Abstract

Elementary school children’s moral reasoning concerning physical and relational aggression was explored. Fourth and fifth graders rated physical aggression as more wrong and harmful than relational aggression but tended to adopt a moral orientation about both forms of aggression. Gender differences in moral judgments of aggression were observed, with girls rating physical and relational aggression as more wrong and relational aggression as more harmful than boys. In addition, girls were more likely to adopt a moral orientation when judging physical and relational aggression and girls more often judged relational aggression than physical aggression from the moral domain. Finally, moral reasoning about aggression was associated with physically and relationally aggressive behavior. Considered together, the results indicate that children tend to adopt a moral orientation about aggression, but that they nonetheless differentiate between physical and relational aggression in their moral judgments.

Keywords: moral reasoning; aggression; gender

A substantial body of research in developmental psychology has demonstrated that children’s social information processing relates to aggressive behavior (for a review see Crick & Dodge, 1994). Although the social information-processing approach has provided a number of important insights about children’s engagement in aggression, aggression scholars have recently proposed that researchers should explore whether children’s values and moral understanding are associated with aggressive conduct (Arsenio & Lemersise, 2001, 2004; Guerra, Nucci & Huesmann, 1994). To date, few studies have examined elementary schoolchildren’s moral reasoning about physical versus relational aggression or investigated the relation of such judgments to children’s involvement in aggressive conduct. The purpose of the present study was to address these limitations in the extant literature by (1) investigating children’s moral reasoning about physical versus relational aggression, (2) exploring gender differences in moral reasoning and (3) examining the association between moral reasoning about aggression and aggressive conduct.
One potentially important factor in the etiology of aggression is children’s social cognition about aggressive behavior (Crick & Dodge, 1994; Dodge, 1980). Indeed, from a social information-processing perspective, children’s decisions to behave aggressively result, at least in part, from their processing of social cues in the environment and decision-making processes (Crick & Dodge, 1994). Research from this tradition has provided substantial evidence suggesting that aggressive children have unique patterns of information processing. For example, aggressive children are more likely than their peers to interpret social cues hostilely, to generate aggressive responses, to adopt instrumental rather than relational goals and to evaluate aggressive responses in a relatively positive manner (Crick, 1995; Crick & Dodge, 1994, 1996; Crick, Grotputer & Bigbee, 2002; Dodge, 1980; Dodge et al. 2003; Schwartz et al., 1998).

Most social information-processing studies, however, do not explore children’s conceptions of aggression as morally wrong or harmful (Arsenio & Lemerise, 2001; although see Manning & Bear, 2002). Researchers have recently proposed that the types of aggressive patterns typically examined from the social information-processing perspective should also be explored using theories developed to investigate children’s moral reasoning (Arsenio & Lemerise, 2004). Morality involves one’s capacity to distinguish behaviors that are right and wrong (Quinn, Houts & Graesser, 1994) and moral reasoning entails the thinking processes employed when deciding whether a behavior is morally acceptable (Shaffer, 2000). The first goal of the present article was to examine children’s moral reasoning about different forms of aggression.

Three aspects of children’s moral reasoning about aggression were assessed. Firstly, children’s appraisal of aggression as moral (i.e., right or wrong) was investigated. Secondly, given the harmful consequences associated with aggressive conduct (see Crick et al., 1999), children’s tendency to identify aggressive conduct as harmful was examined. Finally, we explored children’s tendency to emphasize morality versus aspects such as social acceptability when judging aggressive conduct (Nucci, Guerra & Lee, 1991). An integral component of moral judgment is children’s justifications as to why the behavior is wrong (e.g., if it is a matter of hurting others or a matter of breaking rules; Guerra et al., 1994). According to this perspective, reasoning about social issues is organized into four categories of social understanding, with these domains developing independently of one another (Helwig, Tisak & Turiel, 1990; Smetana, 1982; Turiel, 1983, 1998). The first category is termed morality, and it consists of issues of fairness and human welfare. Questions are considered to be within the moral domain when the behaviors are believed to have inherent effects on the welfare of others (e.g., stealing).

In contrast, questions are viewed in terms of the social convention domain when the appropriateness of the behavior is determined by the societal context (e.g., governed by social norms used to uphold social structure and order, such as calling a teacher ‘Ms. Jones’ as opposed to ‘Nancy’). Behaviors are judged to be within the personal domain when they are viewed as issues of privacy or actions that are relevant to the self (e.g., dealing with how a person chooses to dress; Nucci 1981, 1996). Finally, behaviors are viewed as being within the prudential domain when they are believed to consist of personal actions that are harmful to the self (e.g., drug or alcohol use; Tisak & Turiel, 1984). According to Guerra et al. (1994), decisions about behavior vary as a function of the category being invoked, and an individual may approach a question about a particular behavior from any of the four perspectives. Although children as young as three years of age show evidence of understanding the difference between various domains, this understanding becomes increasingly solidified through the age of nine or 10 (Tisak & Turiel, 1988; Turiel, 1998). Thus, we chose this developmental period to...
examine children’s tendency to emphasize morality versus aspects such as social acceptability when reasoning about whether aggression is right or wrong (Nucci et al., 1991). Overall, then, we examined the degree to which children’s judge aggressive conduct wrong, their beliefs that aggression results in harm for the victim and their tendencies to place aggressive behavior in the moral domain.

We expected that children would make different moral judgments about different forms of aggressive conduct. For example, we hypothesized that children would think differently about physical and relational forms of aggression. Whereas physical aggression involves harm to one’s physical well-being (e.g., hitting, kicking, punching), relational aggression includes relationship damage such as the disruption of friendships or feelings of exclusion (e.g., ignoring a peer when you are mad at them; Bjorkqvist, Lagerspetz & Kaukianen, 1992; Crick & Grot Peter, 1995; Crick et al., 1999; Galen & Underwood, 1997). To date, little work has examined children’s moral reasoning about relationally aggressive conduct or has compared children’s conceptions of physical versus relational aggression (Killen & Stangor, 2001).

Although both these forms of aggression involve efforts to hurt or harm others, children may be socialized to judge them differently. A number of researchers and theorists have identified the importance of socialization and cultural influences on children’s moral judgments of social behavior (Coles, 1997; Dunn, Cutting & Demetriou, 2000; Gilligan, 1982; Skoe et al. 1999; Turiel, 1998; Walker, Hennig & Krettenauer, 2000) and evidence suggests that social norms dictate that physical aggression is particularly serious, wrong and harmful (Boulton, 1997; Craig, Henderson & Murphy, 2000; Galen & Underwood, 1997). For example, in one study, teachers reported that physically aggressive behaviors were more serious and more often warranted intervention than other forms of aggression (Craig et al., 2000). Given this cultural emphasis on the seriousness of physical aggression, children may adopt differing views of the wrongness and harmfulness of physical versus relational aggression.

To date, little work has examined children’s differing judgments of physical and relational aggression. However, some evidence indicates that children may judge distinct forms of hostile behavior differently. For example, research indicates that preschoolers tend to believe that physical aggression is more wrong and harmful than behavior such as teasing (Goldstein, Tisak & Boxer, 2002; Smetana, Campione-Barr & Yell, 2003; Smetana et al., 1999). Moreover, although evidence suggests that elementary school children have some comprehension that relational aggression is detrimental to its victims (Crick, 1995; Crick, Bigbee & Howes, 1996; Galen & Underwood, 1997), it is possible that children attribute different levels of harm to relational aggression relative to physical aggression. For instance, children may believe that relational aggression is less harmful to its targets than physical aggression because relational aggression is relatively covert (Crick & Zahn-Waxler, 2003). Based on this evidence, we hypothesized that elementary school children would be more focused on the harmfulness and wrongness of physical aggression than relational aggression.

