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Friend over Foe: Friendship Quality and Chronic Peer Victimization

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I am a senior in the College of Arts and Sciences, majoring in psychology and philosophy, and I am a member of the UK Honors Program.

This project, “Friend over Foe: Friendship Quality and Chronic Peer Victimization,” describes my senior honors thesis and is part of the Capstone segment of my undergraduate psychology degree. In August, I will pursue graduate studies in Emory University’s Clinical Psychology Ph.D. program, where I am a recipient of a merit fellowship from the Graduate School of Arts and Sciences. At Emory, I will work with Scott Lilienfeld, conducting research in the areas of impulsivity, disinhibition, and personality disorders, such as psychopathic personality disorder. I will also focus on problems in diagnosis, assessment, and treatment of various psychopathologies.

The project I am reporting here has been formative in my upcoming pursuits in many ways. Broadly speaking, being responsible for a research project and working under the instruction of my project mentors has given me a taste of the kind of work that graduate training entails. Indeed, it has afforded me basic foundations in research design and methodology and given me a grasp of the literature in a way that classroom learning can never match; more specifically, the content domain is highly germane to my future interest. Because the precise causes of adult psychopathology and personality disorders are yet to be determined, gaining insight into childhood disorders and developmental trajectories may be a fruitful route for better understanding the etiology of psychopathology in myriad domains.

Working with Dr. Milich and Dr. Kern has been a singular experience in my undergraduate studies, one that every student should be so fortunate to enjoy. Receiving close attention and direction from accomplished researchers has provided a venue for understanding this sphere of inquiry that is utterly distinct from anything I could acquire in a passive learning environment. Initially, Dr. Kern and Dr. Milich directed me to articles describing relevant theories in the child psychology literature and made sure I understood the models and questions driving this research. They met with me regularly to discuss these ideas and helped me carve out a unique niche for my honors thesis by helping me to understand critical issues for the study. Under their instruction, I have been both encouraged and challenged; I cannot imagine a better milieu for beginning to learn the art of scholarly research and writing. This project has been presented at Posters-at-the-Capitol in Frankfort, KY; it will be revised and submitted to a journal of psychological scholarship.

I grew up in Lexington, KY, and have enjoyed volunteering with at-risk kids, tutoring, and being a member of Psi Chi. I most enjoy being outdoors, whether hiking or playing sports, gardening or reading a good book. My experience with this project has been the acme of my undergraduate career, and it is one that I will continually use as a referent for my future pursuits in academia.

Kristin’s research extends past work in our lab on the moderating effects of friendship quality on peer victimization, by looking at its relation with implicit measures of victimization. The project is quite ambitious; we are recruiting 200 children between the ages of 9 and 13 from the community and bringing them into the laboratory for an extended protocol. They complete a variety of self report measures, take two computer-administered measures of implicit victim status (the IAT and the Emotional Stroop), provide oral narratives of a victimization and a bullying episode in their lives, and, finally, provide a narrative about a time a friend of theirs helped them out, as well as respond to a structured interview about their friendships.

Because there has been very little research done on the social cognitive processes underlying peer victimization, this project has the potential to make a genuine contribution to the literature. Assuming the results turn out as expected, we believe Kristin’s project will be publishable in a high quality peer-reviewed journal.
Abstract
The present research builds on the extensive literature in the field of peer victimization. Specifically, it examines whether friendship acts as a buffer in the relation between implicit socio-cognitive biases and peer victimization among 82 children ages 9-13. Children completed two implicit measures of victimization in order to detect cognitive biases in socio-emotional processing among chronically victimized children. Levels of friendship quality were assessed and shown to have a main effect on peer victimization indices. The emotional Stroop task related negatively to peer victimization, indicating a cognitive avoidance of emotionally-salient stimuli. The IAT and peer victimization were related such that chronic victims displayed greater identification of self as a victim. Implications for various social interventions among these peer groups are discussed.

Introduction
Schoolyard bullies and cliques are nothing new; virtually everyone can remember times during childhood when he or she was the target of peers—it seems that such experiences, though painful or embarrassing, are part and parcel of social development. However, for some children, being the victim of peer harassment is not an occasional bother; rather, it is the source of constant chagrin and fear, and a never-ending battle that colors their whole experience of growing up. Startling events in the news have generated greater concern for the matter, highlighting the fact that relentless victimization may have serious ramifications for some children, and there has been much more air time given to violence and hostility in schools. Terms like “mean girls” and “queen bees” have been integrated into the vernacular to describe girls who, although not physical in their hostility, use cliques, social ostracism, and manipulation to wield pernicious attacks on other girls.

In recent news, five girls in Casey Co., KY have filed a lawsuit against school officials, claiming that their requests for help and protection from peer harassment were ignored. In fact, the problems were not merely left unchecked, but the girls claim that even following extreme physical attacks and ruthless bullying, they were chastised by officials for coming forth with their complaints, to the extent that they themselves were suspended from school on certain occasions. They all have transferred to other school systems or finished high school under homebound instruction. These girls are not unique to Casey County, and epidemiological reports studying peer victimization show that it is a problem that persists across many demographic divisions.

