Published in final edited form as:

Psychol Violence. 2011 ; 1(3): 188–201. doi:10.1037/a0023711.

Toward a Relationship Perspective on Aggression among Schoolchildren: Integrating Social Cognitive and Interdependence Theories

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Abstract

The traditional psychological approach of studying aggression among schoolchildren in terms of individual differences in aggression and in victimization has been valuable in identifying prevalence rates, risk, and consequences of involvement in aggression. However, it is argued that a focus on aggressor-victim relationships is warranted based on both conceptual and empirical grounds. Such a shift in focus requires modification and integration of existing theories of aggression, and this paper integrates social cognitive theory and interdependence theory to suggest a new, interdependent social cognitive theory of aggression. Specifically, this paper identifies points of overlap and different foci between these theories, and it illustrates their integration through a proposed model of the emergence of aggressor-victim interactions and relationships. The paper concludes that expanding consideration to include aggressor-victim relationships among schoolchildren offers considerable theoretical, empirical, and intervention opportunities.

Keywords

Aggression; Interdependence Theory; Relationships; Social Cognitive Theory; Victimization

Aggression among schoolchildren is a common problem that is associated with maladjustment for both aggressors and their victims. Existing research converges to suggest that 10 to 20% of schoolchildren engage in aggression toward peers, 10-20% are victimized by peers, and 5-10% are both aggressive toward and victimized by peers (Nansel et al., 2001; Olweus, 1978; Perry, Kusel, & Perry, 1988). Aggressors are at increased risk of short-term maladjustment, including suffering poorer academic outcomes such as disengagement from school, and interpersonal problems such as peer rejection. Aggressors are also more likely than nonaggressors to experience longer-term delinquency, substance use, and school dropout during adolescence, and criminal behavior, poor marital relations, and unemployment / underemployment during adulthood (Farrington, 1991; Moffitt, 1993;

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Olweus). Victims also suffer anxiety and depression, low self-concept, academic difficulties such as school avoidance, and interpersonal difficulties such as peer rejection and having fewer friends in the short term (Card, Isaacs, & Hodges, 2007), and the limited available evidence suggests that these problems continue into adulthood (Alsaker & Olweus, 2002; Gilmartin, 1987).

Given the prevalence and maladjustment associated with aggression among schoolchildren, understanding the factors that predict the emergence and maintenance of aggression is critical. This paper advances the argument that considerable understanding of aggression among schoolchildren can be gained by taking a relationship perspective, in which we focus on the relationship between a specific aggressor and a specific victim. Such a focus supplements the traditional focus of developmental psychology on predictors of individual differences in aggression or, separately, victimization, with a consideration of the combination of characteristics possessed by both children that facilitate and maintain an aggressor-victim relationship. Such a focus requires modification of existing theoretical perspectives in psychology typically applied to individual differences. Furthermore, consideration of aggressor-victim relationships suggests new approaches to scientific investigation of the problem, and ultimately to intervention that may be more effective than current efforts based on an individual differences perspective.

In this paper, the developmental psychology literature from an individual differences perspective is briefly reviewed in order to highlight select risk factors for aggression and for victimization. The existing research that demonstrates the existence and saliency of aggressor-victim relationships within children's peer groups is then described. The paper then describes how social cognitive and interdependence theories could be modified and integrated for application to aggressor-victim relationships. Finally, the paper concludes with a discussion of the opportunities and challenges a relationship perspective offers for the study of, and intervention for, aggression among schoolchildren.

A Brief Review of Individual Risk Factors for Aggression and Victimization

Risk Factors for Aggression

Although genetic risk (Miles & Carey, 1997; Rhee & Waldman, 2007) and macrosystemic cultural factors (e.g., exposure to violent media; Anderson et al., 2010; Bushman & Anderson, 2001) undoubtedly place some children at risk for aggression, the majority of developmental psychology research has focused on more proximal risk factors occurring in the home and peer group (see Hodges, Card, & Isaacs, 2003). Within the home, parental permissiveness or lack of monitoring (Griffin, Botvin, Scheier, Diaz, & Miller, 2000), parental negativity or rejection versus warmth and support (McHale, Johnson, & Sinclair, 1999), inconsistent discipline (Snyder & Patterson, 1995), and exposure to aggression through interparental abuse, physical punishment toward the child, or sibling aggression (Dodge, Bates, & Pettit, 1990; MacKinnon-Lewis, Starnes, Volling, & Johnson, 1997) are factors that place children at increased risk for enacting aggression toward peers. Within the peer group, peer rejection (Coie, Lochman, Terry, & Hyman, 1992; Dodge, 1983) and victimization (Egan, Monson, & Perry, 1998) by the peer group contribute to aggression, as does affiliating with aggressive friends (Brechwald & Prinstein, in press; Dishion, McCord,

