Bullies and Victims in the Peer Ecology: Four Questions for Psychologists and School Professionals

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Abstract. The purpose of this article is to synthesize recent work on aggression and victimization in educational settings from an ecological perspective. Four questions directed towards school psychologists and bullying researchers guide this review: (a) How do bullies fit into their peer ecologies? (b) How do victims fit into their peer ecologies? (c) How can teachers impact bullying and victimization? (d) How can parents impact bullying and victimization? Our goal is to encourage school service professionals, prevention and intervention researchers, developers of antibullying curricula, and child development researchers to consider the implications of these questions as part of their effort to confront victimization and understand its contextual roots.

Everyone operates in social situations where others can influence what we do, think, and say. Social influences are powerful, but they are easy for all but the most sensitive observers to misperceive. As this applies to bullying research, our challenge is to better understand the role of children’s peers and relevant adults (such as teachers and parents) along with the individual characteristics of victimizing and victimized children. In this review, we organize a growing body of research focused on the peer ecology of bullying and victimization. Suggestions are offered for how school psychologists and developers of antibullying curricula might use current research as they work against children’s aggression towards one another. Greater use of sociometric and social network technologies that make children’s social relations visible to adults is particularly encouraged. Intervention strategies that incorporate how particular bullies and victims are networked among their peers would be a significant advance over approaches that assume a common profile to bullies and victims, or uniformity in how other children view them.

What is meant by a peer ecology? Ecological psychology has a long history dating back to Gestalt psychology, known for befuddling illusions such as when objects in a picture’s foreground and background appear to shift rapidly. The point of this illusion was that the obvious (foreground) and not-so-obvious (background) inseparably determine our perceptions and judgments. Applied to the present context, bullies and victims are in the foreground, embedded against a background of other children, teachers, parents, and their

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ties to them. The notion of children’s ecologies is strongly associated with Bronfenbrenner (1979), who constructed an elaborate architecture for social environments by describing them as multileveled and characterized by micro- to macrosocial “nested structures, each inside the next, like a set of Russian dolls” (p. 3). Bronfenbrenner (1996) made it clear that Microsystems—the immediate, proximal settings in which behavior unfolds—were often the contexts of paramount importance: “the ultimate mechanism through which development occurs” (p. xv). The peer ecology is that part of children’s microsystem that involves children interacting with, influencing, and socializing one another. Peer ecologies do not include adults, but can affect and be affected by them.

Social structures in peer ecologies organize children’s behavior horizontally and vertically (Rodkin & Fischer, in press). Horizontally, even simple grade school classrooms are contoured environments featuring multiple social relationships (e.g., friendships, peer groups) and hence provide multiple avenues for children to find a niche and enjoy social support. Relationships of mutual dislike, or childhood enemies, are also part of the horizontal structure of peer ecologies (Hodges & Card, in press). Peer groups deserve special mention as a unit of social structure. Groups typically include between three and seven children, are segregated by gender and ethnicity, and are often the most immediate context of children’s perceptions and behaviors (Allen, 1981; Bukowski & Sippola, 2001; Cairns, Xie, & Leung, 1998). Our emphasis on the group is in line with Kurt Lewin’s (1943) dictum that “all education is group work” (p. 115).

The vertical structure of peer ecologies corresponds to a dimension of social power (cf. Lippitt, Polansky, Redl, & Rosen, 1952) and is usually accepted by children as a source of legitimate peer authority even when it is personally disliked. Children and their peer groups vary in social status and influence. One consequence of social status differences is that some children have more power than others in determining what peers value and devalue, support and stigmatize. In the present context, the relevant question for psychologists is whether the social dynamics of a bully-victim relationship occur in the context of rejection by or support from children with high status.

The first two questions that structure our review focus on how bullies and victims fit into their peer ecologies. The last two questions focus on the impact of two relevant adult roles, teacher and parent, lying outside of the peer ecology. Beyond the scope of our review, Swearer and Doll (2001) provide excellent coverage of distal ecological systems implicated in bullying. We supplement research on bullies and victims with research on the peer relations of aggressive and withdrawn children where bully/victim classifications have not been explicitly made.

**Question 1: How Do Bullies Fit Into Their Peer Ecologies?**

Classic social development research (e.g., Asher & Coie, 1990) portrays a hostile peer ecology for many aggressive children, who reactively lash out as they sense provocation from others. This characterization is apt for low status bullies, particularly those who are also victims of harassment (Boivin, Hymel, & Hodges, 2001; Perry, Hodges, & Egan, 2001). Some bullies are friendless and lonely; others gain acceptance but only in small, peripheral social networks consisting mainly of other unpopular, aggressive children (Coie & Dodge, 1998; McDougall, Hymel, Vaillancourt, & Mercer, 2001; Rubin, Bukowski, & Parker, 1998). Preventative interventions emphasizing the acquisition of social skills and alleviation of social-cognitive deficits derive from a tradition of highlighting associations between aggression and rejection.

Many bullies, however, are not rejected. Bullies with moderate to high levels of social status are integrated into their peer ecologies and experience a different, more complicated environment than bullies rejected by peers. We now describe some aspects of these ecologies and draw implications for psychologists and other educational and mental health professionals.

**Horizontal structure.** Our focus is on the peer groups of aggressive children. Groups
provide children with multiple routes for integrating into their peer ecology. Some groups echo dominant societal values, but others give social shelter to children who resist adult-endorsed messages (Ferguson, 2000; Fordham & Ogbu, 1986; McFarland, 2001). The function of peer groups as vehicles of defiance and non-conformity is perhaps mostly clearly seen in adolescence but has roots in middle childhood.