The present research is directed toward identifying the processes behind peer victimization, with the intention of finding viable solutions for actual instances of hostility as well as for the negative effects victims experience as a result.

In a laboratory narrative, a child related the following to describe the dread and isolation he feels every day:

“I hate walking down the hallways between classes. Everyone can see me. I know they are just looking for an excuse to hit me or tease me or something. It’s so unfair, they don’t pick on anyone else. Just me. I don’t look at anyone, because they’d get me if I did. No one ever walks with me. Sometimes I get so scared that my legs start feeling like rubber, or I can’t breathe. I try to just keep my head down and walk. The worst thing is that I can’t fight back, ‘cause I’d just get beat up if I did. One time a kid tried to help me, but I ran away anyway because I thought he wanted to get me too. Once I’m in the classroom then it’s OK because then I can hide at my desk, and I can relax again.”

Evan, age 12.

Background
Evan’s heartrending account expresses the torment and isolation he has come to expect each time he walks down the hallway at school. Incidentally, these social fears are not peculiar to Evan; in fact, as many as 10 percent of children report that they are the frequent and repeated targets of bullying. (Kochenderfer & Ladd, 1996; Olweus, 1978, Perry, Kusel, & Perry, 1988; Nansel et al., 2001) In Norway, 85 percent of all elementary and middle-school aged children completed a survey regarding their encounters with bullying and peer victimization. (Olweus, 1993) Of these, 15 percent of the children admitted to regularly taking part in bullying. Nine percent of students reported being regular targets of peer victimization. Moreover, these data are not unique to Norway; in many other countries, children rate their bullying and victimization experience at a comparable level or higher. (Smith et al., 1999) Evidently, hostility among children and adolescents is a pervasive problem that persists across cultures, gender, and economic strata. (Juvonen & Graham, 2001)

Unfortunately, these phenomena cannot be ignored as isolated instances or passing phases, because victimization and bullying trends remain highly stable over time and both have been linked to negative adjustment indices, including school avoidance, poor academic performance, rejection, suicidal ideation, anxiety, and low self-concept, to
name a few. (Boivin & Hymel, 1997; Boivin, Hymel, & Bukowski, 1995; Egan & Perry, 1998; Olweus, 1978)

For frequently targeted children, peer victimization may portend sadly bleak outcomes. As cause for still greater concern, the negative correlates do not seem to be limited to a discrete event or period in childhood. Rather, children who are perpetual targets of hostility have been shown to exhibit lingering behavioral effects, including academic dysfunction, enduring internalizing (e.g., depression, anxiety, negative affectivity, suicidality), and externalizing disorders (e.g., criminal misconduct, explosivity, disruptiveness, risk taking). (Bollmer et al., 2003, 2005; Olweus, 1978) Evidence likewise suggests that chronic peer victimization is a predictor for deficits in subsequent adult relationships. (Olweus, 1993; McMaster et al., 1998) In short, being victimized as a child can have lifelong consequences.

Peer victimization is thus widely recognized as a critical issue and was recently declared a threat to public health. (American Psychological Association, 2004) A large corpus of literature has emerged to better identify features of children's behavior that place them at risk among peers. It is, indeed, sobering that a childhood phenomenon as detrimental as peer victimization is as ubiquitous as the evidence indicates. Peer victimization, traditionally defined in terms of physical aggression, is no longer limited to the sphere of overt hostility; it is often more subtle, and these subtle forms of victimization can be at least equally as hurtful.

The current study utilized Juvonen and Graham's (2001) definition, in which peer victimization is negative social behavior “that entails face-to-face confrontation (e.g., physical aggression, verbal abuse, nonverbal gesturing) or social manipulation through a third party (e.g., social ostracism, spreading rumors), meaning that some forms of harassment avoid overt and direct conflict, but instead employ relational ostracism and derision.” (Juvonen & Graham, 2001)

Evidence suggests that the incidence of chronic peer victimization is not significantly different across genders (Duncan, 1999); nonetheless, boys and girls tend to victimize and be victimized in different ways. Boys often use physical aggression to vie for dominance, while girls are more prone to relational bullying and ostracism. (Crick & Bigbee, 1998; Schwartz et al., 1993). It remains unclear whether girls perceive their relational means of aggression as equally hostile, nor is it entirely clear in the literature whether relational aggression constitutes a legitimate subtype of conduct disorder. (Moffit et al., 2001; Olweus, 1991; Tiet et al., 2001) However, it may be that, although the precise form of hostility may differ for boys and girls, the underlying motivations and emotional consequences will be the same. (Crick & Grotpeter, 1995)

Evidence further indicates that reactions to peer victimization are linked to individual differences in temperament and personal history. In one study, researchers found that even relatively mild teasing can generate animosity towards the teaser and teasing event. (Bollmer et al., 2003) The same study identified certain personality traits as being related to emotional responses to victimization. Particularly, the Agreeableness dimension of the Big Five personality inventory was important for interpretation and response in teasing interactions; there was a strong positive relation such that as level of Agreeableness increased in the recipient of the taunt, so did the negativity associated with the short interaction. Essentially, people who score higher on the Agreeableness facet of the Big Five personality scale are therefore more negatively affected by a conflictual or tense interaction. Dill et al., (2004) found strong associations between chronic victimization experiences and the display of general negative affect. It is not clear whether peer victimization precedes negativity, or if it is the reverse, that maladaptive behavior precedes victimization; these two factors most likely operate in a reciprocal manner.

