Friendship and Aggressiveness as Determinants of Conflict Outcomes in Middle Childhood

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The attributions and responses of aggressive and nonaggressive boys to ambiguously intended actions of friends and nonfriends were examined. Thirty-seven aggressive and 37 nonaggressive third- and fifth-grade boys were presented with descriptions of encounters between peers in which one child experienced a negative outcome as the result of the ambiguously intended actions of another. Neither aggressive nor nonaggressive subjects were influenced by the presence or absence of friendship between themselves and the child whose behavior they were asked to interpret or respond to. Aggressive subjects attributed more hostile intent than nonaggressive subjects when the objectionable action was directed at themselves but not when directed at others. Both groups of subjects predicted less hostile responses by themselves than by others. Although a significant degree of consistency was found between subjects' attributions and responses, it was also true that most hostile responses were predicted following nonhostile attributions. This finding is inconsistent with an attributionally based explanation of hostile reactive behavior.

Conflict between peers is a fact of life throughout childhood. It occurs among children of both sexes, between friends and nonfriends alike, whenever "one person does something to which a second person objects" (Hay, 1984, p. 2). Defined in this way, conflict entails a dyadic exchange in which the actions of one child are met with opposition by another. The first child need not have intended to offend the second for conflict to arise. However, if offense is intended, but none is taken, no conflict can be said to exist. Thus, an oppositional or antagonistic response by the offended party is a defining feature of conflict (Shantz, 1987).

When a potential conflict situation occurs, a child's interpretation of that situation, particularly the intention that he or she attributes to the other child involved, has been shown to be important in determining the child's response (Darley, Klooson, & Zanna, 1978; Dodge, Pettit, McClaskey, & Brown, 1986; Mallick & McCandless, 1966; Rule, Nesdale, & McAra, 1974). If the child has a negative experience and believes that the other individual acted with hostile intent, then he or she is likely to respond with hostility. In contrast, if the child views the responsible peer as having acted benignly, a nonhostile response is more likely to result.

Several studies have shown that such attributions are, in turn, influenced by the reputations of the individuals whose behavior is being interpreted (Dodge, 1980; Dodge & Frame, 1982; Steinberg & Dodge, 1983). In these studies, children identified as peers as aggressive were more likely to have their behavior labeled as hostile than were nonaggressive children, even though the behavior being interpreted was the same.

Attribution of hostility to aggressive peers and the tendency to respond aggressively to hostilely intended actions may be moderated, however, by the relationship existing between the children. The rate at which conflicts occur and the ways in which conflicts are managed differ for friends and nonfriends (Hartup, Laursen, Stewart, & Eastenson, 1988), perhaps because behavior is interpreted differently depending on whether it is performed by a friend or by an acquaintance. Children may give "the benefit of the doubt" more often to friends than to nonfriends, consistent with Hymel's (1986) finding that children "vary their perceptions and explanations of the behavior of peers as a function of whether they like or dislike the individual" (p. 442). Alternatively, friendship between two children may inhibit hostile responses to objectionable behavior or increase the likelihood that the injured party will just "shrug off" the offense.

Conflict Outcomes in Middle Childhood

Previous studies have shown that aggressive children are, at times, biased in their interpretations of social events. They are more likely than nonaggressive children to attribute hostile intent to peers whose intentions are ambiguous (Aydin & Markova, 1979; Dodge, 1980; Steinberg & Dodge, 1983). Although this bias appears to be present only when aggressive children are asked to judge behavior directed toward themselves (Dodge & Frame, 1982), it is not known whether the bias appears in their interpretations of events involving a friend. In fact, little is known about the friendships of aggressive children, and whether they differ from those of nonaggressive peers.

To explore these questions about the roles of friendship and
aggressiveness in determining children's attributions and behaviors, we asked aggressive and nonaggressive third- and fifth-grade boys to interpret classmates' intentions and predict their own and others' responses in hypothetical potential conflict situations. Boys of differing ages were included in the sample in order to examine the generalizability of the results within middle childhood. Girls were not included because they were rarely nominated by their classmates as physically aggressive.