Children with similar levels of aggressive and antisocial behavior are likely to affiliate with one another (Espelage, Holt, & Henkel, 2003; Haselager, Hartup, Van Lieshout, & Riksen-Walraven, 1998; McPherson, Smith-Lovin, & Cook, 2001). However, it is not safe to conclude that aggressive children affiliate only with other aggressive children in easily visible groups of troublemakers. Groups are heterogeneous in nature, and many aggressors are in groups with both aggressive and nonaggressive members. Farmer et al. (2002) questioned the comprehensiveness of the deviant peer group hypothesis, which suggests that aggressive youth are members of small, peripheral groups on the outskirts of the peer ecology. In a study of fourth to sixth graders, they found that aggressive boys were well-connected to others. Two-thirds of aggressive boys and one-half of aggressive girls affiliated in groups whose members were over 50% nonaggressive. Farmer et al. (2002) recommended that violence prevention programs extend beyond aggressive youth and deviant groups to address nonaggressive peers who may support antisocial behavior. Aggressive girls were more likely than aggressive boys to fit the deviant peer group framework, possibly because aggression is less normative among girls and hence is more likely to be segregated away from the mainstream peer ecology.

Using Farmer et al.'s (2002) sample, Rodkin, Pearl, and van Acker (2003) examined children who nominated aggressors as among the three “coolest” kids in their school. According to a similarity view, children nominating aggressors as cool will be aggressive themselves. However, if bullying and aggression work via group processes, children in aggressive groups should perceive aggressive children as cool, even if nominators are themselves nonaggressive. Results confirmed this hypothesis. Analogously, aggressive children in predominantly nonaggressive groups tended to nominate nonaggressive children as cool. These results held for boy and girl same-sex cool nominations. Interestingly, aggressive boys were disproportionately nominated as cool by girls (see also Bukowski, Sippola, & Newcomb, 2000). Taken together, the cool analyses suggest that some aggressive boys have a wide base of reputational support that draws from but extends beyond children like themselves. Consistent with Farmer et al. (2002), aggressive girls had a narrower base of support consisting mostly of girls like themselves.

Among older children, adolescent friends engage one another in “deviancy training” where norms favoring aggression are established and nourished over time, contributing to the development of substance use (e.g., tobacco, alcohol, marijuana) in young adulthood (Dishion & Owen, 2002). Recent sociological investigations emphasize the group contexts in which delinquency processes occur. Haynie (2001) found that the nature of the groups in which friendships are embedded (e.g., their cohesiveness, adolescents’ status within the group) conditioned friendship-delinquency associations. Peer influence on delinquency was most pronounced when groups were cohesive (see also Kiesner, Cadinu, Poulin, & Bucci, 2002), and when target adolescents had high social status. McFarland (2001) stressed the role of social networks in everyday forms of student defiance of authority, downplaying the importance of individual traits, or distal macrosocial features such as race or class. According to McFarland (2001), many students with advantaged positions in the peer ecology undermine classroom affairs whenever possible. Children on the periphery of the peer ecology may also attempt to disrupt class activity, but they usually fail and are rejected by teachers and peers alike.

Research focused specifically on bullies points clearly to the importance of group contexts. Peer groups where norms favor bullying influence individual levels of bullying for boys and girls over the middle school years (Espelage et al., 2003). Bullies tend to be
friends with other bullies (Pellegrini, Bartini, & Brooks, 1999). Bullies engage their peer ecology (using both aggressive and prosocial behaviors) at higher rates than nonaggressive children, and interact with aggressive and nonaggressive children alike (Pepler, Craig, & Roberts, 1998). During middle childhood, the relationship between bullies and victims involves much of the elementary classroom (O’Connell, Peplar, & Craig, 1999; Pierce & Cohen, 1995). Some children who are not themselves aggressive validate bullies with applause, or play supporting roles in bully-led peer groups (O’Connell et al., 1999; Salmivalli, Hutunen, & Lagerspetz, 1997). Bullies who use proactive or instrumental aggression are often popular within their groups (Pellegrini et al., 1999) and their groups tend to be larger than those of nonbullies (Boulton, 1999). Salmivalli et al. (1997) reported that bullying was a group activity in which group members had different, distinct roles (e.g., leading the attack, assisting, reinforcing) and where bullies relied on their network of supporters, subordinates, and scapegoats to establish and exercise influence. Hawkins, Peplar, and Craig (2001) suggest that just as peers can enable bullies, they can also be successful at intervening in a bullying episode. These studies show that bullies preferentially affiliate with one another but are not segregated from their nonaggressive peers.

**Vertical structure.** Child psychologists have been warned for years not to assume that all popular children are prosocial, or that all rejected children are aggressive (Rubin et al., 1998). There are more than a few exceptions to the general trend between aggression and rejection. Bierman and Wargo (1995) studied the characteristics of nonrejected-aggressive children, but mainly as a comparison group to better focus on the unique characteristics of rejected-aggressive children. French (1988, 1990) found that only one-half of rejected boys were aggressive and could not uncover a stable configuration of rejected-aggressive girls. Coie and Koeppel (1990) reported that only one-third of aggressive children were rejected. Other research directed towards creating taxonomies of rejected or unpopular children (Boivin & Bégin, 1989; Cillessen, van IJzendoorn, van Lieshout, & Hartup, 1992) found that although some rejected children were aggressive, others were more withdrawn, and still others showed a combination of externalizing and internalizing characteristics.