It appears that children with a long victimization history will be prone to suffering adverse consequences, regardless of personality, race, gender, or socio-economic status. This chronically bullied group is not behaviorally homogeneous. Two classes of victims emerge from the literature: Olweus (1978) labels these groups as “passive victims” and “provocative victims.” The passive victim is one who seldom provokes the bully directly and tends to be socially withdrawn, submissive, and anxious. It is not uncommon for such passive victims to also be highly agreeable, which may, in turn, heighten their sensitivity to taunts. Early on, children who exhibit these inclinations are recognized as easy targets for their aggressors. (Egan & Perry, 1998; Hodges and Perry, 1999)

For provocative victims, that is, those who tend to initiate aggression and elicit retaliation from their peers, negative responses often manifest themselves externally, in hostile, disruptive, restless, and attention-seeking behaviors. (Olweus, 1978) Schwartz et al. (1998) found positive relations between victimization and aggression, hyperactivity, and impulsiveness. Children displaying this constellation of traits are what Perry, Perry, and Kennedy (1992) termed “infectious aggressors.” Their angry and out-of-control behavior and antisocial conduct further alienate them from the peer group and escalate the likelihood that
they will become future and perpetual targets of peer victimization.

There is much evidence to suggest that children are generally savvy and quick to perceive emotional dysregulation and interpersonal deficiencies; once these perceptions are established, it is very difficult to dispel the stigmas, even when the other children are given disconfirming evidence. (Milich, McAninch, and Harris, 1992) For example, within only five minutes of interacting with a behaviorally dysregulated child (one who displayed characteristic ADHD behaviors), peer participants in the Diener and Milich (1997) study expressed dislike for the dysregulated child. The peer group’s negative perception of a disinhibited or dysregulated child may contribute to the stable pattern of peer victimization for this population. Both classes of victims, passive and provocative, seem to be especially prone to debilitating emotional arousal and poor coping skills when faced with socially threatening situations. (Perry, Hodges, & Egan, 2001) Certainly, poor self-esteem is a defining factor among victim populations, which may also aggravate perception of and responses to social threats. (Asher & Gottman, 1981)

Recent theories attribute the lack of emotional control that is characteristic of chronically victimized children to implicit cognitive biases, which impede calm, impassive, and adaptive responses to social threats. Crick and Dodge (1994) identified the importance of children’s cognitive processes in response to social interactions. In the face of ambiguous or overtly threatening situations, they propose, children who experience high levels of peer victimization employ a top-down processing style that interprets the scenario as extremely hostile and aggressive. Moreover, early distressing social experience has been shown to cultivate negative social cognitions and attributions. Dodge & Coie (1987) theorize that these biases occur when a child defers to an implicit cognitive interpretation that does not correspond to the actual social event. When asked to determine the cause of an ambiguous social interaction, chronically victimized children are more likely to respond with a hostile attribution bias and so perceive their social atmosphere as significantly more threatening than the situation actually warrants. For instance, a child using a cognitive bias may see two students whispering and laughing in the hallway and automatically assume that it is a jibe directed toward her or him. In this and other such ambiguous or neutral scenarios, such an interpretation may exacerbate the child’s preexisting fears and sensitivity to social threat, making it more difficult to successfully navigate the social environment.

Recently, Rosen et al., (2005b) applied the implicit cognition premise to develop a Victim Schema Model. The model proposes that victimization experiences affect children’s social-cognitive and socio-emotional processing, whereby present emotional distress interacts with children’s prior social information processing to put them at risk for further victimization. Under this model, children with an easily accessible victim schema (i.e., a mental representation and organization of the social environment wherein they view themselves primarily as targets of hostility) are identified as being more likely to attend to threatening cues during social interactions, because individuals often attend to and incorporate environmental information that is highly salient and congruent with more easily accessible social schemas. (Baldwin, 1992; Baldwin & Dandeneau, 2005) In other words, a child operating under a victim schema walks onto the playground expecting to be treated harshly by his or her peers. If s/he is hit with a dodge-ball, it is much easier for him or her to perceive this event as done “on purpose” or “because nobody likes me” than it is to see it as just part of the game.

The intense emotional arousal prompted by victimization cognitions is likely to interfere with appropriate responses and, thus, perpetuate highly maladaptive behaviors. The visible distress that results from such intense emotional arousal could, thus, elicit added persecution from the peer group; for many bullies, the sight of a victim reacting with distress, anger, or tears is highly rewarding. As the implicit victimization associations increase in magnitude, so do the child’s ineffective responses, which leads to subsequent peer rejection, and thus confirms his or her own implicit victimization associations. A major goal of the current study is to validate the Rosen et al. (2005b) theory and to glean insight into the association between implicit cognitions and peer victimization.