Subjects were presented with short descriptions of encounters between peers in which one child experienced a negative outcome as a result of the ambiguously intended actions of another. In some of these stories, the subjects themselves were depicted as the targets of the unpleasant events. In others, the targets were either their friends or aggressive or nonaggressive nonfriends. The identity of the actor or perpetrator of the ambiguously intended actions in these stories was also systematically varied to include the best friend of the subject as well as aggressive and nonaggressive nonfriends. For each story, subjects were asked to interpret the actor's intentions and to predict what the response of the target child (at times himself) would be. The different combinations of story participants made it possible to investigate how children's attributions and predicted responses were influenced by the identities of both the child who precipitated the potential conflict and the child who was the target of the offending action. Because these story participants varied in their social relationships with the subjects, as well as in their reputations for aggressiveness, the influence of these factors on behavior in potential conflict situations could be examined. The link between attributions of intent and predicted responses was also analyzed.

Method

Subjects

The subjects were 38 third-grade boys (9-year-olds) and 36 fifth-grade boys (11-year-olds) selected from four middle-class, suburban elementary schools. Half of the subjects from each grade were identified as aggressive children, and half, as nonaggressive children.

Following a procedure similar to that used by Dodge and Somberg (1987), selection of subjects was made on the basis of peer nominations and teacher ratings from among 302 third graders (in 12 classrooms) and 337 fifth graders (in 13 classrooms). Using alphabetical lists of participating classmates, children identified their best friends (as many as they wished) and three peers who fit each of three behavioral descriptions. One of these items asked the children to "Circle the names of three classmates who start fights and hit other children." The other two items described prosocial behavior. The children also rated how much they liked each of their classmates on a scale ranging from 1 (don't like) to 5 (like very much, as much as a best friend). A social preference score was calculated for each child by subtracting the number of ratings of 1 they received on this liking scale from the number of 4s and 5s. In addition, teachers completed the Teacher's Checklist of Peer Relationships (Dodge, 1986) for the boys in their classroom. This checklist consisted of a 6-item social competence scale and a 5-item aggression scale.

To be considered as a potential aggressive subject, a boy had to obtain a social preference score below the class mean, a teacher-rated social competence score below the class mean, and a teacher-rated aggression score above the class mean. From this pool, the 20 boys in each grade who had the highest peer nomination scores for starting fights and hitting other children (defined as the number of nominations received divided by the number of classmates making nominations) were selected as aggressive subjects. Twenty boys meeting the inverse of the criteria used to define the aggressive subjects were selected as nonaggressive subjects.

Of the 80 aggressive and nonaggressive subjects originally selected, 6 did not participate, either because of absences on days when data were collected or, for 2 subjects, because the purpose of the experiment was inadvertently disclosed by a teacher. The 37 aggressive and 33 nonaggressive subjects who participated differed significantly in peer nomination scores for aggression, F(1, 70) = 186.57, p < .001. Aggressive subjects received nominations for aggressive behavior from an average of 57% of their classmates (SD = .22); nonaggressive subjects received nominations from 4% of their classmates on average (SD = .07).

Materials

Nine different stories depicting potential conflict situations were read to each subject. Each story involved an incident in which a child (the target) experiences an unpleasant outcome (e.g., being hit in the back with a ball) as a result of an ambiguously intended action by another child (the actor). The same approach was used by Dodge (1980), Dodge and Frame (1982), and Sagar and Schofield (1980). Two examples of stories used in this study are given below:

Imagine that you are drinking from a water fountain at school and ___ (the actor) comes rushing down the hall. As he passes by, he bumps you in the back and your face is knocked into the water and gets all wet. When you turn around the other kids see how wet you are.

Imagine that ___ (the target) is out on the playground playing tag with several other boys, ___ (the actor) is it and he is chasing after ___ (the target). When he tags ___ (the target), ___ (the target) falls down and scrapes his knee. Some girls standing nearby giggle.

The other seven stories involved the target (a) getting hit in the back with a ball, (b) having milk spilled on him, (c) losing a lunch bag, (d) tripping over someone's foot, and (g) getting splashed by someone running through a puddle. In each story, the target was identified as either the subject himself (as in the first example above) or as a specific classmate (as in the second example). The actor was always a classmate, because it did not make sense to place the subject in the role of actor and then ask him to interpret his own behavior.