How did the linkage between low status and aggression become so strong in the first place? Why were aggressors who engaged their peer ecology overlooked? As Olweus (2001) notes, methodology is at the heart of the problem. The connection between rejection and aggression depends on a definition of status that includes *likeability* (plus the absence of dislikeability) and excludes other constructs, such as influence, dominance, and control over others, with which status and power are typically associated (e.g., Hawker & Boulton, 2001; Hawley, 1999; Pellegrini, 2002; Rodkin et al., 2003). The most commonly used procedure for measuring childhood social status equates status with likeability by asking some variant of two questions of children: (a) Who are the three kids in your class who you *like the most*? (LM), and (b) Who are the three kids in your class who you *like the least*? (LL). These questions are combined to form two new variables: (a) *social preference*, or LM minus LL ratings and (b) *social impact*, or LM plus LL ratings. *Popular status* is assigned to children with high social preference and impact. *Rejected status* is assigned to children with low social preference and at least average social impact (Coe, Dodge, & Coppotelli, 1982). Thus, popular children are liked most by many and liked least by few, and rejected children are liked most by few and liked least by many. Under this system, aggressive children rarely attain popular (i.e., high) status, sometimes entering an understudied *controversial status* classification generally described as a hybrid of popularity and rejection.

Sociometric methods are powerful technologies. They are superb at identifying their intended target of low-status children. They are critical for assessing children’s enemies, a relationship that often develops into victimization (see Question 2). We note in our conclusions that greater adoption of sociometric techniques among researchers and schools would
go a long way towards making visible the social currents of peer ecologies. One challenge for the newest generation of sociometric methods is to improve assessments of children with high levels of social status so that aggressive and nonaggressive children are accurately identified. The presence of popular-aggressive children, particularly boys, has recently been uncovered in a number of studies using both qualitative and quantitative methods, and over a variety of ages ranging from middle childhood (if not before) to adolescence.

A common theme of many school ethnographies is that popular elementary (Adler & Adler, 1998; Ferguson, 2000) and middle school (Eder, Evans, & Parker, 1995; Merten, 1997) children, whether male or female, are rebellious, ruthless, and Machiavellian in establishing and maintaining their high social positions. Conversely, boys who are “nice,” who strive for academic success, or who are overly sensitive to the needs of others are often tagged as effeminate and as a result risk losing or not achieving popular status. Adler and Adler (1998) portray middle childhood peer groups as highly stratified by social status. Children are acutely aware of their own and others’ placement on the status hierarchy, often deferring to higher status classmates and ridiculing lower status ones. Children in popular and/or dominant groups form an exclusive social circle and have disproportionate influence over the classroom as a whole, and may also be disproportionately subject to group influence (Haynie, 2001). Conversely, children in low status groups suffer degradation, exclusion, rejection, and ostracism. A very similar portrait of the haves and have-nots and the relationships between them has been drawn by Eder et al. (1995) in their analysis of middle school peer culture.

Turning to quantitative work, Luthar and McMahon (1996) determined that 24% of inner-city ninth graders could be characterized as having a mix of popular and prosocial characteristics, but another 20% had a mix of popular and aggressive characteristics. Parkhurst and Hopmeyer (1998) found that most eighth and ninth graders who were prosocial and well liked were not perceived to be popular by peers, and most students who were seen as popular were not prosocial or well liked. LaFontana and Cillessen (1998) used hypothetical picture-stories to assess how fourth and fifth graders explained the actions of main characters described as either popular, unpopular, or neither popular nor unpopular (i.e., neutral-popular). These characters acted in ways that had either negative or positive outcomes. Participating children were asked whether story characters meant to cause these bad or good outcomes (i.e., had hostile or prosocial intent). As compared to their judgments of neutral-popular characters, children gave popular characters more hostile intent for negative actions, but not more prosocial intent for positive actions. Rodkin, Farmer, Pearl, and Van Acker (2000) examined subtypes of popular fourth to sixth grade boys in a diverse sample of urban and rural children. Popular-prosocial (“model”) boys were perceived as cool, athletic, leaders, cooperative, studious, not shy, and nonaggressive. Popular-antisocial (“tough”) boys were perceived as cool, athletic, and antisocial. Rodkin et al.’s (2000) findings suggested that highly aggressive boys (if they are also attractive and/or athletic) can be among the most popular and socially connected children in elementary classrooms. Rodkin et al.’s (2000) basic finding has been replicated in a variety of samples. There is evidence for tough, popular-aggressive boys in third grade, suburban communities (Estell, Farmer, Van Acker, Pearl, & Rodkin, in press) and for older adolescent children the connection between popularity and aggression seems to become even stronger (e.g., Gorman, Kim, & Schimmelbusch, 2002; LaFontana & Cillessen, 2002; Prinstein & Cillessen, 2003).

Implications for psychologists. Bullies who are also victims, who predominantly aggress in reaction to provocation, face rejection. Their segregation from most of their peers makes them easy to detect. Bullies may also be active participants in the construction of peer ecologies, enjoying social connections and status. It is important to identify type of bully when dealing with a concrete victimization problem, keeping in mind that groups can be a primary vehicle through which aggression is propa-
gated and valued. Not all groups containing aggressive children are deviant. Educators who exclusively target peripheral antisocial cliques as the engine of school violence problems may leave intact other groups that are responsible for mainstream peer support for bullying. Some bullies use peers as allies, and this is often difficult to isolate or label as an adjustment difficulty. Also, children with high levels of social status have more input into the emerging norms of the peer ecology than children with low status. When children with high status engage in or endorse bullying, they send a message to all children that conflicts, sometimes drastically, with the values that adults espouse.