& Poulin, 1999; Dishion, Spracklen, Andrews, & Patterson, 1996; Patterson, 1986; Sijtsema et al., 2010). The mechanisms by which many of these risk factors translate into aggressive behavior are believed to operate through the emergence of social cognitions supporting aggression (Dodge, Pettit, Bates, & Valente, 1995; Egan et al., 1998), described in greater detail below.

Risk Factors for Victimization

As with aggressors, victims often have experiences in the home and peer contexts that place them at risk (Card et al., 2007; Perry, Hodges, & Egan, 2001). In the home, these risk factors include low levels of parental involvement, responsiveness, and support (Haynie et al., 2001; Ladd & Kochenderfer-Ladd, 1998); abuse (Duncan, 1999; Shields & Cicchetti, 2001); and parental over-enmeshment among boys and threats of rejection among girls (Finnegan, Hodges, & Perry, 1998). These risk factors likely operate in one of two ways. The first is by fostering internalizing symptoms, such as depression, anxiety, and withdrawn behaviors, which lead in turn to being perceived by potential aggressors as 'easy targets' who will not defend themselves (Egan & Perry, 1998; Hodges & Perry, 1999). Second, these family risk factors can contribute to externalizing problems such as hyperactivity and emotional dysregulation that might be seen as provocative by potential aggressors (Pope & Bierman, 1999; Shields & Cicchetti, 2001). Victims also often have social relations within the peer group that place them at risk for peer victimization, including being disliked by many peers and liked by few (Boulton, 1999; Hodges & Perry, 1999), having few friends or friends who are themselves victimized (Hodges, Boivin, Vitaro, & Bukowski, 1999; Hodges & Perry, 1999; Salmivalli, Huttunen, & Lagerspetz, 1997), and having antipathetic relationships (Card & Hodges, 2007). The presence of these characteristics in no way justifies their victimization from a moral standpoint, but these characteristics nevertheless place children at risk for victimization in contexts in which aggression occurs.

Rationale for Considering Aggressor-Victim Relationships

The individual-level focus of much theoretical and empirical literature on aggression and victimization among schoolchildren has several limitations. One limitation of this focus is that the literatures on aggression and on victimization have progressed somewhat separately, with most scholars focusing on one aspect but not the other. More importantly, the focus on individual differences has resulted in a decontextualized perspective of the phenomena, investigating aggression as if it only involved indiscriminant acts toward peers in general and victimization as if it were exclusively a form of mobbing imposed by an entire peer group on the unfortunate victims. In other words, the traditional focus on individual differences has failed to consider the inextricable link between specific aggressors and their victims. A consideration of aggressor-victim relationships overcomes these limitations. Moreover, as described next, there are convincing conceptual and empirical reasons to adapt this relationship perspective.

Conceptual Rationale for Relationship Focus

With only a very few exceptions, such as self-injurious behavior and aggression toward animals or inanimate objects, aggressive behavior necessarily involves at least two

individuals. This does not imply that aggression occurs solely in the presence of a single aggressor and single victim. Indeed, the presence of others during aggressive interactions can play influential roles in the occurrence or prevention of aggression, as these others can act as additional aggressors (Card & Hodges, 2006), assistants or reinforcers of the aggressor by cheering on the aggressor or passing on rumors started by the aggressor, or defenders of the victim by intervening on behalf of the victim (Salmivalli, 2001). Nevertheless, aggressor-victim relationships represent the simplest interpersonal focus for considering acts of aggressive behavior that necessarily occur amongst at least two individuals, and therefore represents a fundamental unit of consideration in moving beyond an individual-difference perspective.