For each subject, three different classmates were chosen to be included in the stories, one to fit each of the following categories: (a) a friend, (b) an aggressive nonfriend, and (c) a nonaggressive nonfriend. The following nine different target–actor combinations were used:

<table>
<thead>
<tr>
<th>Target</th>
<th>Actor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
<td>Friend</td>
</tr>
<tr>
<td>Self</td>
<td>Aggressive nonfriend</td>
</tr>
<tr>
<td>Self</td>
<td>Nonaggressive nonfriend</td>
</tr>
<tr>
<td>Friend</td>
<td>Aggressive nonfriend</td>
</tr>
<tr>
<td>Friend</td>
<td>Nonaggressive nonfriend</td>
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<tr>
<td>Nonaggressive nonfriend</td>
<td>Friend</td>
</tr>
<tr>
<td>Nonaggressive nonfriend</td>
<td>Aggressive nonfriend</td>
</tr>
</tbody>
</table>

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1 The subject selection procedure was identical with Dodge and Somberg (1987), except that children were allowed to nominate as many best friends as they wished (instead of only three). Moreover, social preference scores were calculated by subtracting the number of Is received from 4s and 5s (instead of using the frequency of Is received), and raw preference scores were used instead of standardized scores.
Each of these different combinations was used once in the nine stories presented to each subject. The nine stories and nine target-actor combinations were systematically varied across subjects so that each pairing of story and target-actor pair occurred equally often. The order in which the stories were presented was also systematically varied to eliminate any order or position effects relating to either story or target-actor pair.

Selection of Story Participants

Information from the sociometric questionnaires used to select the subjects was also used to identify the classmates who would serve as the friend and nonfriends of the subject in the stories. To be selected as a friend, a boy had to be nominated by the subject as a best friend and be given a rating of at least 4 on the liking scale. The boy in the class nominated as aggressive by the highest percentage of peers who was not named as a best friend of the subject was included in the stories as the aggressive nonfriend. The nonaggressive nonfriend was chosen from among those who had qualified for the nonaggressive subject pool, unless all of these boys had been nominated by the subject as best friends. In this case, the boy with the lowest peer nomination score for aggression who was not named as a best friend was selected.

The method of assigning classmates as story participants led to a difference in the aggressive nonfriends of the aggressive and nonaggressive subjects, F(1, 70) = 5.09, p < .05. The aggressive nonfriends of the aggressive subjects were nominated as aggressive by an average of 54% of their classmates (SD = .26), whereas the aggressive nonfriends of the nonaggressive subjects were nominated by an average of 66% of their peers (SD = .21). This occurred because the aggressive subjects were usually the most aggressive children in their class and, therefore, the next most aggressive child was used as the aggressive nonfriend in their stories. This artifact of the selection procedure did not appear to affect the results because we found no interactions involving subject aggressiveness and story targets or actors. There was no difference between subject groups in the aggressiveness of children identified as friends or nonaggressive nonfriends. The subjects' friends received nominations for aggressiveness from an average of 19% of their classmates (SD = .17); nonaggressive nonfriends received nominations from an average of 6% of their classmates (SD = .09).

Procedure

The stories were presented to the subjects individually during one 30-min session at their schools. The interviewers (the first two authors) were unaware of the children's status as aggressive or nonaggressive subjects. The interviewer explained to each child that several short stories would be read and that, in some of these, he would be a participant, and that other boys in his class would be in them as well. The child was then asked to listen carefully because he would be asked some questions about each story when it was over. After each story, the child was first asked, "How do you think this happened?" to elicit attributions about the actor's intentions in the situation, and second, "What do you think ___ would do next?" to elicit predictions about the way the target of the offending action would respond. The child's responses were recorded verbatim and probed when necessary in a nonleading manner until the interpretations attributed to the actor and to the target were clear (e.g., "What do you think was going on here?"). After the nine stories, the child was reminded that these incidents were imaginary, and he and the interviewer returned to the classroom.

Measures

Responses describing the actor's intentions were coded as 1 (hostile), if the child attributed hostile or negative intent to the actor, 2 (neutral), if the child attributed neutral or benign intent (e.g., "it was an accident" or "someone else made him do it"), or 3 (positive), if the child thought he was trying to act benefitingly (e.g., "he picked up my pencil to give it back to me"). Similarly, the subjects' predictions about responses by the targets were coded as hostile (e.g., "hit him back," "tell the teacher to get him in trouble," or "just get mad"); neutral (e.g., "forget about it"), or positive (e.g., "thank him for finding my pencil"), depending on the affect expressed in the response (negative, neutral, or positive).

All the responses were coded by the first author, and a random selection of 40% of the responses was codified by the second author. The coders were unaware of the aggressiveness of the subjects and story participants and of whether they were friends. Agreement between the two coders, as assessed using Cohen's kappa (Cohen, 1968), was .86 for attributions and .92 for predicted responses.