In addition, little work has explored children’s domain placement of physical versus relational aggression. Despite differing views of physical and relational aggression as wrong and harmful, we predicted that children would tend to view both physical and relational aggression from within the moral domain rather than the social conventional, personal, or prudential domain. That is, we hypothesized that children would justify their beliefs that physical and relational aggressions were wrong based on the harm that results from engagement in such conduct. Consistent with this approach, previous
research has typically included injurious behavior such as physically aggressive acts, teasing and name-calling in the moral violations domain (Nucci, 1981; Smetana et al., 1999; Turiel, 1998). However, to date, no work has examined children’s tendency to judge relational aggression from the moral domain. By definition, relational aggression involves hurtful behavior (Crick et al., 1999) and elementary school children appear to be cognizant of the damage that results from participation in relational aggression (Crick, 1995; Crick et al., 1996; Galen & Underwood, 1997). Based on these findings, it was expected that children would classify both relational aggression and physical aggression within the moral domain and judge it as wrong insofar as it harms others.

The second goal of the present article was to examine gender differences in children’s moral reasoning about aggression. Boys and girls may differ in their views of aggression for a number of reasons. For example, gender role socialization may make girls more likely than boys to believe that aggression is wrong and harmful. Specifically, the relative interpersonal orientation of girls (Crick & Zahn-Waxler, 2003; Cross & Madsen, 1997; Dunn et al., 2000), the emphasis on caring for the traditional female gender role (Eagly & Crowley, 1986) and negative reactions to girls’ involvement in overtly aggressive conduct (Pepler & Craig, 2005; Verlaan, 2005; Xie, Cairns & Cairns, 2005) may lead girls, more so than boys, to attend to the moral implications of aggression. In contrast, the relative focus on physical play and instrumentality among boys (Crick & Zahn-Waxler, 2003; Maccoby, 2004) may lead boys to believe that aggression is relatively acceptable. Indeed, physical aggression may be considered a normative extension of rough-and-tumble play in the sex-segregated peer groups of elementary school boys (Pepler & Craig, 2005). Thus, girls may more often judge aggression from the moral domain, more closely attend to the harm that results from aggressive behaviors and believe that such conduct is wrong.

Consistent with this approach, evidence suggests that males and females differ in their moral reasoning in general. Specifically, females exhibit increased attention to issues of care and interpersonal matters in their moral judgments (Dunn et al., 2000; Garmon, Basinger, Gregg & Gibbs, 1996; Gilligan, 1982; Noddings, 1984; Wark & Krebs, 1996), although these gender differences tend to be relatively small in size (Jaffee & Hyde, 2000). Moreover, some evidence suggests that boys and girls differ in their moral judgments of different forms of aggression. Specifically, boys are less likely than girls to believe that physically aggressive behavior and relationally aggressive behavior is bad or wrong (Deluty, 1983; Goldstein et al., 2002; Huesmann & Guerra, 1997; Huesmann, Guerra, Zelli & Miller, 1992; Killen & Stangor, 2001; Zelli et al., 1999). In addition, women are more likely than men to believe that victims of physical and psychological (e.g., name-calling) aggression suffer and experience sadness (Eagly & Steffen, 1986; Slaby & Guerra, 1988; Smetana et al., 1999). Overall, then, we expected that girls would be more likely than boys to identify both physically and relationally aggression as a moral issue and to judge such conduct as wrong and harmful.

Moreover, gender differences in moral judgments of aggression may be especially pronounced about relational aggression. By definition, relational aggression involves disruption of interpersonal relationships and a number of researchers have proposed that females are especially sensitive to such experiences (e.g., Crick & Zahn-Waxler, 2003; Leadbeater, Kuperminc, Blatt & Hertzog, 1999; Rudolph, 2002). For example, girls tend to report that interpersonal stress and provocations (e.g., being excluded) are more stressful, hurtful, and emotionally upsetting more than boys do (Crick, 1995; Crick et al., 2002; Galen & Underwood, 1997; Nelson & Crick, 1999; Rudolph, 2002).
In addition, the relationship contexts of boys and girls are distinctive during the elementary school years; girls tend to be involved in intimate friendships with a few close peers whereas boys tend to participate in larger friendship groups (Maccoby, 1990; Parker & Asher, 1993; Pepler, Craig & Roberts, 1995). This may make girls especially aware of the moral consequences of relationship manipulation.

Furthermore, girls’ relative involvement in relational aggression may make them particularly sensitive of the moral implications of these types of behaviors. Indeed, although some findings are mixed (Henington, Hughes, Cavell & Thompson, 1998; Tomada & Schneider, 1997), most research suggests that females are more likely to be the perpetrators and victims of relationally aggressive behavior (for a review see Crick et al., 1999; Crick, Ostrov, Appleyard, Jansen & Casas, 2004; Hart, Nelson, Robinson, Olsen & McNeilly-Choque, 1998; Hawley, 2003; Rys & Bear, 1997; Xie, Farmer & Cairns, 2003). Given the relatively high frequency of relational aggression among girls, the moral consequences of such conduct may be especially salient among girls. For example, girls may be more likely than boys to witness the harm resulting from such conduct. In other words, given the social structure of girls’ relationships, their sensitivity to interpersonal slights and their heightened involvement in relational aggression and relational victimization, gender differences in children’s moral reasoning about aggression may be most pronounced for relationally aggressive conduct.

Finally, the third goal of this article was to explore whether children’s moral judgments of physical and relational aggression were associated with their involvement in such behavior. Initial evidence suggests that children’s beliefs about the appropriateness and harmfulness of aggression are associated with their engagement in aggressive behavior. Indeed, children who identify physically aggressive behavior as wrong and harmful have been shown to be less likely than their peers to behave aggressively (Bandura, Barbaranelli, Caprara & Pastorelli, 1996; Bentley & Li, 1995; Huesmann & Guerra, 1997; Slaby & Guerra, 1988; Zelli, Dodge, Lochman & Laird, 1999). Additionally, intervention research indicates that reductions in adolescents’ endorsement of the appropriateness of physically aggressive behavior were associated with a decrease in their use of aggressive strategies (Guerra & Slaby, 1990). Thus, initial evidence indicates that aggressive children may be less likely than their nonaggressive peers to believe that aggressive behavior is wrong or harmful.

In addition, research indicates that individual differences in moral orientation (i.e., considering an issue from the moral, social conventional, personal, or prudential domain) are associated in meaningful ways with social behavior. For instance, Nucci et al. (1991) demonstrated that adolescents who engaged in frequent drug use were more likely to view substance abuse as being within the personal instead of the moral domain. Similarly, Guerra et al. (1994), when examining how individuals categorize prototypically moral, conventional, personal and prudential matters, found that self-reported delinquents viewed the moral items as questions of personal choice rather than moral issues. These studies suggest that moral orientation may be an important predictor of children’s behavior.

In sum, the present study was developed to address three objectives. The first objective was to assess whether children’s moral judgments of aggression differed for relational and physical aggression. In particular, we hypothesized that children would rate physical aggression as more wrong and harmful than relational aggression, but that children would tend to view both forms of aggression as moral issues. The second objective was to explore gender differences in children’s moral reasoning about physical and relational aggression. We predicted that girls would be more likely than boys to
identify aggressive behavior as harmful and wrong and to approach questions of aggression from a moral orientation. Moreover, we expected gender differences in children’s moral reasoning about aggression to be most pronounced for judgments of relational aggression. The third objective was to explore whether children’s moral judgments of physical and relational aggression were associated with their involvement in such behavior. We hypothesized that aggressive children would be less likely than their peers to believe that aggression was wrong, harmful, or a moral issue. Finally, although specific developmental effects were not predicted in the present study given the similar social experiences and friendship structures of fourth and fifth graders, exploratory analyses included grade as a factor to examine potential developmental differences in participants’ moral reasoning about aggression.

To address the goals of the present article, a relatively large and diverse sample of fourth- and fifth-grade students was targeted. The participants were presented with a questionnaire about their moral reasoning about physical and relational aggression. In addition, this study included measures of children’s beliefs about the harm caused by aggressive behavior and the wrongness of such conduct. Finally, this study assessed the children’s actual engagement in aggression via peer and teacher reports so that the association between moral reasoning and aggressive behavior could be explored.