Empirical Rationale for Relationship Focus

The empirical investigation of aggressor-victim relationships is limited, but the studies that have adapted this perspective provide convincing data for the importance of a relationship focus. The first study to demonstrate the saliency of aggressor-victim relationships was of 6- and 8-year-old boys in laboratory play groups observed over multiple daily sessions (Dodge, Price, Coie, & Christopoulos, 1990). Results indicated that 50% of aggressive acts occurred within just 20% of two-child pairings, and that pairings in which aggression occurred in one play session tended to be the same in which aggression occurred in other play sessions. These results provide evidence that a sizable percentage of aggressive behavior occurs within specific aggressor-victim relationships. A separate investigation (Coie et al., 1999) also relying on observations of aggression in boys' laboratory play groups used Social Relations Modeling (SRM; see Kenny, 1994) to partition the variance of aggressive acts into three components: (a) individual differences among aggressors, in which some children enact frequent aggression whereas others enact little; (b) individual differences among victims, in which some children are victimized more frequently than others; and (c) stable relationship differences, in which some dyads consistently contain more aggression than others. Although individual differences in aggression and victimization were found to be statistically significant, stable aggressor-victim relationships accounted for greater variability in the occurrence of aggression.

Although these studies were valuable in demonstrating the importance of a relationship focus on aggression, they were also limited in focusing exclusively on boys' aggression within artificial playgroups. A small amount of recent work has attempted to evaluate aggressor-victim relationships among both genders in naturalistic school contexts, and the results thus far also support the importance of a relationship focus. Veenstra and colleagues (2007; see also Sitjema, Veenstra, Lindenberg, & Salmivalli, 2009) published the first study of aggressor-victim relationships in school settings, identifying these relationships from single items of aggressors' reports ("Who do you bully?") and victims' reports ("By whom are you bullied?"). Card and Hodges (2010) extended the study of aggressor-victim relationships in school setting by evaluating a multi-item self-report instrument in which early adolescents in several middle school classes identified specific peers they aggress against or are victimized by. These authors also conducted SRM variance partitioning procedures similar to Coie and colleagues (1999), and similarly found that relationship effects contributed the most variability in the occurrence of aggressive behaviors. In fact,

Card and Hodges (2010) found that specific aggressor-victim relationships accounted for 70 to 77% (for aggressor- and victim-reports, respectively) of the variability in the occurrence of aggression, values higher than that of Coie et al (1999) in laboratory playgroups. The results of Veenstra et al. (2007) and of Card and Hodges (2010) indicate that aggressor-victim relationships are an important level of focus in naturally occurring settings such as school peer groups.

Toward A Theory of Aggressor-Victim Relationships

Reframing consideration of aggression among schoolchildren within a relationship, or aggressor-victim relationship, perspective offers the opportunity of reconsidering this problem from a new set of theoretical perspectives. Prior efforts from an individual-differences perspective have applied person-oriented theories, such as genetic, biological, psychodynamic, learning, and social-cognitive models, to the problem of aggression among schoolchildren. A relationship focus on this problem requires us to expand person-oriented theories of aggression to consider two-person relationships. In this section, the adaptation of social cognitive theory to this relationship perspective is described, and subsequently integrated with interdependence theory to yield a new, interdependent social cognitive theory of aggression.

Social Cognitive Theory

This section will briefly describe how social cognitive theory has been used to understand individual differences in aggression and in victimization. After this description, interdependence theory will be briefly introduced and then integrated with social cognitive theory to yield a new, interdependent social cognitive theory of aggressor-victim relationships.

Social Cognitions for Aggression—Social cognitive theory, in its various forms, has been extensively applied to describe individual differences in aggression. Bandura's (1986) social-cognitive learning model emphasizes both experiential and observational learning in various contexts, such as in the home, in the peer group, and through mass media, on three cognitive components underlying aggressive behavior: (1) self-efficacy for aggression, which is the confidence individuals have in their ability to enact aggression; (2) outcome expectations for aggression, which are the beliefs that aggressive behavior will result in positive outcomes; and (3) outcome values for aggression, which is the perceived desirability of outcomes obtained through the use of aggression. Research has shown that these three social-cognitive components are independently (i.e., additively) predictive of individual differences in aggressive behavior, both concurrently (Boldizar, Perry, & Perry, 1989; Perry, Perry, & Rasmussen, 1986) and over time (Egan et al., 1998).