Farmer's (2000) implications for intervention are particularly instructive. Farmer (2000) deals with aggression among students with disabilities, but the message generalizes: The variety of ways that children who aggress integrate into their peer ecologies has been overlooked. Psychologists and educators can usefully ask the kinds of questions that Farmer (2000) examines in depth, such as: Is the bully a member of a group? Has the bully’s group formed a coalition with other groups? Is the bully a group leader, a “wannabe”? Researchers face an exciting if difficult challenge of measurement and assessment. Peer group restructing may be a promising model for intervention, but children’s natural groups must first be reliably identified and measures of social status improved. We suspect that untrained observations from teachers and other adults about students with high social status underestimate the proportion of popular-aggressive boys and girls and distort other relevant aspects of peer ecologies in which bullying occurs.

**Question 2: How Do Victims Fit Into Their Peer Ecologies?**

Many children at one time or another experience some form of victimization from their peers at school (Nansel et al., 2001). This common experience may explain, to some degree, why adults, including school personnel, often diminish the effect such experiences may have on social and personality development. However, for the sizable minority (about 10% of the school population) who are verbally and/or physically assaulted at school consistently over time (Kochenderfer, 1995; Olweus, 1993; Perry, Kusel, & Perry, 1988), the negative adjustment consequences cannot be overlooked. Indeed, longitudinal research indicates that chronically victimized children, relative to nonvictimized children, are more likely to increasingly evidence behaviors of an internalizing (e.g., anxiety, depression, withdrawal) and externalizing nature (e.g., aggression, hyperactivity), dishonesty); to show drops in self-esteem; to become less well-liked and more disliked by their peers; and to feel a greater dislike of school that likely leads to increases in skipping or absenteeism (Boivin, Hymel, & Bukowski, 1995; Egan & Perry, 1998; Hodges, Boivin, Vitaro, & Bukowski, 1999; Hodges & Perry, 1999; Juvenon, Nishina, & Graham, 2000; Kochenderfer & Ladd, 1996; Schwartz, Dodge, & Coie, 1993; Vernberg, 1990). Perhaps most disturbing is that chronic harassment by peers has been consistently linked to suicidal ideation in several concurrent studies (Rigby, 2000; Slee, 1994; cf. Carney, 2000).

**Personal risk for victimization.** Efforts to understand why certain children are more likely than others to become the target of abuse by their peers have focused on individual level characteristics and behaviors exhibited in the peer group that likely serve to reinforce and/or irritate bullies. Bullies appear to gravitate towards (or select as targets) children that are physically weak, exhibit internalizing behaviors, lack prosocial skills, and have low self-worth and perceptions of social competence. Indeed, longitudinal evidence indicates that each of these contribute to increases in victimization over time (Egan & Perry, 1998; Hodges, Boivin et al., 1999; Hodges & Perry, 1999; Pellegrini, 1995; Vernberg, 1990). Longitudinal studies have provided mixed evidence that externalizing behaviors serve as antecedents of victimization (see Boulton, 1999; Egan & Perry, 1998; Hanish & Guerra, 2000; Hodges, Boivin, et al., 1999; Hodges & Perry, 1999; Pellegrini, 1995; Schwartz, McFadyen-Ketchum, Dodge, Pettit, & Bates, 1999). However, it appears that hyperactivity and emotional dysregulation are especially
likely to annoy peers and provoke potential aggressors, thus leading to increases in victimization (Pope & Bierman, 1999; Shields & Cicchetti, 2001). It should be noted that heterogeneity exists in the behaviors manifested by victims. One group of victims (passive victims) display primarily internalizing behaviors whereas aggressive victims tend to be comorbid with respect to internalizing and externalizing behaviors (for a review, see Schwartz, Proctor, & Chen, 2001).

Interpersonal risk for victimization. Overall, the picture of victimized children’s peer relationships is quite bleak at the dyadic (friends and enemies) and group level (peer rejection and acceptance). We review each in turn and then highlight recent work indicating that positive peer relationships can inhibit the actualization of personal risk into victimization experiences.

Children who fail to establish a reciprocated best friend (i.e., the peer they nominate as a best friend reciprocates the nomination) are more victimized than those who have a reciprocated best friend (Boulton, Trueman, Chau, Whitehand, & Amatya, 1999; Hodges, Boivin et al., 1999; cf. Kochenderfer & Ladd, 1997; Ladd & Burgess, 1999). Research has also demonstrated that the number of friends students have is negatively associated with victimization (Boivin & Hymel, 1997; Hodges, Malone, & Perry, 1997; Hodges & Perry, 1999; Pellegrini et al., 1999; Salmivalli et al., 1997; Slee & Rigby, 1993; Smith, Shu, & Madsen, 2001). Friendships likely reduce victimization because they pose additional risk to aggressors by increasing the likelihood of retaliation (Hodges, Boivin et al., 1999).

