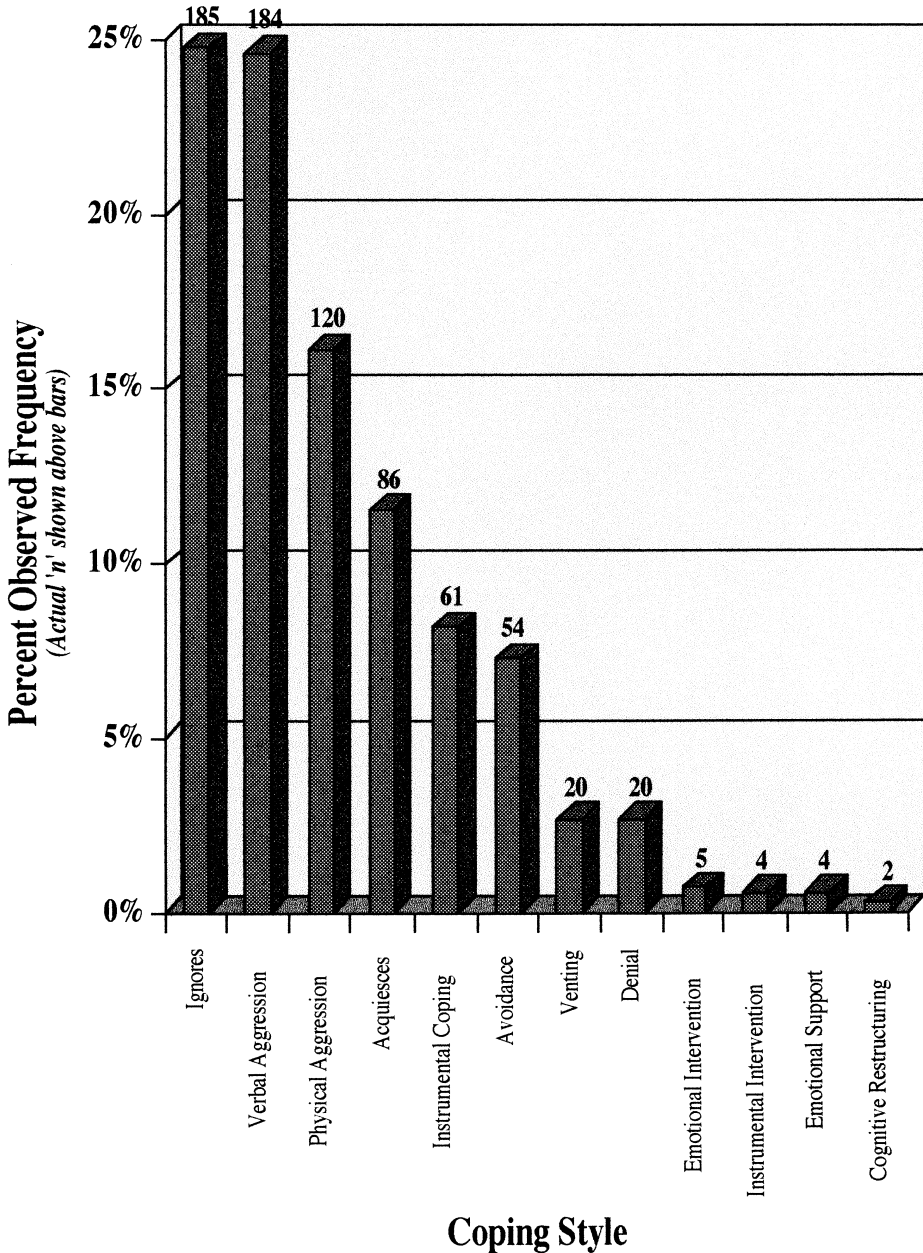


Figure 3. Observed Frequency of Victim Coping Styles.

total and percentage observed frequencies for each coping style. The styles of ignores/distraction, verbal aggression and physical aggression comprise the most frequently observed group of coping styles, accounting for 66% of the total number of coping responses observed. The group of acquiescence, instrumental coping and avoidance comprise the second most frequently observed group, accounting for 27% of the observed coping styles. The remaining seven coping styles accounted for only 7% of those observed.