Although not the only social cognitive theory applied to individual differences in aggression (see Crick & Dodge, 1994; Gifford-Smith & Rabiner, 2004), Bandura's (1986) theory provides a useful description of individual differences in social cognitions underlying individual differences in schoolchildren's aggressive behavior. Prior socializing experiences in the home, with peers, and/or from media exposure contribute to cognitions that either discourage or support aggressive behavior, which in turn lead to nonaggressive or aggressive

behavior. Of course, such a simplified view is not realistic, in that there is certainly a continuum of social cognitions and combinations of social cognitions that contribute to the observed continuum of individual differences in aggression. Nevertheless, this simplification summarizes the basic approach to applying social cognitive theory to understanding individual differences in aggression.

Social Cognitions for Victimization—Although less investigated than social cognitions for aggression, there is some literature applying social cognitive theory to understand individual differences in victimization. This literature focuses on both the social cognitions held by the peer group toward victimized children as well as the social cognitions held by victimized children themselves.

Perry, Williard, and Perry (1990) examined the social cognitions that children in general (i.e., not just aggressors) hold toward children who are victimized. They found that peers expect that aggressive behavior would result in more tangible rewards, would result in more victim suffering, and would be less likely to result in retaliation when directed toward children viewed as highly victimized relative to those viewed as not victimized. These findings indicate that differences in how children are perceived by their peers, or the social cognitions that peers have toward them, are related to being victimized by peers, presumably because at least some children are likely to act on these social cognitions.

There is limited empirical support for the theoretical contention that social cognitions held by children are predictive of their victimization by peers. Specifically, there is evidence that victims have low self-efficacy for assertion (Camodeca & Goossens, 2005; Egan & Perry, 1998), leading them to behave submissively rather than assertively to aggressive overtures (Schwartz, Dodge, & Coie, 1993). Victims often do not seek help in preventing or countering aggression. One reason for not reporting victimization to teachers is that victims often believe such action will not improve, and may even worsen, their situation (Newman & Murray, 2005; Smith & Shu, 2000). Although victims' cognitions that discourage seeking support may have arisen due to environments that were unsupportive, such as in problematic home environments and peer groups in which the child has poor relations described above, the long-term maintenance of these social cognitions may maintain vulnerability to victimization because it precludes seeking assistance if the environment changes. In sum, the social cognitions held by children themselves appear to predict individual differences in their victimization by peers. Again, holding these social cognitions does not justify children's victimization, but instead serve as vulnerabilities that place children at risk in contexts where aggression occurs.

Interdependence Theory

Relationship science is an interdisciplinary field that investigates various types of relationships, including romantic relationships, friendships, and parent-child relationships (Berscheid, 1994). More generally, any two-person system in which repeated interactions occur, partners influence one another, and the relationship partner is unique can be considered a relationship (for comparable definitions, see Berscheid, 1994; Hinde, 1979; Laursen & Bukowski, 1997). Given this definition, aggressor-victim relationships are a

reasonable consideration for relationship science. However, to date, this field has not attempted to articulate relationship theories to explain aggressor-victim relationships among children.

A challenge of applying theories from relationship science to the problem of aggression among schoolchildren is that many of the relationship theories are applied within the context of specific types of relationships generally defined by positive bonds, such as friendships or romantic relationships, making it difficult to generalize these theories to encompass aggressor-victim relationships. Exceptions exist, however. In this section, the more general interdependence theory of Thibaut and Kelley (1959; Kelley & Thibaut, 1978; Kelley et al., 2003) will be considered.

The aspect of interdependence theory that is central to the present argument is the concept of outcome interdependence. In situations such as the day-to-day interactions occurring at school, children have the choice to enact various behaviors, such as being aggressive or prosocial, resisting or submitting to provocations, and defending victims or supporting aggressors. The choices that children make probabilistically lead to various outcomes, such as obtaining or losing material or social rewards, or ending versus continuing aversive interactions. The important extension of interdependence theory beyond person-oriented theories, however, is the recognition that individuals' outcomes depend on the joint behavioral choices of all involved individuals. In other words, a child's outcomes are dependent not only on the behaviors that the child enacts, but also the responses of the peer who is the target of these behaviors as well as the peers who might intercede in the interaction.