Method

Participants

The participants were part of a larger study that examines the relation between aggression and adjustment. A total of 639 (336 girls) fourth and fifth graders were recruited from elementary schools in a large midwestern city during the fall of their school year. All students in participating classrooms were invited to participate. A trained research assistant provided a 10-minute presentation to each participating class describing the study in age-appropriate terms and answering student questions. Consent letters were then sent home with the students; students with parental consent and who provided assent participated in the present study.

The sample included 51 percent fourth graders and 49 percent fifth graders. Thirty-four percent of the sample were African–American, 27 percent were European–American, 14 percent were Latino, 12 percent were Hmong, 4 percent were Asian, 3 percent were Native American and 6 percent represented other ethnic groups. The socioeconomic status of the sample was estimated to be lower class to middle class, based on school demographic information. Each participant had parental consent and child assent to participate; the average parental consent rate was 71 percent of all students in participating classrooms.

Procedure

Assessments of children’s moral reasoning about aggression were conducted in the fall of the school year during class-wide administrations. Each item was read aloud to the class by a trained research assistant and participants were offered the opportunity to clarify any questions at this time. In a separate session approximately two weeks later, the participants completed a peer nomination procedure so that peer reports of aggression could be assessed. Finally, the teachers completed an instrument of the children’s aggressive conduct. The teachers and participants completed the research instruments
approximately two to four months into the school year so that the teachers and students had the opportunity to get to know each other before completing the measures.

Given the sensitive nature of the questions asked, a number of efforts were made to protect the participants. For example, the participating children were assured that their responses would not be shared with anyone, that they did not have to answer any questions that they do not wish to and that they were free to terminate participation at any time. The teachers were instructed to keep their answers confidential. Only the personnel involved in the project had access to the data obtained, and identification numbers, rather than names, were used to organize, code and analyze the data obtained. Following data collection, a newsletter with the general goals of the study and the preliminary findings was provided to the teachers, parents and participants.

Moral Reasoning

To explore the children’s moral judgments of physical and relational aggression, participants were administered the moral reasoning about aggression (MRA) measure. The MRA was developed for the purpose of this study and was adapted from an instrument used in previous work to investigate adolescents’ judgments of drug use (Nucci et al., 1991). The MRA included three physical aggression scenarios (e.g., hitting a peer) and three relational aggression scenarios (e.g., excluding a peer from your group of friends when you are mad at them). The scenarios were selected to be representative of physically and relationally aggressive conduct and were based on behavior described in a traditional peer nomination measure as depicting physical and relational aggression (Crick & Grotpeter, 1995).

For each scenario, the participants provided three moral judgments of it: (1) how wrong the behavior was; (2) how often the conduct resulted in harm and (3) the domain used to judge the behavior (i.e., moral, social conventional, personal, or prudential). The participants first rated the wrongness of engaging in the aggressive behaviors described using a five-point Likert scale ranging from 1 (not wrong at all) to 5 (extremely wrong). The scores were summed across the three physical and the three relational aggression scenarios to yield wrongness ratings for physical and relational aggression, respectively. Cronbach’s alpha for ratings of the wrongness of aggressive behaviors were $\alpha = .81$ for physical aggression and $\alpha = .77$ for relational aggression.

Secondly, the participants’ beliefs about the harm caused to the victim of aggressive acts were assessed. The participants rated how often it would hurt the victim subjected to physically aggressive and relationally aggressive behavior on a five-point Likert scale ranging from 1 (never) to 5 (always). The scores were summed across the three physical and the three relational aggression scenarios to yield harmfulness ratings for physical and relational aggression, respectively. Cronbach’s alpha for ratings of the harmfulness of the aggressive behaviors were $\alpha = .77$ for physical aggression and $\alpha = .75$ for relational aggression.

Thirdly, to assess the participants’ domain placement of aggression (i.e., moral, conventional, personal, or prudential), the participants were presented with each aggressive behavior (e.g., hitting others) and asked how they would view the behavior if there were no rule against it (adapted from Nucci et al., 1991). For example, concerning the moral status of hitting others, participants were asked: ‘If there were no rule against hitting others, it would be: (a) OK, because there is no rule against doing it (social convention); (b) OK, whether there is a rule or not, because it is up to you if you hit other people (personal); (c) wrong, because the kid might hit you back and hurt
The participants were asked to choose which statement most closely corresponded to their personal opinion about the behavior (see the Appendix A for a complete list of MRA questions). Thus, for each scenario, participants chose the moral, social conventional, personal, or prudential domain as reflecting their moral reasoning about the behavior.

Participants were classified as judging aggressive behaviors from a given domain if they judged at least two of the three aggression items in a manner consistent with that domain. It was possible to categorize the vast majority of the sample with complete data according to these criteria: 97 percent of the sample was classifiable as utilizing a particular domain with respect to the physical aggression items and 96 percent of the sample was classifiable as consistently utilizing one moral orientation in response to relational aggression items (i.e., they chose the same domain in at least two of the three items). Participants who did not reach the classification criteria were not included in subsequent analyses about domain orientation.

To assess the internal consistency of the participants’ domain placement of the physical and relational aggression, participants’ responses were coded as ‘1’ when they used a given domain and ‘0’ when they did not. Cronbach’s alphas pertaining to physical aggression items were $\alpha = .78$ for social convention, $\alpha = .78$ for personal, $\alpha = .71$ for prudential, and $\alpha = .81$ for moral domain use. Cronbach’s alphas for category use about relational aggression items were as follows: $\alpha = .77$ for social convention domain use, $\alpha = .81$ for personal category use, $\alpha = .65$ for prudential category use and $\alpha = .85$ for moral category use.

**Aggression**

The children’s physically and relationally aggressive behaviors were assessed using a multi-informant approach, given the limitations of many single measures of aggressive conduct (Xie et al., 2005). The first measure of the children’s aggression was a teacher-report instrument developed in previous research (Crick, 1996). Teachers were provided with statements about physically aggressive (four items; e.g., ‘This child hits or kicks peers’), relationally aggressive (five items; e.g., ‘When mad at a peer, this child ignores the peer or stops talking to the peer’), and prosocial (four items, positively-toned filler items) behaviors and asked to rate how true each statement was of the target child on a scale from 1 (never true) to 5 (almost always true). The items were summed, yielding overall physical and relational aggression scores. Evidence for the validity of this measure has been demonstrated in previous research (Crick, 1996). Cronbach’s alpha demonstrated high reliability of the measures for this sample, with $\alpha = .95$ for physical aggression and $\alpha = .94$ for relational aggression.

In an additional assessment of children’s aggressive conduct, the participating children completed peer reports of aggression. All participating children with informed parental consent and who had provided assent participated in a classroom-administered assessment period. In the assessment session, the children’s social behavior scale-peer report (CSBS-P) was used to assess the children’s physical and relational aggression (Crick, 1997). The participating children were provided with a class roster and a trained research assistant read aloud three items describing physically aggressive behaviors (e.g., ‘children who hit, kick, or punch others’) and five items describing relationally aggressive behaviors (e.g., ‘people who let their friends know that they will stop liking them unless the friends do what they want them to do’). The
participants were asked to select up to three male or female students in the class who fit the description of each item (Crick et al., 1999). The number of nominations each participant received for the physical and relational aggression items, respectively, were standardized within a classroom and then summed. The internal reliability, test–retest reliability, factor structure and validity of both the physical and relational aggression subscales of the CSBS-P have been established in prior research (e.g., Crick et al., 1999; Crick, 1996, 1997). In the present study, peer and teacher reports of aggression were moderately correlated ($r = .50, p < .001$ for relational aggression and $r = .60, p < .001$ for physical aggression).