Not all friends are alike, however, and the characteristics and qualities of friends need to be taken into account when gauging the likelihood of a child becoming victimized. The ability of friends to provide a protective function is especially important in warding off attacks from bullies (Hodges, Boivin et al., 1999). Unfortunately, when victims do have friends, they often lack the characteristics needed to successfully play a protective function. Specifically, friended victims tend to have friends who are themselves victimized (Haselager et al., 1998; Hodges et al., 1997; Pellegrini et al., 1999; Salmivalli et al., 1997), as well as who are physically weak and exhibit internalizing problems (Hodges et al., 1997). Victimization is also related to low supportiveness and companionship within friendships (Hodges, Boivin et al., 1999; Rigby, 2000; Vernberg, 1990), as well as low protection (Hodges & Perry, 1999; Smith et al., 2001; cf. Hodges, Boivin et al., 1999).

More recently, victimization has been linked to the quantity, context, and characteristics of enemy relationships (i.e., relationships based on mutual dislike). First, victimized children have more enemies than nonvictimized children (Card & Hodges, 2003; Parker & Gamm, in press; Schwartz, Gorman, Toblin, & Abou-ezzeddine, in press; cf., Abecassis, Hartup, Haselager, Scholte, & van Lieshout, 2002). However, it is unclear whether having many enemies causes victimization, as longitudinal data addressing issues of temporal primacy are lacking. It also appears that it is within the context of enemy relationships that aggressor and victim roles develop. Indeed, victimization occurs most frequently within enemy relationships as compared to neutral peers, friends, or dyads where only one member dislikes the other (Card & Hodges, 2003). Moreover, the role each member of an enemy dyad takes depends largely on the power differential between the two, especially in terms of aggression and physical strength (Card & Hodges, 2003; Card, Piedrahita, Isaacs, & Hodges, 2002).

At the group level, the situation for victimized children is just as grim. Victimized children are clearly on the margins of the peer ecology. They are widely disliked (and not well liked) by their peers as evidenced by sociometric nominations and these findings have been replicated across diverse ages, races, and countries (e.g., Boivin et al., 1995; Boulton & Smith, 1994; Buhs & Ladd, 2001; Crick, Casas, & Ku, 1999; Forero, McLeLan, Rissel, & Bauman, 1999; Hanish & Guerra, 2000; Hodges et al., 1997; Lagerspetz, Bjorkqvist, Berts, & King, 1982; Olweus, 1993; Pellegrini et al., 1999; Perry et al., 1988). Children likely seek out targets that have been marginalized
by the peer group because targeting low status students is unlikely to be negatively evaluated by the peer group. Longitudinal studies confirm that children of low social status become increasingly victimized over time (Boulton, 1999; Hanish & Guerra, 2000; Hodges & Perry, 1999; Vernberg, 1990; cf. Boivin et al., 1995; Pellegrini, 1995).

Fortunately, children with personal characteristics that signal vulnerability to aggressors (e.g., physical weakness, internalizing behaviors) may be able to escape an escalating cycle of peer abuse by establishing positive dyadic and group relations with their peers. Evidence is emerging that suggests that the actualization of personal risk into victimization by peers depends largely on the quantity and quality of interpersonal relationships. Concurrent data indicate that the association between physical weakness and victimization is strongest for youths with negative peer relations (high peer rejection, few friends, friends who are unable to provide protection) but non-significant for those with positive peer relations (Hodges et al., 1997). Further, longitudinal research has shown that physical weakness fails to translate into victimization over time for those who are not widely disliked by their peers (Hodges & Perry, 1999). Similarly, the positive concurrent associations of victimization with internalizing and externalizing problems are minimized for youths who are not rejected, have many friends, or have friends who can provide protection (Hodges et al., 1997; see also Hanish & Guerra, 2000), and longitudinal evidence indicates that low peer rejection and protective friendships eliminate longitudinal associations between internalizing behaviors and increases in victimization (Hodges, Boivin et al., 1999; Hodges & Perry, 1999).

Implications for psychologists. Although it is clear that certain personal factors place children at-risk for victimization by peers, by no means do we imply that the victim is responsible for their own plight. Ultimately, school personnel are responsible for providing a safe environment for all children. Importantly, the actualization of personal risk into victimization appears to hinge critically on the quantity and quality of relationships with peers at the dyadic and group level. At the dyadic level, it may prove fruitful to promote the development of friendships with well-adjusted peers or a buddy system in which at-risk children are paired with another child who can model more skilled social interactions. It is also important that paired friends or “buddies” are capable of serving a protective function (e.g., are physically strong, prosocial) for the victimized child. Victimized children may also benefit from interventions aimed at working towards resolving conflict with their mutual antipathies, because victimization frequently occurs within this context.

Question 3: How Can Teachers Impact Bullying and Victimization?

Other than the children themselves, teachers are a school’s most valuable resource for combating bullying and victimization. Teachers lie just outside of the peer ecology and help shape, intentionally or unintentionally, the critical microsystems in which children at school interact. Successful teachers guide children toward higher levels of moral reasoning, show warmth, and anticipate interpersonal problems by knowing their students’ social status, peer groups, friends, and enemies. Unfortunately, the little research that exists on the role of the teacher in bullying and victimization indicates that many teachers may not be realizing their potential in this area. Teachers often seem unaware of aggression among their students, or are overwhelmed by its prevalence. Many would benefit from assistance in helping to understand social dynamics among their students. Teachers who try to eradicate bullying without an appreciation of the complexity of peer ecologies invite resistance and defiance that may worsen existing problems.