As mentioned, debilitating emotional arousal and anxiety induced in victims by implicit cognitive processes are proposed to impede calm and effective social interaction and responses. For such children, “just ignoring” or “laughing off” an insult — real or perceived — is particularly difficult, if not impossible. Indeed, for Evan, who described his painful perceptions of the school hallway, virtually every event was colored by his victim schema. It makes sense, then, that when a chronically victimized child feels threatened by an event, the response is so debilitating that it does not correspond to the actual event. In other words, a child might in fact know his or her response is ineffective, even exaggerated, and that it may potentially instigate more jeers, but s/he is
so overwhelmed by automatic, “gut” reactions, that s/he is paralyzed from responding more appropriately. Consider this account from a participant in the Bollmer et al. (2005) study:

“Okay, it was at school my friends and I playing a game of freeze tag. I stink at, I stink at running so when I was ‘It,’ I couldn’t really catch anyone. Well, I was trying to run away from whoever was It or posing to be It. I ran right near one of my good friends and, puff, he was It. Getting me frozen. People kept on tagging me even when I told them not to. Then I, uh, it happened. I started crying, whining, trying to get them to stop freezing me. I even pleaded at some point. I was feeling really angry and sad at that moment because no one would leave me alone. I told Mom and Dad about it but they said just to avoid it. I think it happened because they all know that it is more fun to pick on me.”

(Bollmer et al., 2005)

Even though this child understood that crying and pleading would only encourage the others’ jeers, his emotional arousal precluded a more effective response. One vital fact to note is that although all these implicit events occur internally, they have extensive ramifications for social interactions, both in the moment of a victimization encounter and during future interactions. The cyclical and reflexive character of an implicit victim schema thus creates a robust and largely automatic heuristic — one that is very difficult to change or disengage once it is in place.

Accordingly, the severity of these distressing implications must be addressed. One approach is to explore possible moderating factors to the cycle — that is, factors that could buffer or protect these children from future victim experiences. It has been shown that friendship can act as a moderator of the relationship between externalizing behaviors and bullying. (Bollmer et al., 2005) Likewise, in a recent study investigating social attribution biases in 6th-8th graders, Prinstein et al. (2005) examined risk factors for internalizing disorders and peer relations; among girls in particular, they found that friendship quality, reassurance-seeking, and depressive symptoms were cyclically related.

The current study extends these existing findings by attempting to further elucidate the role of friendship in these peer victimization and implicit cognitive mechanisms. Cassidy & Asher (1992) found copious evidence to suggest that children who exhibit high levels of loneliness and social dissatisfaction do so as a consequence of poor quality friendships. (Asher, Hymel, & Renshaw, 1984) Perhaps the resources and emotional validation associated with good quality friendship could allay some of the negative outcomes related to chronic peer victimization and rejection.

Specifically, close dyadic friendships are regarded as a possible mitigating factor, which can decrease the risk for the onset and maintenance of deviant behavioral inclinations. (Schwartz et al., 1999) Hodges, Malone, and Perry (1997) propose that friends actually buffer vulnerable children from prospective victimizers, as bullies may view the friends as obstacles to their dominance. More interestingly, though, is the hypothesis that close friendships are more important and operate differently than group popularity. (Ladd et al., 1997) It has been suggested that intimate, trusted friendship — a best friendship — serves to satisfy emotional needs during adjustment that are not provided by group acceptance, even if the friend is not present to defend the child in a distressing social encounter. Ladd et al. (1997) argue for a multidimensional representation of the child social dynamic. They suggest that it is likely that both group acceptance and dyadic friendship are valuable for adjustment, but each operates via a distinct mechanism to meet diverse developmental needs.

Indeed, the findings of Schwartz et al. (1999) corroborate this hypothesis. Dyadic friendship was shown to moderate the predictive link between peer victimization and recurrent externalizing behaviors. More encouraging, though, is that children who were at high risk for peer victimization, when given friendship support in kindergarten, were thus buffered from chronic victimization several years later. Schwartz et al. (2000, 2001) speculated that if, indeed, dyadic friendship could offer support to at-risk children during early childhood, efforts to mimic such validation and integration into a social network may serve a relatively long-term protective function. When viewed from a developmental perspective, friendship, particularly with a trusted confidante, offers personal validation and a safe forum for children to air feelings and concerns; likewise, friendship of this sort also gives children a medium for learning appropriate interpersonal behavior. Whether or not friendship quality is a key factor for resilience among children with long histories of peer victimization is yet to be determined. Perhaps intimate companionship meets important emotional needs that enable targeted children to regulate their emotions and act with more social aplomb.

Newcomb and Bagwell (1996) also distinguish friendship from group popularity by arguing that dyadic or quality friendship is marked by egalitarian interactions, with less emphasis on dominance, competition, and status. The social support literature recognizes distinct facets of friendship quality — companionship,
intimacy, trust, help, security — that seem to bear unique developmental consequences. (Bukowski et al., 1994) In the present study, research was directed toward investigating the specific of friendship quality in the relation between implicit victimization cognitions and recurrent peer victimization.

The Study
To understand how this relationship between implicit victimization cognitions and recurrent peer victimization may happen, it is essential that the construct is clearly defined. Intrinsic friendship quality can be evidenced, in part, by a child’s perception of his or her best friend and the kind of support he or she feels is regularly available from that friend; it may be that such support is best observed by rating frequency of supportive behavior. Moreover, to fully understand the quality of friendship, it may be important to include the degree to which chronically victimized children sense their own role, not merely as recipient of but also as provider of support to their friend.