Results

Children’s Moral Reasoning about Physical Versus Relational Aggression

The first goal of the present study was to examine whether the children differed in their moral judgments (i.e., wrongness ratings, harmfulness ratings and domain placement) of physical versus relational aggression. We predicted that children would view physical aggression as more wrong and harmful than relational aggression, but would tend to view both forms of aggression from the moral domain. To assess whether the children’s judgments of the wrongness and harmfulness of aggressive behavior differed according to the type of aggression under examination, a mixed ANOVA with the aggression type as the repeated measure was performed on judgments of the wrongness and harmfulness of aggression, respectively. These analyses revealed a significant main effect for aggression type, with children judging physically aggressive behavior ($M = 12.07, SD = 3.35$, scale range $= 3–15$) as more wrong than relationally aggressive behavior ($M = 11.42, SD = 3.53$), $F(1, 635) = 48.65, p < .001$. In addition, the children reported that physically aggressive behaviors were more likely to result in harm for the victims ($M = 10.81, SD = 3.54$, scale range $= 3–15$) than relationally aggressive behaviors ($M = 10.20, SD = 3.78$), $F(1, 635) = 32.55, p < .001$.

To examine whether children more often placed physical versus relational aggression in each moral domain, a marginal homogeneity test was run with the children’s domain placement of physical and relational aggression as social conventional, moral, personal, or prudential issues, respectively, serving as the test pair. The results indicated that the children differed in their domain placement of physical and relational aggression, $p < .01$. Follow-up McNemar analyses indicated that the children more often thought about physical aggression as a prudential issue than relational aggression, $\chi^2 = 8.78, p < .01$, and more frequently identified relational aggression as a moral issue than physical aggression, $\chi^2 = 9.01, p < .01$.

In addition to exploring differences in the children’s tendency to place physical versus relational aggression in each domain, we examined the children’s tendency to think about aggression as a moral (versus social convention, personal, or prudential) issue. We expected that the majority of children would judge both physical and relational aggression from the moral domain. To address this question, Chi-square analyses were conducted on children’s domain placement of relational and physical aggression, respectively. The results indicated that the children tended to place relational aggression, $\chi^2(3, N = 613) = 705.85, p < .001$, and physical aggression, $\chi^2(3, N = 623) = 556.95, p < .001$, in certain domains. Follow-up analyses revealed that the children more frequently used the moral domain about relationally aggressive behaviors than the social convention domain, $\chi^2(1, N = 491) = 301.88, p < .001$, the
personal domain, $\chi^2(1, N = 496) = 291.13, p < .001$, or the prudential domain, $\chi^2(1, N = 502) = 278.64, p < .001$. In addition, the children more frequently used the moral domain about physically aggressive behaviors than the social convention domain, $\chi^2(1, N = 469) = 262.69, p < .001$, the personal domain, $\chi^2(1, N = 474) = 252.57, p < .001$, or the prudential domain, $\chi^2(1, N = 500) = 204.80, p < .001$. The children were also more likely to identify physical aggression as a prudential issue than a social convention, $\chi^2(1, N = 149) = 6.45, p < .05$, or a personal concern, $\chi^2(1, N = 154) = 4.39, p < .05$. Thus, as expected, the children overwhelmingly identified both physical and relational aggression as moral issues.

**Gender Differences in Moral Reasoning about Aggression**

The second goal was to examine whether girls and boys differed in their moral reasoning about aggression. We predicted that girls would be more likely than boys to identify aggressive behavior as harmful and wrong and to approach questions of aggression from a moral orientation. Moreover, we expected gender differences in children’s moral reasoning about aggression to be most pronounced for judgments of relational aggression. To assess whether children’s judgments of the wrongness and harmfulness of aggressive behavior differed according to the type of aggression under examination or the gender and grade of the participant, two 2 (gender) $\times$ 2 (aggression type) $\times$ 2 (grade) mixed ANOVAs with aggression type as the repeated measure were performed on judgments of the wrongness and harmfulness of aggression, respectively (only findings not presented in previous analyses are presented here). The results indicated that girls believed that behaving in aggressive ways was more wrong ($M = 12.27, SD = 3.01$) than their male peers ($M = 11.16, SD = 3.38$), $F(1, 635) = 19.53, p < .001$. Figure 1 illustrates the children’s tendency to judge physical aggression as more wrong than relational aggression and the girls’ tendency to judge aggression as more wrong than the boys.

In addition, girls reported higher levels of harm resulting from aggressive behavior ($M = 10.89, SD = 3.32$) than boys ($M = 10.08, SD = 3.44$), $F(1, 635) = 9.01, p < .01$.

**Figure 1.** Boys’ and Girls’ Ratings of the Wrongness of Physical and Relational Aggression.

**Note:** Wrongness ratings of physical and relational aggression range from 3 to 15.
However, this effect was qualified by a significant gender × aggression type interaction, $F(1, 635) = 15.13, p < .001$. The results of follow-up simple effects ANOVAs, illustrated in Figure 2, indicated that while boys and girls did not differ in their judgments of the harmfulness of physically aggressive behavior, females ($M = 10.78, SD = 3.72$) were more likely than males ($M = 9.56, SD = 3.76$) to believe that relational aggression resulted in harm for the victim, $F(1, 637) = 16.76, p < .001$. Finally, fifth graders ($M = 12.03, SD = 2.94$) were more likely than fourth graders ($M = 11.48, SD = 3.48$) to report that aggression was wrong, $F(1, 635) = 4.49, p < .05$. Overall, as expected, girls were more likely than boys to identify aggression as wrong and harmful. Moreover, the gender difference in harmfulness ratings was evident for relational aggression only.

To explore gender differences in the children’s domain placement of physical versus relational aggression, marginal homogeneity tests were run separately by gender. The results revealed that girls, but not boys, differed in their domain placement of physical and relational aggression. As illustrated in Figure 3, girls more often judged relational aggression as a moral issue than physical aggression, $\chi^2 = 10.58, p < .01$, and more often cited physical aggression as a prudential issue than relational aggression, $\chi^2 = 12.60, p < .001$. In addition, analyses were run to explore gender differences in the children’s tendency to place each form of aggression in the moral domain versus the social conventional, personal, or prudential domains. Loglinear analyses, using backward elimination, explored the children’s tendency to favor a particular moral reasoning domain when judging physically and relationally aggressive behavior, respectively. Table 1 shows the percentage of fourth- and fifth-grade boys and girls who adopted each moral orientation in their judgments of aggression. To address the question of whether gender or grade interacts with domain placement to determine children’s domain placement of relational and physical aggression, respectively, both models included gender, grade, domain (social convention, personal, prudential, or moral) and the interaction among these three factors.

The results of the relational aggression analysis revealed that, consistent with previous analyses, domain placement exerted a significant effect on the observed cell

![Figure 2. Boys’ and Girls’ Ratings of the Barmfulness of Physical and Relational Aggression.](image)

*Note:* Harmfulness ratings of physical and relational aggression range from 3 to 15.
frequencies, $\chi^2(3, N = 613) = 582.91, p < .001$. However, as predicted, this effect was qualified by a significant gender $\times$ domain interaction, $\Delta \chi^2(3, N = 613) = 36.66, p < .001$. Follow-up analyses suggested that, as expected, girls were more likely than boys to use the moral domain when judging these items, $\chi^2(1, N = 438) = 17.68, p < .001$. In contrast, boys were more likely than girls to employ social conventional reasoning, $\chi^2(1, N = 53) = 9.98, p < .01$, and personal reasoning, $\chi^2(1, N = 58) = 6.90, p < .01$, about relationally aggressive behavior. Figure 3 illustrates the gender differences in the children’s domain placement of aggression. There were no significant effects of grade on the domain placement of relational aggression.

The results of the physical aggression analysis revealed that, consistent with previous analyses, domain placement exerted a significant effect on the observed cell frequencies, $\chi^2(3, N = 623) = 446.58, p < .001$. However, as predicted, these effects were qualified by a significant gender $\times$ domain interaction, $\Delta \chi^2(3, N = 623) = 29.47, p < .001$. Follow-up analyses suggested that, as predicted, girls were more likely than boys to use the moral domain when judging these items, $\chi^2(1, N = 410) = 11.28, p < .01$. In contrast, boys were more likely than girls to employ social conventional reasoning, $\chi^2(1, N = 59) = 14.25, p < .001$, and personal reasoning, $\chi^2(1, N = 64) = 4.00, p < .05$, about physically aggressive behavior. Figure 3 illustrates the gender differences in the children’s domain placement of physical aggression. There were no significant effects of grade on the domain placement of physical aggression.