Differences in aggression between classrooms. Even within the same school, classrooms differ widely in average aggression levels. Children in classrooms where aggression is normative tend to become more aggressive themselves, even in future years. Henry et al. (2000) reported that children in third-grade classrooms where social norms supported aggression became more aggressive
themselves in fourth grade as compared to matched children in classrooms where norms did not support aggression. Kellam, Ling, Merisca, Brown, and Ialongo (1998) found that urban first-grade classrooms varied in their average levels of aggression, and that children in high-aggressive classrooms were at greater risk for long-term adjustment problems than matched children in low-aggressive classrooms.

Teacher practices and beliefs play a role in classroom differences in aggression. Teachers vary dramatically in classroom management skills (Roland & Galloway, 2002) that help shape the structure and values of peer ecologies. Chang (2003) studied over 4,600 seventh through ninth grade children and their 82 teachers in China, asking whether teachers' beliefs about aggression and overall warmth and caring were associated with how aggressive children viewed themselves and were accepted by others. When teachers were warm and caring to everybody, children were less rejecting of aggressive peers than when teachers had very negative beliefs about aggression. However, when teachers had very negative beliefs about aggression the aggressive children in their classrooms perceived themselves as socially competent and efficacious. Chang's (2003) findings are intriguing and suggest how teachers' best efforts at quashing aggression can unwittingly open the way for the creation of alternative authority structures conducive to the emergence of high status aggressors. Chang's (2003) findings on teacher warmth suggest a mechanism by which teachers can reduce stratification along the social status dimension.

Awareness of bullying and sexual harassment. Teachers need to be more aware of same- and cross-sex aggression among their students. Teachers underestimate the prevalence of bullying, too often fail to stop bullying when they see it, and sometimes exacerbate the problem by siding with perpetrators and blaming victims. Olweus (1993) notes that teachers' attitudes are of "major significance for the extent of bully/victim problems" (p. 26) but teachers intervene in only one-third of the bullying cases that come to their attention (see also Newman, Horne, & Webster, 1999; O'Moore, 2000; Rigby, 2001; Smith & Brain, 2000).

The situation is still more alarming when bullying involves negative relationships between boys and girls, implicating larger issues of peer sexual harassment. Bully-victim dyads can emerge from children who are enemies (see Question 2), and a substantial proportion of enemy relationships are between boys and girls. Rodkin, Pearl, Farmer, and Van Acker (in press) examined the enemies of children followed from the spring of third grade to the spring of fourth grade. They examined the proportion of enemy dyads that were composed of a boy and a girl, two boys, and two girls and found that 52% of enemy dyads in the spring of third grade were between boys and girls. Over the two fourth grade assessments, between 41% and 42% of enemy dyads were mixed sex (see also Abecassis et al., 2002; Hodges & Card, in press).

The prevalence of boy-girl enemies speaks to the climate of gender relations between children and is essential for teachers to detect. Similarly, enemy relationships between children of different ethnicities, or between children with and without special needs, can reflect deeper schisms within classroom cultures that require attention. Certainly, evidence on how school personnel deal with peer sexual harassment is disappointing. Pellegrini (2002) concludes that educators are often unaware of sexual harassment and can contribute to its acceptance among children. Rodkin and Fischer (in press) characterized the dynamic that too often emerges between boys and girls as a training ground for sexual harassment where "even well-meaning school service providers can unintentionally collaborate with peer culture dynamics that normalize or reinforce behaviors that to the rest of us clearly suggest harassment." Rodkin and Fischer (in press) review landmark legal cases where teachers and school officials adopted "head in the sand" approaches, punished victims, and failed to punish perpetrators appropriately.

Enforcing policies, avoiding resistance. Researchers have recommended that teachers closely monitor bullying, play an active part in its elimination, and enforce zero-
tolerance policies in an authoritative manner. Olweus (1993) calls for teachers to closely supervise children’s relationships during break times; intervene “where there is only a suspicion that bullying is taking place” (p. 71); and have children internalize school rules that they not bully, aid children who are bullied, and include children who tend to be left out of peer activities. Olweus (1993) also recommends that teachers participate in social milieu development programs where problems concerning bullying and victimization are explored and discussed. A common theme of many antibullying programs is that teachers need to demonstrate complete nontolerance for bullying and get children to do likewise (e.g., Newman et al., 1999; O’Moore, 2000; Rigby, 2001).

Recommendations that stress school policies and active community responses demand high levels of involvement and shared consensus among a number of different parties (e.g., Limper, 2000). Newman et al. (1999; pp. 326, 328) caution that antibullying policies require that “staff, pupils, and parents are committed... everyone [must] believe in the policy” and assume a silent majority in the peer ecology whose antibullying attitudes need to be better vocalized, but not necessarily changed. Rigby’s (2001) “whole school approach” is predicated upon broad agreement involving the active cooperation of all teachers, children, and parents. These interventions have proven helpful but school psychologists must determine whether their schools can meet the needed conditions. The American Association for University Women’s (2001) report on sexual harassment in schools provides a note of caution: Relative to 1993, students are much more likely to report that their schools have policies regarding sexual harassment, but the prevalence of harassing behaviors has hardly decreased.