### *Gender Differences*

A series of analyses of variance (ANOVA) was performed to examine whether there were significant gender differences in: 1) the average duration of time spent in each coping style; and 2) the average time spent in each type of AFFEX emotional display. Analyses compared males to females, as well as the different gender compositions of bully-victim dyads. No statistically significant differences were found. Similarly, Z-tests of proportion were conducted to determine whether there were any significant differences in the proportions of: 1) coping styles; and 2) AFFEX displays observed in males versus females. No significant differences were found.

### *Contextual Factors*

Given the categorical nature of the coping styles data, a cluster analysis was performed to test whether the coping styles could be classified into statistically distinct groups based upon the effects they were observed to have on episode escalation and resolution. Results of the cluster analysis indicated that the escalation and resolution patterns observed for each coping style could best be accounted for by two clusters. The first cluster was centered on an escalation rating of 1 (de-escalates) and a resolution rating of 3 (resolves). Cluster 1 was comprised of the coping styles of ignores, acquiescence, avoidance, and instrumental coping. The second cluster was centered on an escalation rating of 2 (no escalation effect) and a resolution rating of 1 (perpetuates). Cluster 2 was comprised of the coping styles physical aggression, verbal aggression, and venting. The coping style of denial loaded equally onto both clusters, and thus, could not be classified. The coping styles of emotional intervention, instrumental intervention, emotional support, and cognitive restructuring were not analyzed due to insufficient sample sizes.

The presence of two distinct clusters of coping styles, each with different escalation and resolution profiles, raised the question as to the magnitude of difference in escalation and resolution effects between these two clusters. As such, two loglinear analyses were performed to investigate more precisely the relative likelihood that each cluster would be associated with specific escalation and resolution effects. In the first loglinear analysis, coping cluster group was the explanatory variable and escalation was the response variable. Because the primary effect of interest was the interaction between coping clusters and escalation effects, the saturated model was the only model that could be fit to the data. Thus, goodness of fit was perfect:  $G^2 = 0, p = 1$ . Results of the analysis indicated that two odds ratios were significant. The odds that Cluster 1 coping styles would de-escalate an episode were 13 times greater than the odds that Cluster 2 coping styles would produce episode de-escalation, within a 95% confidence interval of 7 to 27. Similarly, the odds that

Cluster 1 coping styles would have no escalation effect on an episode were 5 times greater than the odds that Cluster 2 coping styles would have no escalation effect, and this odds ratio value would be expected to fall within a confidence interval of 2 to 10 in 95 cases out of 100. Thus, Cluster 1 coping strategies appear significantly more effective at de-escalating bullying interactions than do Cluster 2 coping styles.

In the second loglinear analysis, coping cluster was the explanatory variable and resolution was the response variable. Again, because the effect of interest was the interaction between coping clusters and resolution effects, the saturated model was the only model that could be fit to the data. Thus, goodness of fit was perfect:  $G^2 = 0, p = 1$ . Results of the analysis indicated that two odds ratios were significant. Cluster 1 coping styles were .28 times less likely to perpetuate episodes than Cluster 2 coping styles were, within a 95% confidence interval of .20 to .39. Similarly, Cluster 1 coping styles were .37 times less likely to have no effect towards resolution than were Cluster 2 coping styles, and this odds ratio value would be expected to fall within a confidence interval of .22 to .61 in 95 cases out of 100. Overall, Cluster 1 coping styles appear more effective than Cluster 2 coping strategies at moving bullying interactions towards resolution.