Figure 3. Boys’ and Girls’ Domain Placement of Physical and Relational Aggression.
Overall, then, consistent with our predictions, girls were more likely than boys to believe that aggression was a moral issue. In addition, girls more frequently placed relational aggression than physical aggression in the moral domain.

Moral Reasoning and Aggressive Behavior

The third goal of the present article was to examine the relation between children’s moral reasoning about aggression and their involvement in aggressive conduct. We hypothesized that aggressive children would be less likely than their peers to believe that aggression was wrong, harmful, or a moral issue. Descriptive information about children’s physical and relational aggression is presented in Table 2. Regressions were conducted to assess the relation between the children’s ratings of the wrongness and harmfulness of aggression and their involvement in aggressive behavior. Given the moderate to high correlation between physical and relational aggression (\( r = .61, p < .001 \), for teacher reports, and \( r = .67, p < .001 \), for peer reports in the present study), some researchers have controlled for the nonfocal form of aggression (e.g., Crick, 1996). However, given that the present study explores a relatively new research area, such stringent analyses were not adopted.

In the first two regressions, gender (male = 1, female = 2), grade, ratings of the harmfulness of relational aggression and ratings of the wrongness of relational aggression served as the independent variables and the children’s teacher- and peer-reported relational aggression, respectively, served as the dependent variables. The significance of each predictor in the regressions is presented in Table 3. The results indicated that, as expected, children’s moral judgments of relational aggression were associated with their involvement in relationally aggressive conduct. Specifically, children who rated relational aggression as wrong were marginally less likely to be identified by peers as relationally aggressive. Interestingly, children’s ratings of the harmfulness of relational aggression were positively related to teacher- and peer-reported relationally aggressive behaviors. In addition, gender was associated with teacher-reported and marginally associated with peer-reported relational aggression, with girls exhibiting higher levels of relational aggression than boys. Finally, the fifth graders displayed heightened

<table>
<thead>
<tr>
<th>Aggression</th>
<th>Domain</th>
<th>Boys Grade 4</th>
<th>Grade 5</th>
<th>Girls Grade 4</th>
<th>Grade 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>Social convention</td>
<td>15.3 (23)</td>
<td>14.4 (21)</td>
<td>6.0 (10)</td>
<td>3.1 (5)</td>
</tr>
<tr>
<td></td>
<td>Personal</td>
<td>13.3 (20)</td>
<td>13.7 (20)</td>
<td>6.5 (11)</td>
<td>8.2 (13)</td>
</tr>
<tr>
<td></td>
<td>Prudential</td>
<td>12.7 (19)</td>
<td>15.1 (22)</td>
<td>14.9 (25)</td>
<td>15.1 (24)</td>
</tr>
<tr>
<td></td>
<td>Moral</td>
<td>58.7 (88)</td>
<td>56.8 (83)</td>
<td>72.6 (122)</td>
<td>73.6 (117)</td>
</tr>
<tr>
<td>Relational</td>
<td>Social convention</td>
<td>12.7 (19)</td>
<td>13.5 (19)</td>
<td>5.5 (9)</td>
<td>3.8 (6)</td>
</tr>
<tr>
<td></td>
<td>Personal</td>
<td>14.0 (21)</td>
<td>12.8 (18)</td>
<td>7.3 (12)</td>
<td>4.4 (7)</td>
</tr>
<tr>
<td></td>
<td>Prudential</td>
<td>12.7 (19)</td>
<td>14.2 (20)</td>
<td>7.9 (13)</td>
<td>7.6 (12)</td>
</tr>
<tr>
<td></td>
<td>Moral</td>
<td>60.7 (91)</td>
<td>59.6 (84)</td>
<td>79.3 (130)</td>
<td>84.2 (133)</td>
</tr>
</tbody>
</table>

Overall, then, consistent with our predictions, girls were more likely than boys to believe that aggression was a moral issue. In addition, girls more frequently placed relational aggression than physical aggression in the moral domain.
peer-reported relational aggression. Additional analyses (not shown) investigating the potential moderating role of gender and grade were not significant; as such, these interactions were not included in the final model.

In the second two regressions, gender, ratings of the harmfulness of physical aggression and ratings of the wrongness of physical aggression served as the independent variables and children’s teacher- and peer-reported physical aggression scores, respectively, served as the dependent variables. The results, presented in Table 3, indicated that the children’s ratings of the harmfulness of physical aggression were positively associated with their teacher- and peer-reported physically aggressive behavior. In addition, consistent with previous research, the children’s global ratings of the wrongness of physical aggression were negatively associated with their teacher- and peer-reported involvement in such conduct. Finally, boys were more likely to be identified as physically aggressive by their peers and the fifth-grade children exhibited heightened teacher- and peer-reported physical aggression relative to their fourth-grade counterparts. Additional analyses (not shown) investigating the potential moderating role of gender and grade were not significant; thus, these interactions were not included in the final model.

To explore the association between moral orientation and relationally aggressive behavior, a 2 (gender) × 2 (grade) × 4 (domain use in relational aggression scenarios) MANOVA was conducted with children’s teacher- and peer-reported relational aggression serving as the dependent variables. The results indicated that, as expected, the children’s domain placement of relational aggression was associated with their involvement in such conduct, \( F(6, 1194) = 2.26, p < .05 \). Univariate tests indicated that domain placement was related to peer-reported relational aggression, \( F(3, 597) = 3.85, p < .05 \), and marginally associated with teacher-reported relational aggression, \( F(3, 597) = 2.48, p < .06 \). However, follow-up Tukey post hoc tests for both teacher- and peer-reported relational aggression were nonsignificant. In addition,
Table 3. Gender, Wrongness Ratings, and Harmfulness Ratings Predicting Children’s Peer- and Teacher-Reported Relational and Physical Aggression

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Reporter</th>
<th>Predictor</th>
<th>β</th>
<th>t Value</th>
<th>Regression ΔF</th>
<th>Regression $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relational aggression</td>
<td>Teacher</td>
<td>Gender</td>
<td>.16***</td>
<td>4.21</td>
<td>10.19***</td>
<td>.06</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Grade</td>
<td>.06</td>
<td>1.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wrongness rating</td>
<td>-.05</td>
<td>-1.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Harmfulness rating</td>
<td>.18***</td>
<td>3.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer</td>
<td>Gender</td>
<td>.07†</td>
<td>1.70</td>
<td></td>
<td>3.13*</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>Grade</td>
<td>.08*</td>
<td>2.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wrongness rating</td>
<td>-.08†</td>
<td>-1.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Harmfulness rating</td>
<td>.11*</td>
<td>2.18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical aggression</td>
<td>Teacher</td>
<td>Gender</td>
<td>-.04</td>
<td>-1.08</td>
<td>3.19*</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>Grade</td>
<td>.07†</td>
<td>1.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wrongness rating</td>
<td>-.11*</td>
<td>-2.47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Harmfulness rating</td>
<td>.10*</td>
<td>2.27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer</td>
<td>Gender</td>
<td>-.24***</td>
<td>-6.23</td>
<td></td>
<td>17.38***</td>
<td>.10</td>
</tr>
<tr>
<td></td>
<td>Grade</td>
<td>.06†</td>
<td>1.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wrongness rating</td>
<td>-.18***</td>
<td>4.01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Harmfulness rating</td>
<td>.16***</td>
<td>3.56</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$. 

Moral Reasoning and Aggression

© Blackwell Publishing Ltd. 2006 Social Development, 15(3), 2006
gender was associated with children’s relational aggression, \( F(2, 596) = 6.29, p < .01 \). Follow-up univariate tests revealed that girls exhibited higher levels of teacher-reported, \( F(1, 597) = 10.83, p < .01 \), and peer-reported relational aggression, \( F(1, 597) = 7.20, p < .01 \) (see Table 2).