Although mutual peer nomination has historically been favored as a way to measure best friendship (Furman, 1996; Landau & Milich, 1990), it is not clear that mutual nomination indicates better friendship quality. (Bowker, 2004) One benefit of using peer nomination is that it provides objective evidence that friendship actually does exist between two individuals; however, it is insufficient to determine the precise nature of that dynamic relationship. Bowker (2004) argues that requiring reciprocity to ascertain friendship quality might overlook the organic development of genuine, stable relationships in which gradually, persisting through childhood phases, loyal friendship does occur. Bukowski et al. (1994) developed the Friendship Qualities Scale (FQS), a questionnaire involving descriptions of a best friend, to assess friendship quality. Given the complex, unconscious nature of implicit victimization processing, this study used the Friendship Quality Scale, as opposed to peer nomination or ranking, to more richly assess the various dimensions of best friendship.

Demaray and Maleki (2003) also suggest that social support can be exhibited in many ways: emotional or caring support (listening), instrumental support (providing time or resources), informational support (providing needed information), and appraisal support (providing feedback). They also recognize that social support can emerge from a number of sources, such as teachers and mentors, in addition to peers. For the current study, research was thus concentrated specifically on peer friendship quality, given that the question is whether this precise form of support can moderate the link between implicit cognitions and peer victimization.

Measuring and defining peer victimization is also challenging. Rather than categorizing children in a black or white manner as either victims or nonvictims, we analyzed peer victimization as a continuous dimension. The intent is to identify the specific support that best moderates the implicit cognition-peer victimization relation. The present study also adopted a narrative methodology for studying friendship. In prior studies from our lab, victimization and bullying narratives have proved effective techniques for obtaining measures of socially-generated emotional distress. (Bollmer, Harris, & Milich, in press; Rosen et al., 2005b) It is, thus, believed that friendship narratives will inform future research and serve as pilot data for further study of these complex childhood phenomena. Discerning whether chronically victimized children construe friendship differently from their peers may be fertile, because documenting their subjective experiences may identify untapped areas for intervention strategies that better reflect their respective problems.

In sum, this study tested the following predictions: (a) Friendship Quality will moderate the relation between implicit cognitive processing and peer victimization. That is, there will be an interaction between Friendship Quality and measures of implicit cognitive biases such that children who have a high quality of friendship, even if they display implicit biases on the cognitive tasks, will still report an overall lower incidence of peer victimization than will their counterparts who report poor friendship quality. (b) Friendship Quality and both implicit measures of victimization (IAT and the Emotional Stroop Task) will each be associated, independently, to peer victimization. (c) These relations will hold true across genders, age, and ethnicity. The present project also assessed whether children who report higher levels of peer victimization employ a defense or avoidance when presented with threatening cues, or if they suffer cognitive interference from such cues (Emotional Stroop Task, see below).

Method
Participants
Participants were 82 children (43 boys and 39 girls) between the ages of 9 and 13 years (M = 10.82 years), who were recruited through notices sent home from their schools and after school programs, and in the local newspaper. The notices stated that researchers in the Psychology Department at the University of Kentucky were examining children’s peer relationships. Children were accompanied by at least one parent or
### Table 1. Methods