The results of these loglinear analyses suggest a strong association between coping style clusters and the contextual variables of episode escalation and resolution. To determine whether differences in the coping styles used by victims appeared related to other contextual variables, a series of multivariate analyses of variance (MANOVA's) were performed using the AFFEX data and archival data from the original study that provided further information on the contextual characteristics of each episode. The aim of these analyses was to explore whether there were significant differences in the contextual characteristics of episodes involving victims who coped using the more effective Cluster 1 strategies, versus those involving victims who used the maladaptive Cluster 2 coping styles. Composite scores of the duration spent in Cluster 1 versus Cluster 2 coping strategies were calculated for each victim, and victims were assigned to cluster groups if their composite scores reflected that they spent 55% or greater of their total coping time in one particular coping style (Cluster 1 vs. Cluster 2). The 55% cutoff for cluster assignment was chosen as it both maximally discriminated between the two cluster groups, as well as maximized sample size. Victims who spent reasonably equivalent time (46% to 54% of their total coping duration) in both sets of coping styles were eliminated from the analyses. In total, 82 victims were assigned to Cluster 1, 42 victims were assigned to Cluster 2, and 8 victims were eliminated from the analyses. In general, victims who were assigned to a coping cluster showed a pronounced preference for coping in that particular style: 96% of cluster-assigned victims coped in their assigned style for 65% or greater of the total coping duration.

Finally, to explore whether victims' coping styles appeared related to any other contextual characteristics of the bullying episodes, five MANOVA's were run, using victim cluster assignment as the independent variable:

1. An analysis examining the global characteristics of the episode, using duration, within-class locale of the aggressive episode, and total severity of aggression as the dependent variables;
2. An analysis investigating the power differential inherent in the episode, using bully/victim height differential and weight differential as the dependent variables;

3. An analysis examining the characteristics of the bully's behaviour during episode, using scores for combination, direct, physical, proactive, reactive, social, and verbal aggression as the dependent variables;
4. An analysis of the average duration spent in each AFFEX display by victims; and
5. An analysis exploring the average duration spent in each AFFEX display by bullies.

No significant differences were found in the contextual characteristics of episodes involving Cluster 1 versus Cluster 2 victims for any of the MANOVA analyses described above.

## **Discussion**

The results of the present study indicate that particular patterns of emotional display and regulation typify the interactions that victims have with bullies, and that the choices that they make in emotional expression and behavioural coping styles have a discernible influence on the course and outcome of classroom bullying episodes. The results of the present study also empirically replicate the presence of two distinct sub-groups of victims (passive and aggressive) who can be distinguished by their coping styles in during bullying episodes.

With respect to emotional display, the display patterns observed in bullies and victims in the present study can be interpreted at multiple levels. To begin, emotional displays can be analyzed in terms of the transmission function they serve for affective information during social interaction (Campos et al., 1989). For instance, the emotional displays of interest and joy serve to signal pleasure and encourage interaction; in children they also act to motivate play behaviour (Cicchetti et al., 1995). For victims, such emotional displays may be maladaptive and have serious long-term consequences. By engaging the bully and signaling their approval, victims provide the bully with immediate positive social reinforcement for their own present and future victimization. Given the aversive experience of bullying, it might seem surprising that victims would produce emotional displays that effectively engage bullies. However, numerous studies have demonstrated that victimization is strongly associated with peer rejection (Olson, 1992; Olweus, 1994; Perry et al., 1988). Thus, the high levels of interest and joy displays shown by victims during bullying episodes may reflect that the exchange provides them with desired (albeit dysfunctional) social interaction that they are unable to obtain with peers.

In contrast, because bullies typically: 1) initiate aggressive exchanges; 2) choose victims that they believe will not be able to retaliate; and 3) expect gains from their bullying behaviour (Olweus, 1994; Perry et al., 1990); they effectively have the 'upper hand' during their interactions with victims. The bullying interaction affords the bully an opportunity to establish their social dominance relative to the victim, which is behaviourally reinforcing and pleasurable to the bully (Boulton, 1991). Consequently, it would seem logical that bullies would be observed using a relatively greater proportion of joy displays than would victims.