Finally, the multivariate gender \( \times \) domain interaction was significant, \( F(6, 1194) = 3.11, p < .01 \). Univariate tests indicated that domain interacted with gender in predicting both teacher-reported, \( F(3, 597) = 3.91, p < .01 \), and peer-reported, \( F(3, 597) = 3.83, p < .01 \), relational aggression. To further explore this interaction, simple effects analyses with moral orientation serving as the independent variable and relational aggression (teacher- and peer-reported, respectively) entered as the dependent variables were performed separately for boys and girls. The results indicated that moral orientation was associated with engagement in teacher-reported relational aggression, \( F(3, 322) = 2.68, p < .05 \), and peer-reported relational aggression, \( F(3, 322) = 4.60, p < .01 \), for girls only. Tukey post hoc tests revealed that girls adopting a social convention orientation about relational aggression exhibited heightened teacher-reported relational aggression relative to girls using a prudential orientation, and they displayed marginally more teacher-reported relational aggression than girls adopting a moral orientation, \( p < .09 \). Tukey post hoc tests of peer-reported relational aggression revealed that girls adopting a social convention orientation were more relationally aggressive than girls using the personal, prudential, or moral domains. The mean teacher- and peer-reported relational aggression, presented in Table 4, illustrates the heightened involvement in relational aggression among girls using the social conventional domain.

To explore the relation between the children’s moral orientation about physically aggressive behavior and their involvement in such conduct, a 2 (gender) \( \times \) 2 (grade) \( \times \) 4 (domain use about physical aggression scenarios) MANOVA was conducted with physical aggression scores serving as the dependent variables. As expected, the children’s domain placement of physical aggression was associated with their involvement in physically aggressive behavior, \( F(6, 1214) = 4.13, p < .001 \). Univariate tests indicated that domain placement was associated with both teacher-reported, \( F(3, 607) = 5.28, p < .01 \), and peer-reported physical aggression, \( F(3, 607) = 4.84, p < .01 \). Tukey post hoc tests revealed that children employing social conventional reasoning about physical aggression exhibited heightened teacher- and peer-reported physical aggression relative to their prudentially and morally minded peers (although note that the difference between social convention and prudential individuals in teacher-reported physical aggression only approached statistical significance, \( p < .07 \)). In addition, the results indicated a main effect of gender, \( F(2, 606) = 10.01, p < .001 \). Univariate tests revealed that boys were more likely than girls to be nominated by their peers as physically aggressive, \( F(1, 607) = 9.52, p < .01 \) (see Table 2).

Finally, multivariate tests revealed a significant gender \( \times \) domain interaction, \( F(6, 1214) = 2.34, p < .05 \). Univariate tests indicated that domain orientation and gender interacted in predicting teacher-reported physical aggression, \( F(3, 607) = 3.55, p < .05 \). Follow-up simple effects analyses with moral orientation serving as the independent variable and teacher-reported physical aggression entered as the dependent variable were performed separately for boys and girls. The results indicated that moral orientation was associated with physical aggression for girls only, \( F(3, 323) = 5.85, p < .01 \). Tukey post hoc tests revealed that girls adopting a social convention orientation were identified by teachers as more physically aggressive than their
Table 4. Mean Teacher-Reported and Peer-Reported Aggression Levels (and Standard Deviations) of Children Using Social Convention, Personal, Prudential, and the Moral Domain

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Reporter</th>
<th>Gender</th>
<th>Social Convention</th>
<th>Personal</th>
<th>Prudential</th>
<th>Moral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relational aggression</td>
<td>Teacher</td>
<td>Boys</td>
<td>8.37a (4.53)</td>
<td>7.91a (3.25)</td>
<td>9.54a (4.83)</td>
<td>7.80a (3.81)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Girls</td>
<td>13.00a (6.29)</td>
<td>9.89ab (5.29)</td>
<td>8.36b (4.33)</td>
<td>9.84ab (5.01)</td>
</tr>
<tr>
<td></td>
<td>Peer</td>
<td>Boys</td>
<td>-.43a (3.60)</td>
<td>-.64a (3.04)</td>
<td>.43a (3.68)</td>
<td>-.48a (3.64)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Girls</td>
<td>3.82a (4.69)</td>
<td>-.11b (3.84)</td>
<td>.14b (3.17)</td>
<td>-.04b (3.93)</td>
</tr>
<tr>
<td>Physical aggression</td>
<td>Teacher</td>
<td>Boys</td>
<td>6.27a (3.81)</td>
<td>5.97a (3.42)</td>
<td>6.06a (4.01)</td>
<td>5.80a (3.26)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Girls</td>
<td>8.87a (5.41)</td>
<td>5.46b (3.34)</td>
<td>5.11b (2.63)</td>
<td>5.47b (3.06)</td>
</tr>
<tr>
<td></td>
<td>Peer</td>
<td>Boys</td>
<td>1.20a (3.73)</td>
<td>.91a (2.77)</td>
<td>.08b (2.96)</td>
<td>.54b (3.02)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Girls</td>
<td>.78a (2.80)</td>
<td>.18a (3.36)</td>
<td>-1.12b (1.17)</td>
<td>-.93b (1.90)</td>
</tr>
</tbody>
</table>

Note: Means on the same line with a different subscript a, b, are different from one another at $p < .05$. 
peers with a personal, prudential, or moral orientation about physical aggression. The mean teacher- and peer-reported physical aggression for boys and girls using each domain to judge physically aggressive behavior is presented in Table 4.

Discussion

The first objective of this study was to explore whether elementary school children’s moral reasoning about aggression differed for physical versus relational aggression. The results of this study indicated that children overwhelmingly tend to approach both physical and relational aggression from a moral orientation rather than from a social convention, personal, or prudential domain. In other words, when considering aggressive behavior of either type, issues of fairness and human welfare were central to their judgments. Nonetheless, the children did differentiate between physical and relational aggression in their moral judgments. Specifically, the participants tended to assert that physically aggressive behavior were more wrong and more harmful than relationally aggressive behavior, but that relational aggression was more frequently a moral issue than was physical aggression. It appears, then, that, during the late elementary school years, children do differentiate between physical and relational aggression on some dimensions when making moral judgments of aggressive behavior.

Interestingly, the participants were more likely to identify prudential concerns (i.e., concern about how the behavior may result in personal harm) than matters of social convention violations (i.e., matters of violating social norms of rules) when assessing physical aggression and were more likely to judge physical than relational aggression as a prudential issue. This finding suggests that elementary school children might be particularly cognizant of the ways in which physically aggressive behaviors are harmful to themselves (e.g., via harm from a peer who may retaliate) and less focused on social norms opposing such conduct. These findings are consistent with the idea that at least some forms of relational aggression (particularly nonconfrontational forms) may be less likely than physical aggression to result in retaliation or punishment (Xie et al., 2005). This finding is important because it suggests that children of this age may not appreciate the extent of harm resulting from relational aggression, despite their acknowledgement that relational aggression is a moral issue. These cognitions may, in turn, place children at increased risk for involvement in relationally aggressive conduct.

The second objective of this study was to explore potential gender differences in children’s moral reasoning about physical and relational aggression. The results of this research suggest that, consistent with previous research (see Deluty, 1983; Huesmann & Guerra, 1997; Huesmann et al., 1992; Zelli et al., 1999), girls are more likely than boys to believe that aggression in general is wrong. This study extends prior work to include forms of aggression more salient for females, such as relational aggression. The finding that girls are more likely than boys to identify physical and relational aggression as wrong supports the contention that girls are more likely than boys to make care-based moral judgments (Garmon et al., 1996; Wark & Krebs, 1996) and is consistent with the idea that boys’ social groups tend to believe that physical aggression is relatively normative and appropriate (Pepler & Craig, 2005).

Consistent with our predictions, boys and girls also differed in their thinking concerning the harm resulting from aggression. For example, girls were more likely than boys to assert that relationally aggressive behaviors were harmful. The finding that gender differences emerged in ratings of the harmfulness of relational aggression is consistent with previous research (Galen & Underwood, 1997) and supports the idea
that girls may be particularly sensitive to the harm resulting from the disruption of interpersonal relationships (Crick, 1995). That girls and boys did not differ in their ratings of the harmfulness of physical aggression indicates a relatively gender-balanced awareness among children that aggressive behavior against others using physical means is harmful. It is possible that the emphasis often placed on the harmfulness of physically aggressive conduct by parents, educators and psychologists may ultimately result in awareness among children of both genders that such behavior is detrimental. In contrast, if relational aggression is not openly discouraged in the same manner, it may only be the children who are particularly sensitive to relational slights and provocations (i.e., girls) who comprehend the harmfulness of such conduct.