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<tr>
<th>Reference(s)</th>
<th>Description</th>
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<tr>
<td><strong>Parent Measures</strong></td>
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<td>Demographics Sheet</td>
<td>This basic questionnaire provided information regarding participants’ age, ethnicity, grade level, school, information concerning siblings, etc.</td>
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<td>Perception of Peer Support Scale—Parent Version (PPSS)</td>
<td>The PPSS consists of 22 items pertaining to peer victimization to indicate the parents’ perspectives on their child’s social behavior over the past school year.</td>
<td>Kochenderfer and Ladd’s (1997) child version of the PPSS was modified to measure the parents’ perceptions of the frequency their child is the target of negative behavior from her or his peers.</td>
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<td>Questions on Victimization History</td>
<td>Five additional items asked parents to assess the frequency of actual episodes of social conflict their child has expressed or endured within the last school year.</td>
<td>These items are included to increase the reliability and validity of an overall victimization composite.</td>
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<td>Emotion Regulation Checklist (ERC)</td>
<td>This 24-item questionnaire asks parents to rate their child’s typical emotional states and patterns over time; parents rate their child’s characteristic emotional reactions in various situations.</td>
<td>This questionnaire forms two subscales, an Emotional Regulation scale and a Lability/Negativity scale.</td>
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<td>Child Behavior Checklist (CBCL)</td>
<td>This widely-used scale is comprised of 113 parent-rated items, yielding scores on eight subscales. Essentially, the CBCL is a global measure of childhood pathologies.</td>
<td>Various subscales can be combined to yield an Internalizing scale (including Withdrawn, Somatic complaints, and Anxious/Depressed subscales) and an Externalizing scale (composed of the Delinquent Behavior and Aggressive Behavior subscales).</td>
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<td><strong>Children’s Computer Measures</strong></td>
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<td>Emotional Stroop Task</td>
<td>In the present study, the Emotional Stroop is used to measure variation in verbal response time when children are confronted with threatening social words. Participants were asked to say the color of the word appearing on the middle of the screen as quickly and clearly as possible, while ignoring the actual content of the word itself.</td>
<td>Difference scores were produced for each participant using Greenwald’s “D” procedure, in which individual mean scores for each content domain are divided by the individual’s standard deviation across all scores to control for reaction time.</td>
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<td>Implicit Association Test</td>
<td>The IAT assessed the latent degree to which a child associates him or herself with the role of victim. Based on response time and errors, the IAT measures whether the child can respond faster when a word like “victim” is paired with “me” (a victim-congruent association) than when it is paired with “not me” (a victim-incongruent pairing).</td>
<td>Each individual’s degree of implicit association with the victim role is measured by obtaining the difference in reaction times between the victim-congruent and victim-incongruent trials.</td>
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<td><strong>Children’s Questionnaires</strong></td>
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<tr>
<td>Perception of Peer Support Scale (PPSS)</td>
<td>The PPSS is a 22-item self-report measure used to evaluate children’s perceptions of their history with peer victimization.</td>
<td>In prior research, multi-informant composites were superior in reliability and predictive efficacy than single-informant measures. Along with the five additional items, we found high convergent validity, and thus merged the two for an overall victimization composite ($r = .58$, $p &lt; .01$).</td>
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<tr>
<td>The Reactive-Proactive Aggression Questionnaire (RPAQ)</td>
<td>The RPAQ is a 23-item self report survey used to gauge aggression manifest in both reactive and proactive manners.</td>
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<td>Friendship Quality Scale (FQS)</td>
<td>The FQS is a 23-item assessment of a child’s perceived quality of his or her intimate friendships.</td>
<td>Items can be divided into 5 subscales: Companionship, Conflict, Help, Security, and Closeness. A total was created by obtaining the mean of the 23 items (reverse scoring when appropriate).</td>
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<td>Bullying/Victimization Narratives</td>
<td>Children recounted two social experiences: one in which they were the target of victimization and one in which they were party to bullying another child.</td>
<td>The child was handed a reminder sheet containing a list of specific details to include in each of his or her 2-minute narratives.</td>
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guardian to the study and were required to be between 4th and 8th grades in school and able to read on at least a 3rd grade level. They were also screened for colorblindness. Participants were compensated with $20 upon completion of the study.

**Overview of Procedure**

All study procedures were approved by the Institutional Review Board at the University of Kentucky. Upon arrival at the laboratory, and after receiving consent from the parent and assent from the child, an experimenter took the child to a separate room where s/he performed the emotional Stroop task and the Implicit Association Test (see Table 1). While the child participated in the experiment, the parent completed a series of written measures (see Table 1). After these cognitive tasks, the child responded to a series of social vignettes. He or she then completed three self-report questionnaires assessing his or her friendship and victimization experiences. Next, the child related a narrative describing a bullying and victimization event and answered some general questions pertaining to social interaction. He or she then described two helping scenarios that took place with a friend. Lastly, the participant related several qualitative aspects of his or her best friend.

**Results**

**Bivariate Correlations**

All measures were standardized prior to analysis. Correlations were then computed to assess the concordance between the friendship quality and peer victimization, as well as the concordance between each implicit measure and peer victimization. The IAT ($r(82) = .26$, $p = .02$) and Friendship Quality Scale ($r(70) = 0.29$, $p = .03$) each significantly predicted peer victimization (see Table 3). Significant positive associations were indicated between victimization scores and IAT reaction time; in other words, children reporting a higher instance of peer victimization were slower to react on victim-incongruent trials relative to their response on victim-congruent trials (see Table 2). Moreover, the present study replicated the Rosen et al. (2005b) finding wherein a negative correlation existed between the Emotional Stroop reaction times and the victimization composite scores, which was interpreted to reflect cognitive avoidance of threatening cues. Finally, the significant relation between friendship quality and peer victimization suggests that children lower in friendship quality are at higher risk for

### Table 2

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<th>Victim Composite</th>
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<tbody>
<tr>
<td>Implicit Associations Test</td>
<td>.26*</td>
</tr>
<tr>
<td>Emotional Stroop Task</td>
<td>-.19</td>
</tr>
<tr>
<td>Friendship Quality Scale</td>
<td>-.22</td>
</tr>
</tbody>
</table>

Note: $N = 82$

*p < .05

### Table 3

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>B</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>0.18</td>
<td>0.22</td>
<td>0.10</td>
<td>0.42</td>
</tr>
<tr>
<td>Age</td>
<td>-0.08</td>
<td>0.08</td>
<td>-0.12</td>
<td>0.33</td>
</tr>
<tr>
<td>Race</td>
<td>0.08</td>
<td>0.11</td>
<td>0.09</td>
<td>0.47</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stroop</td>
<td>0.00</td>
<td>0.00</td>
<td>-0.28</td>
<td>0.07</td>
</tr>
<tr>
<td>IAT</td>
<td>0.33</td>
<td>0.15</td>
<td>0.25*</td>
<td>0.03*</td>
</tr>
<tr>
<td>Friendship Quality Scale</td>
<td>-0.26</td>
<td>0.11</td>
<td>-0.29*</td>
<td>0.02*</td>
</tr>
</tbody>
</table>

Note: $R^2 = .03$ for Step 1 ($p = .58$); $\Delta R^2 = .17$ ($p = .007$).