Applying this concept of outcome interdependence to an interaction between a potential aggressor and victim, we might imagine a situation in which Child 1 desires a toy possessed by Child 2. Child 1 has several options, including seeking another toy instead, attempting to obtain the toy through prosocial means such as engaging Child 2 in interactive play around the toy, and attempting to obtain the toy through aggressive means. If Child 1 does decide to act aggressively toward Child 2, then Child 2 has several options for responding, which include defending the toy by, for example, assertively saying "no", or submitting to the aggressor by, for example, relinquishing the toy and leaving. There are of course many other options, such as seeking a compromise by inviting Child 1 to play together with the toy, ignoring the behavior if the aggression is subtle, or relinquishing the toy but seeking assistance from a teacher¹. Despite the complexities of possible outcomes, the key point is that Child 2 enacts some behavior in response to Child 1's initial aggression. There is also the possibility that peers could become involved by defending the victim, assisting the aggressor, informing an adult, or simply observing the sequence so that the outcome has implications for social reputations in addition to possession of the toy. The central idea of

¹The topic of how children respond to provocation and the likely outcomes of these responses has received surprisingly little investigation (for an exception, see Champion & Clay, 2007). The outcome of responses likely depends on many factors, such as whether the initial aggression is direct or indirect, serves proactive or reactive functions, and the context in which it occurs. Consistent with the arguments of this paper, the outcome also likely depends on the characteristics and relationship histories of the two individuals involved. Further research is needed that evaluates the typical outcomes of different responses in order to inform both our scientific understanding and the advice given to children.

outcome interdependence is that the results of these sequences for each child depend on the actions of both children, and potentially the actions of any bystanders.

Interdependence theory often represents these interdependent outcomes as quantified values for the involved parties. For instance, in the previous example, it might be specified that Child 1 pushing Child 2 who gives up the toy results in +10 for Child 1 to quantify the positive outcome of gaining the toy and -5 for Child 2 to quantify the negative outcome of losing the toy. Interdependence theory predicts that the values associated with different outcomes determine the likely behaviors of both individuals and, in turn, the likely sequence of events. However, these values are both subjective and uncertain, which makes aggression among schoolchildren much more complex than a simplified analysis of numbers representing outcomes. The next section presents an initial attempt to integrate social cognitive and interdependence theories to explain the occurrence of aggression among schoolchildren.

Integrated Social Cognitive and Interdependence Theories

The value of considering both social cognitive and interdependence theories is that these two theoretical perspectives can be integrated to provide a more complete theory of aggressor-victim relationships. Two initial steps toward integrating these theories are proposed. A first step is to consider the overlap between the two theories as well as areas in which the theories compliment, though do not contradict, one another. A second step is to align the two theories around a proposed sequence for the emergence of aggressor-victim relationships. Although this integration will necessarily be incomplete given the absence of empirical work, the result represents progress in a direction that guides future research and intervention efforts.

Partially Overlapping Coverage—An initial step in integrating social cognitive and interdependence theories to explain aggressor-victim relationships is simply to recognize the points of overlap between the theories. Social cognitive theory focuses on the mental representations of situations and potential outcomes, whereas interdependence theory highlights the mutual impact partners have on one another's outcomes. Social cognitive theory suggests that the interdependent outcomes exist not as quantified absolutes as is typically considered within interdependence theory, but rather subjective expectations held by interacting partners. For example, self-efficacy and outcome expectations represent predicted probabilities of various outcomes, and outcome values represent the valuations placed on these outcomes. So the anticipated value that is the focus of interdependence theory is determined by the social cognitions of the children. It is implausible that children make precise quantifications of these probabilities or costs that are considered in interdependence theory. However, these evaluations do not need to be precise in order to be informative, as their approximate relative values are usually useful in identifying the type of interaction that is likely to transpire (Kelley et al., 2003).

It is also important to recognize that the points of divergence between social cognitive and interdependence theory are due to different, rather than contradictory, foci. Interdependence theory, at least in the basic form presented here, generally has little to say about the

differences among individuals in their values of the outcomes. Exceptions exist (McClintock & Liebrand, 1988), but it is reasonable to conclude that interdependence theory focuses more on variations across situations than the individual differences among people in the situation (Kelley et al., 2003). In contrast, social cognitive theory as portrayed thus far tends to focus more on individual difference among people with less regard to differences across situations.