Results

Plan of Analysis

In order to examine the roles played by friendship and aggressiveness in determining the attributions and predicted responses made by the subjects, a series of planned comparisons were performed. Eight contrasts consisting of orthogonal groupings of the nine target-actor combinations were identified (see Table 1). Each planned comparison was made by means of a separate 2 (grade) X 2 (subject aggressiveness) X 2 (contrast grouping) analysis of variance (ANOVA). For each ANOVA, the first two factors were between-subjects variables, and the third was a within-subjects variable. These eight contrasts were performed on both the subjects' attributions and predicted responses.

As can be seen in Table 1, target-actor combinations were grouped into contrasts, first, on the basis of the identity of the target and second, within each type of target, by the identity of the actor. This made it possible to examine how attributions and predicted responses were influenced by a particular kind of target, such as a friend or an aggressive nonfriend, and whether, for a given target, the identity of the actor precipitating the potential conflict made a difference. These contrasts were chosen because the primary issues that we wished to address related to how attributions and responses made by the subjects in their role as targets of objectionable behavior were influenced by the identity of the actor involved. Adopting this target-based focus allowed us to compare subjects' responses in situations involving themselves with their responses to situations involving others as targets (as in Dodge & Frame, 1982). Given this primary "self versus other" contrast, the remaining comparisons, involving friends compared with nonfriends and aggressive compared with nonaggressive nonfriends, followed logically and correspond to the questions that the study was designed to address. Specifically, these comparisons provided a means of looking at how friendship and aggressiveness influenced subjects' perceptions of others' intentions and responses when the subjects themselves were not involved in the situation.

Results for attributions and predicted responses are presented together, organized according to the identity of the target. Actor comparisons are presented within each target section. The dependent measures were the ratings of the subjects' attributions and predicted responses; mean ratings of attributions and predicted responses for each target–actor combination are
Table 1

Planned Contrasts Among Target–Actor Pairs for Attributions and Predicted Responses

<table>
<thead>
<tr>
<th>Contrast</th>
<th>S/F</th>
<th>S/A</th>
<th>S/N</th>
<th>F/A</th>
<th>F/N</th>
<th>A/F</th>
<th>A/N</th>
<th>N/F</th>
<th>N/A</th>
</tr>
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<tbody>
<tr>
<td>1</td>
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<td>a</td>
<td>a</td>
<td>b</td>
<td>b</td>
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<td>b</td>
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<tr>
<td>2</td>
<td>a</td>
<td>b</td>
<td>b</td>
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<tr>
<td>3</td>
<td>a</td>
<td>b</td>
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<td>b</td>
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<td>b</td>
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<td>b</td>
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<td>b</td>
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<td>a</td>
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</tr>
</tbody>
</table>

Note. S = self; F = friend; A = aggressive nonfriend; N = nonaggressive nonfriend. In each row, entries in the same column sharing the same letter were combined for purposes of the designated contrast.

Table 2

Mean Ratings of Attributions and Predicted Responses for Aggressive and Nonaggressive Subjects

<table>
<thead>
<tr>
<th>Measure</th>
<th>Target/Actor pairs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S/F</td>
</tr>
<tr>
<td>Attribution</td>
<td></td>
</tr>
<tr>
<td>Aggressive subjects</td>
<td>1.68</td>
</tr>
<tr>
<td>Nonaggressive subjects</td>
<td>1.86</td>
</tr>
<tr>
<td>Predicted response</td>
<td></td>
</tr>
<tr>
<td>Aggressive subjects</td>
<td>1.38</td>
</tr>
<tr>
<td>Nonaggressive subjects</td>
<td>1.51</td>
</tr>
</tbody>
</table>

Note. S = self; F = friend; A = aggressive nonfriend; N = nonaggressive nonfriend.

Presented in Table 2. All follow-up analyses were conducted using simple effects tests.

Self as target. Contrast 1 examined whether subjects responded differently as a function of whether the ambiguously intended action was directed at themselves or someone else. No differences were found in the subjects’ attributions. Predicted responses, however, differed according to subject aggressiveness, $F(1, 70) = 11.53, p < .01$, and target, $F(1, 70) = 21.44, p < .001$. Aggressive subjects predicted more hostile responses than nonaggressive subjects (1.31 and 1.50, respectively), and subjects predicted less hostile responses by themselves than by others (1.49 and 1.33, respectively).