A related concern is how children react to adult-driven change. Antibullying curricula should account for opposition to school rules and some applications of teachers’ authority. At times, efforts to vanquish aggression may have negative side effects (cf. Chang, 2003). Children’s acceptance of adult-generated rules and prosocial traits (e.g., “I will not bully, I will include those usually left out”) may not reflect private internalization. Teachers need to work with knowledge of the peer ecologies of their classrooms to head off resistance or ridicule. The challenge is not trivial. Hymel, Bonanno, Henderson, and McCreith (2002) report that too many students are morally disengaged about interpersonal aggression, with some reporting positive attitudes about bullying and blaming of the victim (see also Graham & Juvonen, 2001). McFarland’s (2001) study of high schools concluded that “the struggle for identity and control is endemic to every classroom” (p. 665). Resistance may reach a peak during adolescence but can also be characteristic of elementary school children (Adler & Adler, 1998; Ferguson, 2000). Even in early childhood, Corsaro and Eder (1990) note that child societies often attempt to oppose the authority of the teacher.

**Implications for psychologists.** Whole school approaches are effective when schools have the material and social capital to implement them. In the current national climate of increasing demands and decreasing resources, our worry is that these superlative interventions will only be successful in schools where victimization has already reached crisis proportions, or when schools face legal liabilities from previous mistakes (Rodkin & Fischer, in press).

Well before a crisis, teachers have a vital role to play in preventing bullying and victimization. As Pellegrini (2002) notes, teacher awareness and concern is a necessary first step. Teachers who are attentive to interpersonal aggression among their students should help their fellow teachers become more aware. Teachers should be well-informed about the social dynamics operating among their students, including groups that support and oppose bullying, potential victims and appropriate friendships that can connect them to others, enemies that children have, and underlying hostilities between children in the same or different groups. In part, teachers acquire this information by being connected to all sectors of the peer ecology: bullies, victims, and other children (cf. Chang, 2003), but more objective sociometric assessments are also very helpful. In sum, accurate understanding of a peer ecology is the platform from which intelligent deci-
sions can be made about restructuring children's groups, encouraging feasible social relationships, and anticipating possible conflict.

**Question 4: How Can Parents Impact Bullying and Victimization?**

Our final question focuses on how family functioning can translate into the behavioral difficulties in the school context that contribute to the establishment and maintenance of bully-victim relationships. Although much has been learned about how parent-child relationships affect aggressive development (for a review, see Hodges, Card, & Isaacs, 2002; Perry et al., 2001), relatively little research has been devoted to understanding how parent-child relationships contribute to the likelihood of children becoming victimized by their peers. Below, we review recent research that focuses on two areas of family functioning—attachment quality and parental child-rearing practices.

Attachment histories appear to play an important role in establishing aggressive-victim relationships. Aggressive-victim dyads are more likely to be composed of individuals with histories of insecure attachment with their mother (Troy & Sroufe, 1987). Subtypes of insecurity (avoidant or preoccupied) also appear to provide information regarding whether individuals adopt the bully or victim role within these dyads. Children with avoidant relationship stances toward their mother deny distress and affection regarding their mother, fail to seek comfort from their mother when upset, avoid their mother during reunion and exploration of their environment, and refuse to utilize their mother as a task-relevant resource. Children with preoccupied relationship stances experience an overwhelming need for their mother when faced with novelty and stress-eliciting situations, trouble separating from their mother, excessive concern over their mother's whereabouts, prolonged upset following reunion, and trouble exploring their environment or meeting challenges. Avoidant attachment has been found to predict, concurrently and over time, aggression and externalizing behaviors. Preoccupied attachment has been found to predict victimization and internalizing behaviors (Finnegan, Hodges, & Perry, 1996; Hodges, Finnegan, & Perry, 1999).

Children are more likely to be victimized if their parents engage in practices that impede autonomy development or threaten the parent-child relationship (e.g., Finnegan, Hodges, & Perry, 1998; Ladd & Ladd, 1998), although gender specific linkages may exist. Maternal overprotectiveness and intense mother-child closeness are positively associated with victimization, especially among boys (Finnegan et al., 1998; Ladd & Ladd, 1998; cf. Lagerspetz et al., 1982; Rigby, Slee, & Cunningham, 1999). Intrusive demandingness, coercion, and threats of rejection are linked to victimization, especially among girls (Finnegan et al., 1998; Ladd & Ladd, 1998). Child abuse, a more extreme form of coercive parenting behavior, has also been connected to victimization by peers (Duncan, 1999; Shields & Cicchetti, 2001). This relation has been accounted for by elevated emotional dysregulation by abused youths (Shields & Cicchetti, 2001). This suggests that the process by which many of these familial correlates antecede victimization is through the fostering of personal factors (e.g., emotional dysregulation or internalizing difficulties; see also Finnegan et al., 1996) that may be transferred to, and expressed in, the peer group.

It is likely that family influences on victimization depend largely on whether children form quality peer relationships at school. However, only one study, to our knowledge, has directly examined this possibility. Schwartz and his colleagues (Schwartz, Dodge, Pettit, Bates, & the Conduct Problems Prevention Research Group, 2000) found that the relation between an early harsh environment (homes characterized by high levels of marital conflict, stress, abuse, hostility, and harsh discipline) and victimization by peers was nonexistent for children with many friends and exacerbated for children with few friends. Other extraschool context influences on victimization also appear to depend on children's relationships with peers at school. For example, Schwartz et al. (in press) found that the effect of community violence exposure on victimization was present
Implications for psychologists. It is important to recognize that, although etiological factors may extend to the home context, children who are fortunate enough to establish quality interpersonal relationships and to avoid negative interpersonal relationships are likely to reduce or eliminate the associations of inept or low quality parent-child relations to peer victimization. One caveat to the literature reviewed above, however, is that most studies examining linkages between the family and victimization by peers have been concurrent in nature, limiting the ability to infer direction of effect. It may be possible, for example, that children who are victimized by peers behave in ways that affect parents’ choices of discipline strategies. Although there is a need for longitudinal research that untangles the causal direction of these effects, school psychologists should be hopeful in that they are empowered to effect change in developmental trajectories arising from the home context by focusing on, and being sensitive to, children’s peer relationships at school.