Therefore, the theories are not contradictory, but simply have somewhat different areas of emphasis. It is not implausible that bridges between these two perspectives can be built when both are applied to specific substantive domains. For example, theoretical and empirical work in personality research have shown that personality is better understood as a stable configuration of behaviors across various contexts rather than as a collection of context-invariant traits (Cervone, 2004; Mischel & Shoda, 1995; Shoda, Mischel, & Wright, 1994). This work represents a synthesis of considering variations among people and situation. Similarly, social cognitions supporting aggressive behavior are likely to be specialized to some degree toward particular peers. Supporting this contention, Hubbard, Dodge, Cillessen, Coie, and Schwartz (2001) measured hostile attributions and outcome expectations for aggression at the dyadic level in the third grade boys' laboratory play groups described earlier (Coie et al., 1999). They found that as much of the variability in these social cognitions was dyadic as was due to individual differences in individuals or their targets. Furthermore, these dyadic social cognitions predicted dyadic behavior; i.e., Child 1's social cognitions about Child 2 predicted Child 1's aggression toward Child 2. Although not yet evaluated, it seems likely that social cognitions promoting victimization also have some degree of partner specificity, as it is likely that a victim feels, for example, more able to behave assertively to provocation from some peers than from others.

Another way that the two theories can be synthesized around the problem of aggression among schoolchildren is to consider social cognitions occurring among 'types' of peers. Toward this end, it is probably useful to think about social cognitions as having a hierarchical organization in which an individual has both generalized and relationship-specific cognitions and resultant behavioral patterns. Between these two endpoints, however, is an intermediate level of organization, in which individuals hold social cognitions about *types* of peers. Here, the types might be culturally defined, such as peers of different ethnic groups or sexual orientations. This perspective would be useful in understanding biased aggression, such as ethnic- (Scherr & Larson, 2010) and sexuality- (Poteit & Rivers, 2010; Toomey, Ryan, Diaz, Card, & Russell, 2010) based aggression. Alternatively, the salient types might be defined in terms of affective relationships, and there exists evidence that schoolchildren differ in their social cognitions and aggression toward friends, acquaintances, and disliked peers (Card, 2007; Card & Hodges, 2007; Peets, Hodges, & Salmivalli, 2008). A third possibility is that the salient 'types' of peers are defined by social status (Faris & Felmlee, 2011). These possibilities are not mutually exclusive.

A sequence for the emergence of aggressor-victim relationships—Another approach to synthesizing social cognitive and interdependence theories is to align the relative perspectives of each to the sequence of cognitions and behaviors that lead to the occurrence of aggression among schoolchildren. Figure 1 presents such an alignment, in

which the social cognitions involved in a sequence of behaviors by a potential aggressor and victim are summarized (see also Card, Isaacs, & Hodges, 2009). This model might be relevant to either a single aggressive interaction and/or the emergence of a longer-term aggressor-victim relationship, though it should be emphasized that the model has not been empirically evaluated for either possibility.

Consider first the chain of events along the top of Figure 1, in which a child's prior socialization has led to social cognitions that discourage aggression. The first potential outcome is that this child attempts to aggress against another child who does not have a reputation among peers that would encourage victimization. This is an unlikely occurrence, so it is not considered further. The second pathway in the upper portion of Figure 1 involves this child with aggression-discouraging cognitions aggressing against another child for whom peers hold aggression-encouraging cognitions. In this instance, the targeted child might hold social cognitions toward the attacker that lead the child to either defend himself/herself or submit to the attack. If the targeted child successfully defends or otherwise makes the attack unrewarding to the attacker, then it is likely that the attacker will not attempt further attacks on the target in the future and this experience will likely further contribute to the attacker's aggression-discouraging cognitions. In contrast, if the victim submits or otherwise rewards the aggressor's attack, then the aggression toward this target is likely to be reinforced, resulting in the potential formation of an aggressor-victim relationship.