The high levels of anger and contempt displays observed in bullies and victims may also be interpreted from a functional perspective. The adaptive function of anger is to motivate progress towards goals in the face of obstacles (Cole et al., 1994). Displays of contempt signal disdain for an individual and/or his or her behaviour. Given that bullies enter a bullying interaction with expectations of tangible gain, victim suffer-

ing, and a low threat of retaliation (Perry et al., 1990), the messages of goal attainment and social threat inherent in their displays of anger and contempt may be reflections of their situational motives and expectations. Boulton (1991) has found that emotional displays such as anger and contempt are typically observed in aggressive fighting, and where they serve to signal the intent to establish or maintain social dominance. If bullies are motivated by the expectation that they will prevail, it would seem logical that they would be observed signaling this motivation by using a greater proportion of anger displays than victims. Furthermore, the intimidation reflected in anger and contempt expressions may also lower the likelihood that a victim will retaliate, allowing the bully to dominate while diminishing his/her physical and social risk.

On the other hand, key situational challenges for victims of bullying are to assert themselves against the bully's behaviour, convey that the bully's actions are socially intolerable, and overcome the threat of bullying to defend themselves. Therefore, the high levels of anger and contempt observed in victims might be interpreted as resistance to the bully's attempts to establish dominance, or perhaps as an attempt by victims to shame and instill guilt in the bully by signaling that the bully's behaviour is socially unacceptable. In this context, anger and contempt displays could be seen as adaptive responses to a provocative social situation when they accompany effective, assertive coping behaviours, such as instrumental coping. When coupled with (ineffectual) aggressive behaviours, displays of anger and contempt from victims may further provoke an already hostile bully. Similarly, displays of anger and contempt from the passive victim are likely to reinforce the bully's expectations of dominance and victim suffering.

The anger displays of victims observed in the present study may also be interpreted from another perspective. Recent research by Rubin, Coplan, Fox, and Calkins (1995) emphasizes the role of reactivity in emotionally regulated behaviour. According to Rubin et al., children who are easily emotionally aroused and have difficulties regulating their affect are at higher risk for regulation dysfunction—in effect, their emotional feeling states overwhelm their coping processes. Children who have low thresholds for anger and anxiety arousal appear to be particularly susceptible to these types of regulation difficulties, and tend to behaviourally manifest their emotional regulation problems via acting out or withdrawal. Considering the high levels of aggressive and withdrawn behaviour observed in victims, it seems reasonable to suggest that, in addition to having poor emotional regulation skills, the victims in the present study may also be highly emotionally reactive. Bullying interactions likely arouse feelings of frustration in victims, and should they be particularly sensitive to such stimulation, displays of anger and contempt may be the logical outcome. Such an interpretation would support findings reported in the literature that victims often demonstrate exaggerated feelings of frustration (Perry et al., 1992).

Lastly, while the displays of sadness and surprise were among the top six displays of bullies and victims, they were observed significantly more frequently in victims. The display of sadness signals the relinquishment of desired objects and goals (Cole et al., 1994). Considering that the experience of victimization is associated with loss, the frequent observation of sadness among victims is not surprising; indeed displays of distress are reported to be characteristic of victims (Olweus, 1994). However, because the display of sadness conveys that the victim perceives further pursuit of goals as fruitless, it is likely maladaptive inasmuch as it fulfills the bully's expectations of capitulation and suffering (Perry et al., 1990).

Displays of surprise convey that an individual has not anticipated the events that he or she has just experienced, which may be due to the fact that the events are situationally unusual, and/or because the individual has failed to appropriately process contextual cues. Thus, victims may frequently display surprise because they have failed to interpret the contextual cues of the bullying situation, and the bully's behaviour is unanticipated. Alternatively, the surprise displays of victims might be viewed as further expressive evidence of a low arousal threshold.

Thus, the emotional display data gathered from bullies and victims in the present study suggest numerous hypotheses regarding the regulatory patterns of bullies and victims, as well as the social dynamic that occurs between them during bullying interactions. However, further investigation of these preliminary hypotheses is required to gain a more definitive understanding of the emotional and social factors underlying the bully-victim dynamic. In particular, current analysis of the emotional displays of bullies and victims is constrained by the need to interpret these displays in the context of normative development; i.e., the normal function, meaning, and usage of emotional displays. It is unclear at this stage whether bullies and victims—both of whom have difficulty navigating and functioning in social situations—use and interpret emotional displays in the same ways as children without social skills deficits. For instance, while joy expressions are normatively used to signal pleasure and encouragement, it may be that bullies use this same expression as a means of intimidation and reinforcing dominance (e.g., a signal of aggression), whereas victims might perhaps use the joy expression as a gesture of appeasement, or passivity. Future research into the use and interpretation of emotional displays by bullies and victims should clarify how observational data, such as those gathered in the present study, should be analyzed.