Conclusions

This review organized research on aggression and victimization from an ecological perspective. We introduced the concept of a peer ecology as the aspect of children’s school-based microsystems consisting of children interacting with other children. Our review of bullies indicates that aggressors can have two broad stances toward the peer ecology: disconnection and engagement. Some bullies are rejected, but others have high social status. Some bullies are loners or hang out with deviant peers, but others have a variety of relationships. The complex social roots of bullying when bullies are engaged with peers may be immune to traditional intervention techniques. For victims, disconnection and estrangement is more clearly the problem. The dangers of being chronically victimized are severe, but peer relationships can serve as a lifeboat. When victimized children are appropriately integrated into their peer ecologies, forming the right friendships and heading off destructive antipathies, present and future risks can be reduced.

The peer ecology approach brings attention to all children, not just those who are bullies or victims. Children who are neither bullies nor victims can be part of the solution or part of the problem. Nonaggressive children can contribute to the social success of some bullies (Rodkin et al., 2003; Salmivalli et al., 1997), fail to intervene against bullying when they could (but see Hawkins et al., 2001), contribute to victim blame (Graham & Juvonen, 2001; Hymel et al., 2002), and become more aggressive themselves if aggression seems normative to them (Henry et al., 2000; Kellam et al., 1998). The implication of these findings is that background conditions in the peer ecology can make bullying more or less acceptable to children, and even to school personnel (Rodkin & Fischer, in press).

The peer ecology can be influenced by outside social factors, for example teachers in the microsystem and parents in the mesosystem (Bronfenbrenner, 1979). Teachers and parents impact childhood bullying and victimization, but too often their impact is negative. Teachers may contribute to bullying through a lack of awareness, by taking a nonchalant attitude towards bullying, or through uninformed interventions. Parents who are insecurely attached to their children, or who are excessively overprotective, intrusive, or coercive, can establish in their children deep-seated vulnerabilities for victimization.

We encourage teachers to understand how the critical social elements of status, peer groups, friendships, and enemy relationships are patterned in their classrooms. Bully-victim relationships always involve a power imbalance (Olweus, 1993). Children react differently to victimization depending on whether aggressors have high or low social status. Some bullies maintain their social capital by participating in groups that include popular, nonaggressive peers. Emerging and established enemy relationships give clues about where bullying is likely to arise. Friendships can sometimes be created as a tonic to relieve victimization. These elements of children’s peer ecologies help reveal the context in which bul-
lying unfolds and the social dynamics by which it is maintained, giving school service professionals specific information about the nature of the social problem they confront.

Teachers are not powerless when it comes to bullying and victimization. Rather, they are the leaders and diplomats of their classrooms. Their goal is not only to enforce rules, but also to resolve conflicts and promote healthy relationships. Teachers are in a unique position to have a positive influence on childhood social dynamics (Chang, 2003; Farmer, 2000). It is unfortunate when adults give up on children who come from “bad families,” or express futility at altering social patterns learned in the home over many years (Ferguson, 2000). Our review shows the importance of families but emphasizes the ameliorative effects of appropriate interpersonal relationships (Hodges, Boivin et al., 1999). H. S. Sullivan (1948/1953) took issue with the psychoanalytic idea that personality was formed early and at home, arguing that “during the juvenile era a number of influences of vicious family life may be attenuated and corrected” (p. 247). Sullivan (1948/1953) wrote that all children need to have a good, close friend. With good friends, children flatten out the “warps” of inferior parenting and can “literally be put on the right road to a fairly adequate personality development” (p. 251). Current research finds Sullivan’s (1948/1953) ambitious propositions still relevant. Skillful teachers orchestrate positive peer relationships that can offset adjustment risks incurred in the home. Part of this involves knowing what relationships are feasible to maintain and how the development of new friendships might impact and invite reaction from other students in the class.

Kurt Lewin (1943), a child psychologist whose signature research harnessed social forces for the public good, encouraged educators to move beyond the “peculiar mixture of philosophy and instinct” (p. 143) that can sometimes be used to manage the social atmosphere of a classroom. Drawing from Lewin’s (1943) insights, sociometric assessments were once routinely used in classrooms as practical instruments to prevent conflict and promote successful socialization (Gronlund, 1959). Sociometric assessments continue to have an essential role to play in intervention, research, and teacher training. Modern research-based sociometric technologies are increasingly advanced, relatively unobtrusive, objective, informative for participants, and sensitive to ethical issues (Cillessen & Bukowski, 2000; Rodkin, 2003). When children are asked about their interpersonal likes and dislikes, group affiliations, and perceptions of social status, their peer ecologies can be mapped and tracked in detail (e.g., Sherif, 1956). We urge greater use of sociometric and social network techniques in anti-bullying curricula: They are scientifically validated and represent the valuable, confidential perspectives of children. For school service personnel without these resources, much can be gained by careful attention to and informed engagement in children’s peer ecologies. Nothing can be as powerful an obstacle as or effective a tool in preventing bullying as the forces children create by socializing one another.

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