*p < .05

Reference(s)

54, 55 General questions about teasing

Participants were administered orally a questionnaire in which they rate themselves in relation to their peers on the frequency they experience or are involved in certain bullying/victimization events. These questions generate a representation of the degree to which the child attributes negative experiences with peers to internal or external causes.

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The friendship narratives were transcribed and viewed by multiple experimenters, blind to the hypotheses, who coded the narratives for descriptions of friendship quality.

Children were afforded the freedom to describe any qualities that came to mind, because this measure was exploratory rather than confirmatory in nature.

Children described two experiences with friends: a time when they helped a friend with a problem their friend was having, and vice-versa.

Overview of Procedure

All study procedures were approved by the Institutional Review Board at the University of Kentucky. Upon arrival at the laboratory, and after receiving consent from the parent and assent from the child, an experimenter took the child to a separate room where s/he performed the emotional Stroop task and the Implicit Association Test (see Table 1). While the child participated in the experiment, the parent completed a series of written measures (see Table 1). After these cognitive tasks, the child responded to a series of social vignettes. He or she then completed three self-report questionnaires assessing his or her friendship and victimization experiences. Next, the child related a narrative describing a bullying and victimization event and answered some general questions pertaining to social interaction. He or she then described two helping scenarios that took place with a friend. Lastly, the participant related several qualitative aspects of his or her best friend.

### Table 1. Methods (continued)

<table>
<thead>
<tr>
<th>Reference(s)</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>General questions about teasing</td>
<td>54, 55</td>
<td>Participants were administered orally a questionnaire in which they rate themselves in relation to their peers on the frequency they experience or are involved in certain bullying/victimization events. These questions generate a representation of the degree to which the child attributes negative experiences with peers to internal or external causes.</td>
</tr>
<tr>
<td>Friendship/ helping narratives</td>
<td>10, 11</td>
<td>Children described two experiences with friends: a time when they helped a friend with a problem their friend was having, and vice-versa. The friendship narratives were transcribed and viewed by multiple experimenters, blind to the hypotheses, who coded the narratives for descriptions of friendship quality.</td>
</tr>
<tr>
<td>Questions about friends</td>
<td></td>
<td>In this final measure, experimenters asked participants to describe their best friend and prompted to think of ways they feel supported by him or her. Children were afforded the freedom to describe any qualities that came to mind, because this measure was exploratory rather than confirmatory in nature.</td>
</tr>
</tbody>
</table>
peer victimization than those children demonstrating superior friendship quality.

**Multivariate Analysis**

The researchers hypothesized that friendship quality would moderate the relation between implicit cognitive processing biases and peer victimization. Although the bivariate correlates indicated intriguing relations among friendship quality, the IAT, the Emotional Stroop, and peer victimization, a multivariate regression analysis yielded no moderating effects of friendship quality on this relation. A hierarchical regression model was used in which quality of friendship was regressed on the measures of implicit victimization cognitions. No significant moderating effects of friendship quality on the association of victim schema accessibility and peer victimization emerged, all ps > .05, even when controlling for demographic characteristics (see Table 3). Thus, this hypothesis was not supported.

**Discussion**

The present study demonstrated three important associations with peer victimization. Given our hypotheses, we expected several trends to emerge. As predicted, there was a negative relation between friendship quality and peer victimization. In other words, children who have a lower quality best friend are more likely to report being victimized. Further, the hypothesis that there would be a positive association between IAT response time and peer victimization, was supported by our results, indicating cognitive interference in victim-incongruent pairings.

As expected, there was also a correlation between the Stroop and peer victimization, and this negative correlation replicates the Rosen et al. (2005b) finding that response time was faster for chronic victims on socially-threatening trial types. Both of the results on the IAT and Stroop suggest the existence of a highly accessible victim schema as proposed by the Victim Schema Model. Further, it seems that there are two distinct mechanisms occurring at the implicit level. On the one hand, in being forced to make dissonant associations on the IAT, chronically victimized children suffered interference and were significantly slower to make the association. On the other, when presented with potentially threatening word content, the children high in victimization sped up their response. This result is interpreted to indicate that a cognitive defense mechanism is in effect, by which chronic victims avoid the aversive stimulus altogether by not attending to the word content.

On the theoretical level, this work suggests that chronically victimized children who are also faster when presented with threatening word content are bypassing the content of the words altogether. However, for the defense to be activated in the first place, they must have immediate recognition of the perceived aversive cue. If on the implicit level, children with preexisting schemas are hypervigilant to potential threats, then they should be primed to notice noxious terms and quickly employ the cognitive defense. Indeed, the faster response times suggest this explanation to be the case, and it may be that they employ this defense in order to avoid any cue that could trigger emotional distress. It may be that they both want to avoid the direct discomfort generated by the threatening cue, but that their hypervigilance also works as a self-regulation device, to preclude the emotional distress and victimization cycle before it is activated. Unlike a real life teasing scenario, the lab task affords them the choice to attend or avoid and, in so doing, preemptively curtail an emotional meltdown.