With this caveat in mind, the patterns of coping styles observed in victims in the present study appear to be behavioural amplifications of their emotional displays. Broadly speaking, the observed coping strategies of victims can be classified into two clusters: aggressive and problem-solving strategies. Aggressive, emotional strategies (verbal aggression, physical aggression, and venting) accounted for 43% of all victim coping styles. Given that aggressive strategies actively engage an already hostile bully in an antisocial manner, it is not surprising that they acted to prolong bullying episodes, and were less likely than problem-solving strategies to de-escalate the severity of aggression in the episode. The magnitude of difference in escalation effect between aggressive and problem-solving strategies is pronounced: *aggressive coping styles were 13 times less likely than problem-solving approaches to de-escalate a bullying interaction*. Yet, victims consistently made aggressive coping choices, a replication of other research describing one sub-group of victims as ineffectual, reactive aggressors—or, aggressive victims (Olweus, 1994; Perry, et al., 1992). Aggressive victims have been observed to become highly aroused during bullying interactions, prolonging and escalating the conflict into successively higher levels of aggression only to lose amid exaggerated displays of anger and distress (Perry et al., 1990; Perry et al., 1992).

The results of the present study support this description of the aggressive victim, particularly when the widespread use of aggressive coping styles among victims is analyzed in conjunction with their observed high levels of anger, sadness, and contempt displays. Observations of aggressive/provocative victims in the present study parallel Rubin et al.'s (1995) description of the child with a low arousal threshold for anger and poor emotional regulation skills who is prone to externalizing problems. As

such, the aggressive victim is highly reactive to frustration, which they encounter when bullied. In turn, their emotional reactivity makes them susceptible to arousal transfer—a predisposition towards extreme reactions due to an elevated state of arousal (Campos et al., 1989). Unable to cope with the bullying, the victim's anger mounts, their regulation processes fails, and aggression towards the bully ensues. The problems of such under-control have long-term costs for aggressive victims. Aggressive victims are likely to internalize peers' negative perceptions of them, a factor which enhances their risk for depression, delinquency, and dropping out of school (Olson, 1992; Perry et al., 1988; Slee, 1995).

The second group of coping styles characteristic of victims was the problem-solving group, which accounted for 52% of the observed coping styles, and was associated with the de-escalation and resolution of bullying. However, this cluster of coping styles is comprised of both active (instrumental coping) and passive (avoidance, acquiescence, ignores) coping styles. Whether a victim uses active versus passive problem-solving strategies implies very different things about their emotional regulation capabilities, and about the messages that they are sending to bullies. While the situational outcomes of active and passive problem-solving approaches may be similar, the long-term implications they have for repeated victimization are likely to be highly discrepant.

Of the problem-solving coping styles used by victims in the present study, 84% were passive in nature. Although these coping styles are associated with the de-escalation and resolution of bullying interactions, they are problematic inasmuch as victims who employ these strategies fail to confront their bullies. By failing to confront their bullies, victims' use of passive coping strategies positively reinforces the bully's motivations of capitulation, low retaliation threat, and personal gain. When combined with the observed emotional displays of sadness or anger, the employment of passive coping styles serves to fulfill the bully's situational expectations of suffering and gain; alternately, when these coping styles are combined with displays of joy or interest, they may signal to the bully that his/her behaviour is desirable. In either case, such coping styles appear to place the victim at risk future victimization. However, as Cole et al. note (1994), 'even the most dysregulated emotion serves some adaptive purpose in the present, even as it interferes with optimal adjustment or development' (p. 81). Because passive coping styles end the aversive bullying experience, victims are likely to find these strategies reinforcing, and may choose them in the absence of functional options, creating a vicious cycle that entrenches their victim role.