The lower half of Figure 1 displays the situation of a child (potential aggressor) who has social cognitions supporting aggression. As with the upper half of Figure 1, there are two potential targets of their aggression, those for whom the peer group holds aggression-discouraging cognitions (upward arrow) and those for whom peer group holds aggression-encouraging cognitions (downward arrow). Considering the first instance, there are again possibilities, based on the social cognitions held by the target, of the target defending or submitting. If the target successfully repels the attack, which might be especially likely given that peers are likely to defend the target, then it is unlikely that an aggressor-victim relationship will occur, the attacker is likely to consider other targets for aggression, and the target is likely to further encourage the peer groups' view that he or she is not a potential victim. However, if the target submits or is otherwise unable to defend the attack, then it is possible that an aggressor-victim relationship will emerge.

Finally, the lower portion of Figure 1 displays a situation in which a child with aggression-encouraging cognitions attacks a target toward whom the peer group holds aggression-encouraging cognitions. This is likely the most common situation. The first possibility is that the target successfully repels the attack; if this occurs then the attacker is likely to attempt aggression again through different means (e.g., using a different form of aggression, gathering assistants for future attacks), seek other targets for aggression, or reduce cognitions about aggressive behavior (e.g., experience diminished self-efficacy for aggression). The second possibility is that the victim succumbs to the attack, resulting in an aggressor-victim relationship. This outcome may also lead the aggressor to attempt aggression toward targets similar to the victim, as well as for children similar to the aggressor to attempt attacks against the victim.

This model is certainly an oversimplified representation of the processes that occur within aggressive interactions and ultimately lead to the formation of aggressor-victim relationships. Where this model is likely most over-simplified is that it fails to capture the highly personal nature that likely characterizes most aggression. In other words, a full explanation of aggression needs to consider at least three additional factors. The first consideration involves the reasons that a specific child attacks specific targets, which might involve certain behaviors of the victim being perceived as particularly provocative to the aggressor, the victim yielding rewards perceived as particularly appealing to the aggressor, or aggression toward the victim serving particular goals of the aggressor (Hubbard et al., 2001; Salmivalli & Peets, 2009; Veenstra, Lindenberg, Munniksma, & Dijkstra, 2010). The second consideration involves the characteristics of the attack itself, such as whether the aggression is overt or relational (Card, Stucky, Sawalani, & Little, 2008), serves proactive or reactive functions (Card & Little, 2006), or occurs in different contexts (Craig, Pepler, & Atlas, 2000). The third consideration is of the ability of the target to defend himself or herself, based on relative power between the attacker and target (Veenstra et al., 2007), the availability and willingness of peers to defend the victims from the particular attacker (Hawkins, Pepler, & Craig, 2001; Salmivalli, 2000), and the willingness to seek and the effectiveness of adult intervention (Newman & Murray, 2005; Smith & Shu, 2000). Despite these shortcomings, this proposed sequence of the emergence of aggressor-victim relationships integrates key elements of social cognitive theory, with an emphasis on individual differences in social cognitions as probabilistic determinants of behavior, and interdependence theory, with an emphasis on the behaviors of both parties in guiding the outcome of the interaction.

Limitations to a Relationship Perspective

Although the purpose of this paper is to highlight the aggressor-victim relationship as an important focus of attention, it is important to remember that the relationship is simply one unit of consideration. In the variance partitioning studies described earlier (Card & Hodges, 2008; Coie et al., 1999) individual differences among aggressors and among victims were present. There also is considerable evidence that individual differences in both aggression and victimization are stable across time and contexts (Egan & Perry, 1998; Finkelhor, Ormrod, & Turner, 2007; Finkelhor, Ormrod, Turner, & Hamby, 2005; Finkelhor, Turner, Ormrod, & Hamby, 2009; Huesmann, Eron, Lefkowitz, & Walder, 1984; Olweus, 1978, 1979), indicating that individual difference persist across different sets of interactional partners. Given this well-documented importance of individual differences, the relationship focus argued for in this paper is intended to *complement* rather than *replace* an individual-difference focus.