The results also show that friendship quality is related to peer victimization: children high in friendship quality demonstrated lower degrees of peer victimization, as expected. Contrary to our predictions, however, there were no significant moderating effects of friendship quality on the association between either score of implicit victimization (IAT or Stroop) and peer victimization. The reason for the lack of moderating significance is not entirely clear. It may indeed be that friendship quality, as indicated, does not significantly buffer victimized children from the detrimental victim schema cycle.

Perhaps, in this case, friendship quality is too distal a factor to interrupt this escalating and emotional cycle. As Hodges et al. (1997) demonstrated, though, close friends can in fact buffer children from victimization when physically present, so it is likely that certain other aspects of friendship, even when the friend is not physically present, may provide important tools that equip the victimized child with skills to forestall the recurrence and magnitude of peer victimization. The emotional dysregulation that is associated with negative cognitive attributions may moderate the relation between an implicit victimization schema and friendship quality earlier on in the development of a victimization cycle. Schwartz et al. (2001) established emotional dysregulation as an integral factor along the pathway toward peer victimization. Perhaps good friendship can mitigate the maladaptive responses spurred on by emotional under-control.

The present study thus yields some important implications for intervention strategies. Perhaps helping
to create just one close, caring friendship could provide vulnerable children with enough emotional and peer support to protect them from the most devastating long-term aspects of peer victimization — it may at least diffuse the acute blow chronic harassment has on their internal attributions. A confidante or trusted ally can provide a safe environment in which to reinforce positive social behaviors for any child; this benefit may serve a vital role, especially in terms of emotional and social adjustment indices for socially ostracized kids. Such empirical support for the buffering nature of high quality friendship is encouraging.

As mentioned, the emotional Stroop task is structured such that it can discern two mechanisms in cognitive processing: on the one hand, it may record delays from construct interference, as represented by larger response time (RT) latencies. (Williams et al., 1996) On the other hand, it may register construct avoidance, as implied by smaller RT latencies for highly emotionally-salient stimuli. (Newman & McKinney, 2002; Rosen et al., 2005b) The present findings replicate heretofore anomalous results: among children scoring higher in victimization, a cognitive avoidance seems to occur. Children who experience higher levels of peer victimization, rather than suffering interference, actually responded more quickly to victim-related words, suggesting that there occurs a cognitive defensiveness in the face of exposure to threatening terms. (Rosen et al., 2005b)

The fact that children experiencing higher levels of victimization also displayed longer RTs on victim-incongruent trials in the IAT suggests that a different mechanism may be involved in the IAT than in the Stroop. If, during both tasks, children scoring high in peer victimization employed a cognitive defense and demonstrated faster response times on both, it would imply that a third factor may be influencing the results; for instance, perhaps impulsive kids are responding preemptively, but their impulsiveness also places them at risk for being targeted by peers. However, it appears as though in the IAT victim-congruent associations are more in keeping with their implicit belief systems, whereas victim-incongruent trials prompt a delayed response. The dissonant association is confusing, and thus they stumble on the association. However, when actually presented with threatening terms, as on the Emotional Stroop, the implicit processing system employs a defense in order to preclude a debilitating emotional response to the potentially threatening stimulus.

Our goal was to understand better the relation among friendship quality, implicit victimization cognitions, and peer victimization; in this way, the present project yielded important insights into these complex dynamics. Given the evidence provided by the current study, it may prove fruitful to develop more focused interventions targeting children’s implicit cognitive biases as well as their deficits in friendship quality. Rather than merely telling children to “ignore” hostility, or even equipping them with more adaptive behavioral responses, the present research suggests a more holistic program. Teaching useful social skills is a noble cause, but remains impotent if the children who need them most are too overwhelmed by emotional distress to access these tools. Perhaps a more effective strategy would be preventative, in that teaching children to realign misguided attributions as well as to develop intimate friendships may defer the development of an implicit victimization schema.

Because it is unlikely that such alliances will come easily for socially awkward or targeted children, it may be that more proactive efforts are required. Personality has been shown to be a great predictor for interpersonal efficacy, so “scaffolding” children with one or two socially adept peers (ideally ones who tend to be more empathic and agreeable) could have a twofold advantage: first, the chronically victimized child would have someone with whom to interact and from whom to draw support; and, second, the peer group at large may come to view this child less negatively. (Coté & Moskowitz, 1998) If a popular child befriends a shunned peer, it may be enough social proof to generate positive feelings for the befriended child; indeed, it may allow both victim and peer to form a constructive friendship and override deeply entrenched attitudes toward their social roles.

Of course, no answer is a magic bullet, and much is yet to be understood regarding the complex dynamic of children’s peer interactions. One limitation of the present study is that it is cross-sectional in nature, and thus any causal relations can, at best, only receive speculation. Insofar as this project is part of a larger longitudinal project, we are optimistic that much more can be learned regarding the precise nature of socio-cognitive processing and friendship quality in peer victimization. Due to time constraints on the present study a more detailed analysis of the qualitative data was not feasible. No doubt, further analyses of the children’s perceptions of their peer relations may generate more fascinating and promising avenues for research in the area.

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References