Victims in the present study who were observed using passive coping styles are suggestive of the withdrawn, anxious sub-group of victims reported in the literature. This sub-group of victims has been labeled passive victims, and they are distinguished by their submissive behaviour, insecurity, and negative self-concept (Olweus, 1994; Perry et al., 1992; Perry et al., 1988). Observations of passive victims in the present study mirror Rubin et al.'s (1995) description of the child with a low arousal to fear/anxiety and poor emotional regulation skills. As such, the passive victim is highly reactive to threatening situations, and encounters such threat in the form of bullying. Unable to cope with the bullying assertively, the victim's fear and anxiety mount, and they either withdraw or capitulate. Research by Schwartz, Dodge, & Coie (1993) indicates that a low incidence of assertive behaviour with peers and a high incidence of submission to peer demands are associated with the development of victim status. The long-term costs to victims of adopting passive coping

strategies should not be underestimated; victims who use them may be at risk for low self-esteem and depression in adolescence and adulthood (Neary & Joseph, 1994; Slee, 1995).

Finally, active problem-solving strategies were rarely observed among victims in the present study; accounting for only 16% of the problem-solving strategies used. Yet, it is the active problem-solving strategies that are likely to be the most effective in the management of bullying interactions. Active problem-solving approaches appear to de-escalate and resolve episodes and also allow the victim to act assertively. Thus, they provide positive reinforcement to the victim for the use of prosocial conflict resolution coping choices, while simultaneously denying the bully reinforcement for their aggressive overtures. Consequently, it would appear less probable that active problem-solving strategies would set precedents for repeated victimization. However, the successful use of active problem-solving strategies requires the victim to have well-developed social skills and a supportive peer group. Since victimization is associated with peer-rejected status and poor social skills, for the majority of victims these coping strategies simply may not be accessible. Yet, assertive behaviour skills not only protect against victimization, but they also foster a personal sense of social mastery, facilitate peer acceptance, and act as protective factors against the negative psychological impact of stress (Eisenberg et al., 1997; Kopp, 1989).

In conclusion, the results of the present study offer evidence regarding the presence of emotional skill deficits in child victims of bullying, both in terms of emotional regulation and display. Victims in this study consistently made maladaptive display and coping style choices, and appeared to lack the emotional and social resources to effect choices that would likely produce more positive short- and long-term outcomes. Such inflexibility and overall lack of breadth in emotion-based behaviour is the hallmark of dysfunction in the emotional regulation process, and is frequently associated with risk for mental health problems (Cole et al., 1994).

Furthermore, the results of this study support earlier reports of two distinct types of chronic child victims: 1) the aggressive victim, and 2) the passive victim. While both groups of victims appear to suffer from broad emotional skill deficits, the developmental trajectories, risks, and outcomes associated with each type of victim are likely to be very different. As such, longitudinal studies of victimization that examine individual and family risk factors, are needed. Such research would be invaluable to prevention, early identification, and early intervention efforts with victims, which, if executed when the emotional regulation processes are still accessible to external influences, maximize the likelihood of positive outcomes.

Attention should also be directed towards the development and testing of emotional management skills training programs that enhance victims' coping repertoires and overall social adjustment. Recently developed emotional restructuring techniques assist individuals in constructing more mature cognitive organizations of their emotional experiences, which fosters their ability to reflect upon and manage their emotions (Cole et al., 1994). Direct skill-training programs that teach children assertive coping behaviours and displays via modeling and role play may also offer prevention and intervention options that are easily incorporated into existing school-based programs. However, longitudinal research is also essential to the identification of effective emotion-based victim interventions to ensure that victims' long-term psychological health is not sacrificed to short-term treatment gains—in effect, perpetuating the cycle of victimization.