Similarly, it should be remembered that aggressor-victim relationships are certainly influenced by the large context in which they are embedded. At a minimum, aggressor-victim relationships represent just single pairings within the large peer network, and the existence of these pairings likely both influence and are influenced by broader network and group phenomena (Card & Schwartz, 2009; Espelage, Holt, & Henkel, 2003; Faris & Felmlee, 2011; Hawley, 1999; Poteat, Espelage, & Green, 2007; Salmivalli et al., 1997; Xu, Farver, Schwartz, & Chang, 2004). More broadly, aggressor-victim relationships are situated

within an ecology that can be considered at all levels of Bronfenbrenner's (1979; Bronfenbrenner & Crouter, 1983) model: microsystems, such as the peer networks described; mesosystems, such as potential relationships among parents of aggressors and victims; exosystems, such as community activities that promote interactions in diverse situations; to macrosystems, such as media images of interactions among enemies. Consistent with the transactional approach of Bronfenbrenner's model, it is expectable that aggressor-victim relationships could both influence and be influenced by each of these levels. Extensive work in disciplines outside of psychology, such as sociology and communication to name just two, supports the importance of considering each of these levels. The arguments for consideration of aggressor-victim relationships are, again, intended to *supplement* rather than *supplant* these foci.

Implications of a Relationship Perspective

Acknowledging that a focus on aggressor-victim relationships does not exclude other levels of consideration, it is also worth considering the ways that this relationship focus is generative in suggesting future theoretical, empirical, and intervention efforts. Possible future efforts in each of these areas are described next.

Theoretical implications

In this paper, social cognitive theory and interdependence theory were integrated to explain aggressor-victim relationships. Although these two theories are readily and usefully integrated, they are not the only possibilities. For example, biological and evolutionary theories, which are traditionally person-oriented, have more recently emphasized the plasticity of genetic expression depending on environmental conditions (Dodge & Sherrill, 2007; Ellis & Boyce, 2008). Given the modern emphasis on plasticity, rather than contextually-invariant determinism, it is plausible that apparent biological predispositions toward aggression would be more adaptive if expressed under specific situations (Rudolph, Troop-Gordon, & Granger, 2010), such as in interactions with specific types of peers. Of course, many other theoretical perspectives could be considered.

Empirical implications

A relationship perspective also changes approaches to empirically investigating antecedents and consequences of aggression in several ways. First, this perspective shifts the search for risk factors away from individual differences in one child or the other, but instead toward the combination of characteristics possessed by aggressors and their victims. For instance, the power differential that likely exists in many aggressor-victim relationships necessarily considers the characteristics of two individuals relative to one another. Furthermore, risk factors that emerge only with relationship consideration should be a focus for future research; for instance, antipathetic relationships are affective contexts in which aggressor-victim relationships are especially likely to occur (Card & Hodges, 2007). A focus on aggressor-victim relationships also shapes consideration of the consequences of aggression and victimization. In the simplest way, consideration of individual differences in the frequency of aggression or victimization can be complemented by investigating whether the number of targets for victimization or sources of aggression adds to the prediction of

maladjustment. More importantly, it is possible to investigate whether the characteristics of the victim predict outcomes for the aggressor, and vice versa, as well as whether associated relationship features, such as friendship versus mutual antipathy, impact the consequences of aggression involvement. A focus on aggressor-victim relationships also serves as a fundamental building block for investigating patterns of aggression within the larger network, such as whether aggressor-victim relationships more often exist within or between friendship networks.

Intervention implications

Finally, a relationship perspective prompts consideration of whether relationship-focused interventions involving both the aggressor and victim might be feasible. For instance, coalition building strategies such as engagement in cooperative activities and conflict management strategies such as helping both parties negotiate peaceful coexistence, which involve both the aggressor and victim, might be useful in resolving these relationships. It merits emphasis that these interventions for aggressor-victim relationships have not been empirically evaluated, yet they remain possible alternatives to consider. This consideration of aggressor-victim relationships for intervention efforts offers hope for more effective strategies than have been thus far obtained with traditional approaches (see Merrell, Gueldner, Ross, & Isava, 2008; Smith, Schneider, Smith, & Ananiadou, 2004).

Conclusions

A focus on aggressor-victim relationships is justified on both conceptual and empirical grounds, yet has received little empirical or theoretical consideration. This paper attempts to advance consideration of aggressor-victim relationships by integrating social cognitive and interdependence theories to provide a new, interdependent social cognitive theory for considering aggressor-victim relationships. This perspective offers much promise in extending theoretical, empirical, and applied understanding the problem of aggression among schoolchildren.

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Figure 1.

A Potential Model of the Emergence of Aggressor-Victim Relationships

Note: The relative thicknesses of arrows represent the relative likelihood of pathways. Note that this representation of victims' responses only includes two of a wide variety of potential responses (see Footnote 1).