Moreover, gender was also associated with children’s moral orientation about both forms of aggression. Girls were more likely to adopt a moral orientation about physical and relational aggression. In addition, girls were more likely to judge relational aggression from the moral domain relative to physical aggression and to believe that physical aggression was more frequently a prudential issue than relational aggression. In contrast, boys were more likely than girls to identify both physical and relational aggression as a matter of social convention or personal choice. These findings suggest that, during the late elementary school years, girls are more likely than boys to focus on the harm that results from aggression in making moral judgments. Moreover, consistent with our predictions, girls are especially likely to recognize the moral implications of relationally aggressive conduct. These findings are consistent with research that suggests that girls are more likely to adopt an interpersonal orientation when approaching social experiences (Crick & Zahn-Waxler, 2003; Cross & Madsen, 1997). The relationship orientation of girls may focus their attention on the social implications of their own behavior, and such an emphasis on personal relationships may make the harm that results from aggressive behavior and the corresponding moral implications of such conduct particularly salient for girls.

The results of this study further indicate that children’s moral reasoning about aggression is associated with their involvement in such conduct. Consistent with previous research, children’s ratings of the wrongness of physically aggressive behavior were negatively associated with their teacher- and peer-reported involvement in such conduct. In addition, the positive association between wrongness ratings of relational aggression and peer-reported relational aggression approached significance. These results bolster the hypothesis that children’s judgments of aggression as wrong are important correlates of their actual behavior (Huesmann & Guerra, 1997).

Surprisingly, aggressive children were actually more likely than their peers to identify the harm associated with engagement in physically and relationally aggressive behavior. These results indicate that aggressive children may actually be acutely aware of the harm their behavior causes for others. In fact, this awareness might influence children’s beliefs that aggression is an effective strategy for attaining goals, which has been identified by researchers as an important component of children’s thinking about social problems (Crick & Dodge, 1994). In other words, those children who understand the potential harm resulting from aggression may be precisely the children who comprehend the power that their aggressive tactics may have over their peers. Indeed, researchers have recently argued that at least some aggressive children may have an enhanced perspective-taking ability and social understanding that allows them to use aggressive strategies effectively (Sutton, Smith & Swettenham, 1999; Xie et al., 2005). Although aggressive children may not have overall better perspective-taking skills than their nonaggressive or prosocial peers (see Crick & Dodge, 1999), the results of the
present study suggest that aggressive children are particularly cognizant of the potential harm resulting from aggression.

The results of the present study further indicate that, for girls, a social convention orientation about aggressive behavior is associated with increased participation in teacher- and peer-reported physically aggressive and relationally aggressive behavior. Thus, initial evidence suggests that girls who advocate the position that aggression is wrong only insofar as it is socially prohibited are at a particularly high risk for involvement in aggressive conduct. Interestingly, girls adopting a prudential orientation about aggressive behavior were no more likely to be identified as aggressive than participants assuming a moral orientation. Findings for girls judging aggression from the personal domain were mixed: on the one hand, these girls exhibited lower peer-reported relational aggression and teacher-reported physical aggression than their peers adopting a social convention orientation; on the other hand, girls who judged physical aggression from the personal domain were as likely as participants who adopted a social convention view to be identified as physically aggressive by peers.

Overall, then, it appears that a focus on social rules and regulations about aggression (and possibly personal choice), and not simply an absence of thinking about the harm caused to others by behaving aggressively (i.e., moral orientation), is associated with aggressive conduct. It is possible that children adopting a prudential orientation may avoid aggressive behavior to protect themselves from harm. Future research would benefit from the exploration of mechanisms that may underlie the protective factors involved in prudential and moral reasoning about aggression. Finally, it is important to note that the number of girls adopting a social conventional orientation was quite small in this sample (only about 5 percent of participating girls). In other words, although few girls seem to assume a social convention perspective about aggressive behaviors, the few who did were at particular risk for the development of aggressive conduct.

Consistent with the findings for girls, a moral orientation was association with peer-reported physical aggression in boys. Specifically, boys judging physical aggression from the social convention or personal domains were more likely to be identified by their peers as physically aggressive. In contrast, moral orientation was not an important predictor of relational aggression among boys. This gender difference was surprising, and its origin is at present unclear. Perhaps boys are less likely than girls to regard moral orientation as an important component in the decision to behave aggressively. Indeed, research suggests that children’s beliefs about the personal relevance of moral reasoning are an important moderator of the association between moral reasoning and moral behavior (Blasi & Oresick, 1986; Damon & Hart, 1988) and it has been proposed that females are more personally concerned than males with the interpersonal consequences of their behavior (Crick & Zahn-Waxler, 2003). As such, it is possible that boys are less likely than girls to regard moral orientation as a personally relevant factor in the decision to participate in aggressive conduct. Future research would benefit from an analysis of potentially moderating factors involved in this gender difference, including an assessment of whether girls are indeed more likely than boys to believe that moral judgments concerning aggression are essential to their self-understanding.

Although the findings of the present study provide interesting information about children’s moral reasoning about physical and relational aggression, a number of limitations must be acknowledged. Firstly, the present study focuses exclusively on the social cognitions among children in late elementary school. This developmental period...
was chosen based on evidence indicating that children's understanding of the distinctions among the social convention, personal, prudential, and moral domains becomes solidified around the age of nine or 10. In the present study, few developmental differences between fourth- and fifth-grade participants were found. One exception is that fifth graders were more likely to identify aggressive behavior as wrong. However, it is important to note that the proposed contributors to children's reasoning about physical and relational aggression (e.g., socialization practices and peer group norms) are very similar in these two groups. Thus, although this research useful as a first step, future research would benefit from an examination of potential developmental differences in children's moral reasoning about relational and physical aggression across different developmental periods (e.g., early childhood, late childhood and adolescence).

A second limitation of the present study is its cross-sectional design. Although the conceptual basis and interpretation of the present study emphasized how children's moral judgments may translate into aggressive behavior, it is also possible that aggressive children develop unique patterns of moral reasoning about aggression to justify their conduct. Indeed, some researchers have proposed that involvement in delinquent behavior may predict a shift from moral to nonmoral reasoning about that conduct in an effort to reduce cognitive dissonance (Leenders & Brugman, 2005). To tease apart cause and effect, longitudinal and experimental designs in which different causal models could be compared would be particularly useful.

A third limitation of this study is its reliance on questionnaire methods to assess children's moral reasoning about aggression. Although the utility of the questionnaire method employed in the present study has been demonstrated in previous research (e.g., Nucci et al., 1991), the scenarios used in the present study may not capture the full range of physically and relationally aggressive conduct. Thus, the moral judgments provided by the children may reflect the specific items assessed, rather than differing judgments of these forms of aggression. Additional research would benefit from the assessment of moral reasoning including children's judgments of a greater number of physically and relationally aggressive behaviors. Finally, future research exploring children's moral reasoning about physical and relational aggression would benefit from the inclusion of additional cognitive factors (e.g., language ability, working memory and perspective-taking) and social factors (e.g., socioeconomic status, race and gender role orientation) that evidence indicates play an important role in children's moral reasoning and aggressive conduct (Dunn & Hughes, 2001; Dunn et al., 2000; Krcmar & Cooke, 2001; Miller-Johnson, Moore, Underwood & Coie, 2005).