## References

- Boulton, M. (1991). A comparison of structural and contextual features of middle school children's playful and aggressive fighting. *Ethology and Sociobiology*, 12(2), 119–145.
- Campos, J., Campos, R., and Barrett, K. (1989). Emergent themes in the study of emotional development and emotion regulation. *Developmental Psychology*, 25(3), 394–402.
- Casey, R. J. & Schlosser, S. (1994). Emotional responses to peer praise in children with and without a diagnosed externalizing disorder. *Merrill-Palmer Quarterly*, 40(1), 60–81.
- Cicchetti, D., Ackerman, B. P., & Izard, C. E. (1995). Emotions and emotion regulation in developmental psychopathology. *Development and Psychopathology*, 7, 1–10.
- Cole, P. M., Michel, M. K., & O'Donnell, L. (1994). The development of emotion regulation and dysregulation: A clinical perspective. In N. A. Fox (Ed.), *The development of emotion regulation: Biological and behavioural considerations. Monographs of the Society for Research in Child Development*. (pp. 73–100). Chicago: University of Chicago Press.
- Craig, W. M. (In press). The relationship among bullying, victimization, depression, anxiety, and aggression in elementary school children. *Personality and Individual Differences*.
- Dodge, K. (1989). Coordinating responses to aversive stimuli: Introduction to a special section on the development of emotion regulation. *Developmental Psychology*, 25(3), 339–342.
- Eisenberg, N., Fabes, R. A., Carlo, G., & Karbon, M. (1992). Emotional responsivity to others: Behavioural correlates and socialization antecedents. In N. Eisenberg and R. A. Fabes (Eds.), *Emotion and its regulation in early development. New Directions for Child Development*, no. 55 (pp. 57–73). San Francisco: Jossey-Bass Publishers.
- Eisenberg, N., Fabes, R. A., Murphy, B., Maszk, P., Smith, M., & Karbon, M. (1995). The role of emotionality and regulation in children's social functioning: A longitudinal study. *Child Development*, 66, 1360–1384.
- Eisenberg, N., Guthrie, I., Fabes, R., Reiser, M., Murphy, B., Holgren, R., Maszk, P., & Losoya, S. (1997). The relations of regulation and emotionality to resiliency and competent social functioning in elementary school children. *Child Development*, 68(2), 295–311.
- Izard, C. E., Dougherty, L. M., & Hembree, E. A. (1989). *A system for identifying affect expressions by holistic judgments (Affex)*. Delaware: University of Delaware Media Services.
- Kopp, C. (1989). Regulation of distress and negative emotions: A developmental view. *Developmental Psychology*, 25(3), 343–354.
- Lazarus, R. & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York: Springer Publishing Company.
- Masten, A., Morison, P., & Pellegrini, D. (1985). A revised class play method of peer assessment. *Developmental Psychology*, 21, 523–533.
- Neary, A. & Joseph, S. (1994). Peer victimization and its relationship to self-concept and depression among school girls. *Personality and Individual Differences*, 16(1), 183–186.
- Olson, S. L. (1992). Development of conduct problems and peer rejection in preschool children: a Social Systems analysis. *Journal of Abnormal Child Psychology*, 20(3), 327–350.
- Olweus, D. (1989). *Student Bully/Victim Questionnaire*. Unpublished manuscript.
- Olweus, D. (1994). Annotation: Bullying at school: Basic facts and effects of a school based intervention program. *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 35(7), 1171–1190.
- Perry, D., Kusel, S., & Perry, L. (1988). Victims of peer aggression. *Child Development*, 24, 807–814.
- Perry, D., Perry, L., & Kennedy, E. (1992). Conflict and the development of antisocial behavior. In Shantz, C. and Hartup, W. (Eds.), *Conflict in child and adolescent development* (pp. 301–329). New York: Cambridge University Press.
- Perry, D. G., Willard, J. C., & Perry, L. C. (1990). Peers' perceptions of the consequences that victimized children provide aggressors. *Child Development*, 61, 1310–1325.
- Rubin, K., Coplan, R., Fox, N., & Calkins, S. (1995). Emotionality, emotion regulation, and preschoolers' social adaptation. *Development and Psychopathology*, 7, 49–62.
- Schwartz, D., Dodge, K., & Coie, J. (1993). The emergence of chronic peer victimization in boys' play groups. *Child Development*, 64(6), 1755–1772.
- Slee, P. (1995). Peer victimization and its relationship to depression among Australian primary school students. *Personality & Individual Differences*, 18(1), 57–62.

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