Despite its limitations, the findings of this study have important implications for interventions aimed at reducing children's involvement in aggressive behavior. For instance, this research suggests that simply alerting children to the harm that results from aggressive conduct may not be an effective strategy for interventions. In fact, this tactic could inform potentially aggressive children about the power and influence that aggressive approaches can generate. Instead, interventions should emphasize that participation in aggressive behavior is morally reprehensible, that the inappropriate aspects of aggression extend well beyond social conventions or norms and that judgments of aggressive behavior should include a concern for fairness and the welfare of others. In addition, the finding that children tend to view physical aggression as more wrong and harmful than relational aggression suggests that teachers and educators may benefit from an increased emphasis on the moral implications of such conduct. Finally, the gender differences in children's moral reasoning about aggression suggest that boys may benefit from an increased emphasis on interpersonal relationships and caring...
behavior. Overall, then, an increased understanding of when and why children believe
that aggression is morally wrong may allow researchers to intervene and reduce
children’s involvement in such conduct.

References
processes, and social competence. Social Development, 10, 59–73.
information processing and moral domain models. Child Development, 75, 987–1002.
disengagement in the exercise of moral agency. Journal of Personality and Social Psychology,
71, 364–374.
Bjorkqvist, K., Lagerspetz, K., & Kaukinen, A. (1992). Do girls manipulate and boys fight?
Developmental trends in regard to direct and indirect aggression. Aggressive Behavior, 18,
117–127.
& H. Zimiles (Eds.), Thought and emotion (pp. 147–165). Hillsdale NJ: Erlbaum.
Craig, W. M., Henderson, K., & Murphy, J. G. (2000). Prospective teachers’ attitudes toward
Crick, N. R. (1995). Relational aggression: The role of intent attributions, feelings of distress,
Crick, N. R. (1996). The role of overt aggression, relational aggression, and prosocial behavior
Crick, N. R. (1997). Engagement in gender normative versus non-normative forms of
aggression: Links to social-psychological adjustment. Developmental Psychology, 33, 610–
617.
Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social information-
Crick, N. R., & Dodge, K. A. (1996). Social information-processing mechanisms in reactive and
Crick, N. R., & Dodge, K. A. (1999). ‘Superiority’ is in the eye of the beholder: A comment on
742.
beliefs about aggression: How do I hurt thee? Let me count the ways. Child Development, 67,
1003–1014.
children’s intent attributions and feelings of distress for relational and instrumental peer
aggression in early childhood: ‘You can’t come to my birthday party unless....’ In M. Putallaz,
& K. Bierman (Eds.), Aggression, antisocial behavior, and violence among girls: A develop-
mental perspective (pp. 71–89). New York, NY: Guilford Press.
(Ed.), Nebraska symposium on motivation: Vol. 45. Gender and motivation (pp. 75–141).
Lincoln: University of Nebraska Press.


**Acknowledgments**

This research was supported by grants to the second author from NIMH (MH63684) and NSF (BCS-0126521) as well as the Eva O. Miller Fellowship to the first author. The authors gratefully thank the Minneapolis public school district and participating schools for their involvement in the study.

**Appendix A. What I Think about Things Kids Do**

We are interested in how kids think about different things that people do. For each question, think about how you feel about these things.

1) How wrong is it if you hit another kid at school?

<table>
<thead>
<tr>
<th></th>
<th>1 not at all wrong</th>
<th>2 a little wrong</th>
<th>3 somewhat wrong</th>
<th>4 very wrong</th>
<th>5 extremely wrong</th>
</tr>
</thead>
</table>

2) How often would it hurt the kid if you hit them?

<table>
<thead>
<tr>
<th></th>
<th>1 never</th>
<th>2 almost never</th>
<th>3 sometimes</th>
<th>4 almost always</th>
<th>5 always</th>
</tr>
</thead>
</table>

© Blackwell Publishing Ltd. 2006

Social Development, 15, 3, 2006
3) If there were no rules against hitting other kids, it would be:
   a) OK, because there is no rule against doing it.
   b) OK, whether there is a rule or not, because it’s up to you if you hit other people.
   c) Wrong, because the kid might hit you back and hurt you.
   d) Wrong, because it would hurt the kid if you hit them.

4) How wrong is it to tell a friend that you will stop liking them unless they do what you say?

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>not at all wrong</td>
<td>a little wrong</td>
<td>somewhat wrong</td>
<td>very wrong</td>
<td>extremely wrong</td>
</tr>
</tbody>
</table>

5) How often would it hurt your friend if you told them you would stop liking them unless they do what you say?

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>never</td>
<td>almost never</td>
<td>sometimes</td>
<td>almost always</td>
</tr>
</tbody>
</table>

6) If there were no rules against telling a friend that you will stop liking them unless they do what you say, it would be:
   a) OK, because there is no rule against doing it.
   b) OK, whether there is a rule or not, because it’s up to you if you tell your friends that.
   c) Wrong, because the friend might get back at you.
   d) Wrong, because it would hurt the friend’s feelings or make them sad.

7) How wrong is it if you push or shove another kid at school?

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>not at all wrong</td>
<td>a little wrong</td>
<td>somewhat wrong</td>
<td>very wrong</td>
<td>extremely wrong</td>
</tr>
</tbody>
</table>

8) How often would it hurt the kid if you pushed or shoved them?

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>never</td>
<td>almost never</td>
<td>sometimes</td>
<td>almost always</td>
</tr>
</tbody>
</table>

9) If there were no rules against pushing or shoving other kids, it would be:
   a) OK, because there is no rule against doing it.
   b) OK, whether there is a rule or not, because it’s up to you if you want to push or shove other people.
   c) Wrong, because the kid would push you back and hurt you.
   d) Wrong, because it would hurt the kid if you pushed or shoved them.
10) How wrong is it for you to tell lies about another kid so other people won’t like them?

<table>
<thead>
<tr>
<th></th>
<th>1 not at all wrong</th>
<th>2 a little wrong</th>
<th>3 somewhat wrong</th>
<th>4 very wrong</th>
<th>5 extremely wrong</th>
</tr>
</thead>
</table>

11) How often would it hurt the kid if you told lies about them?

<table>
<thead>
<tr>
<th></th>
<th>1 never</th>
<th>2 almost never</th>
<th>3 sometimes</th>
<th>4 almost always</th>
<th>5 always</th>
</tr>
</thead>
</table>

12) If there were no rules against telling lies about another kid so other people won’t like them, it would be:
   a) OK, because there is no rule against doing it.
   b) OK, whether there is a rule or not, because it’s up to you if you want to tell lies about other people.
   c) Wrong, because the kid would get back at you.
   d) Wrong, because it would hurt the kid’s feelings if you told lies about them.

13) How wrong is it if you start a physical fight with another kid?

<table>
<thead>
<tr>
<th></th>
<th>1 not at all wrong</th>
<th>2 a little wrong</th>
<th>3 somewhat wrong</th>
<th>4 very wrong</th>
<th>5 extremely wrong</th>
</tr>
</thead>
</table>

14) How often would it hurt the kid if you started a physical fight with them?

<table>
<thead>
<tr>
<th></th>
<th>1 never</th>
<th>2 almost never</th>
<th>3 sometimes</th>
<th>4 almost always</th>
<th>5 always</th>
</tr>
</thead>
</table>

15) If there were no rules against starting physical fights with other kids, it would be:
   a) OK, because there is no rule against doing it.
   b) OK, whether there is a rule or not, because it’s up to you if you start fights.
   c) Wrong, because you might get hurt in the fight.
   d) Wrong, because it would hurt the kid if you fought with them.

16) How wrong is it to keep another kid out of your group when you are mad at them?

<table>
<thead>
<tr>
<th></th>
<th>1 not at all wrong</th>
<th>2 a little wrong</th>
<th>3 somewhat wrong</th>
<th>4 very wrong</th>
<th>5 extremely wrong</th>
</tr>
</thead>
</table>

© Blackwell Publishing Ltd. 2006
Social Development, 15, 3, 2006
17) How often would it hurt the kid if you kept them out of your group?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>never</td>
<td>almost never</td>
<td>sometimes</td>
<td>almost always</td>
<td>always</td>
</tr>
</tbody>
</table>

18) If there were no rules against keeping kids out of your group, it would be:

a) OK, because there is no rule against doing it.
b) OK, whether there is a rule or not, because it’s up to you if you let kids be in your group.
c) Wrong, because the kid might get back at you by leaving you out.
d) Wrong, because it would hurt the kid’s feelings if you left them out.