Two other comparisons were made to examine the effect of different actors on attributions and predicted responses when the self was the target. Contrast 2 explored the influence of the social relationship existing between the target and the actor by comparing friends with nonfriends as actors when the self was the target. A significant effect of subject aggressiveness for attributions was found, $F(1, 70) = 4.79, p < .05$. Aggressive subjects attributed more hostile intent than nonaggressive subjects, regardless of whether the actor was a friend or a nonfriend (1.71 and 1.86, respectively). There was also a significant effect of subject aggressiveness for predicted responses, $F(1, 70) = 7.72, p < .01$. Aggressive subjects predicted more hostile responses by themselves than did nonaggressive subjects, regardless of whether the actor was a friend or a nonfriend (1.37 and 1.58, respectively).

Contrast 3 compared aggressive and nonaggressive nonfriends as perpetrators of the ambiguously intended action when the subject was the target. Analysis of subjects’ attributions resulted in a significant Grade X Subject Aggressiveness X Actor interaction, $F(1, 70) = 4.24, p < .05$. Nonaggressive third graders attributed more hostile intent to the aggressive nonfriend than to the nonaggressive nonfriend (1.63 and 2.00, respectively), $F(1, 70) = 7.06, p < .05$. There were no significant differences for the aggressive third graders or for either group of fifth graders. The analysis of subjects’ predicted responses again yielded a significant effect of subject aggressiveness, $F(1, 70) = 10.18, p < .01$. Aggressive subjects predicted more hostile responses by themselves than did nonaggressive subjects, regardless of whether they were responding to an aggressive or nonaggressive nonfriend (1.36 and 1.65, respectively).

Friend as target. Contrast 4 examined whether subjects’ attributions and predicted responses differed as a function of whether the target was a friend or a nonfriend. No significant effects for attributions were found. For predicted responses, significant effects were found for subject aggressiveness, $F(1, 70) = 5.27, p < .05$, and grade, $F(1, 70) = 5.92, p < .05$, but not for target (friend vs. nonfriend). Aggressive subjects predicted more hostile responses than nonaggressive subjects (1.26 and
1.41, respectively), and fifth graders predicted more hostile responses than third graders (1.26 and 1.41, respectively), regardless of whether the target was a friend or a nonfriend.

Contrast 5 examined the effect of aggressive compared with nonaggressive actors when the subjects' friends were the targets. Analysis of attributions yielded a significant actor effect, $F(1, 70) = 5.84, p < .05$. Subjects attributed more hostile intent to the aggressive than to the nonaggressive nonfriend (1.66 and 1.84, respectively). There was no actor effect for subjects' predicted responses. There were, however, significant effects of grade, $F(1, 70) = 5.42, p < .05$, and a Grade $\times$ Subject Aggressiveness $\times$ Actor interaction, $F(1, 70) = 6.29, p < .05$. Nonaggressive third graders expected friends to respond with more hostile intent to the aggressive than to the nonaggressive nonfriend (1.37 and 1.74, respectively), $F(1, 70) = 7.13, p < .01$. Aggressive third graders and the two groups of fifth graders did not distinguish between aggressive and nonaggressive nonfriends as actors.

**Nonfriends as targets.** The third target effect that we examined concerned attributions and predicted responses when the target was a nonfriend. Contrast 6 determined whether attributions and predicted responses differed depending on whether the target was an aggressive or a nonaggressive nonfriend. Analysis of attributions yielded no significant effects. The analysis of predicted responses, however, showed a main effect of subject aggressiveness, $F(1, 70) = 6.66, p < .05$, and a Grade $\times$ Subject Aggressiveness $\times$ Actor interaction, $F(1, 70) = 5.08, p < .05$. Aggressive subjects predicted more hostile responses than nonaggressive subjects regardless of the target (1.23 and 1.40, respectively). Third graders predicted more hostile responses by the aggressive nonfriend than by the nonaggressive nonfriend (1.26 and 1.46, respectively), $F(1, 70) = 8.02, p < .01$. Fifth graders did not distinguish between the two.

The final two contrasts examined whether actor effects were present when the target was an aggressive or a nonaggressive nonfriend. Contrast 7 compared friends with nonaggressive nonfriends as actors when an aggressive nonfriend was the target. Analysis of attributions yielded a significant interaction between grade and actor, $F(1, 70) = 4.24, p < .05$. Third graders attributed more hostile intent to the nonaggressive nonfriend than to the friend (1.71 and 1.95, respectively), $F(1, 70) = 6.99, p < .05$. Fifth graders did not distinguish between actors. No differences for predicted responses were found.

Contrast 8 compared friends with aggressive nonfriends as actors when a nonaggressive nonfriend was the target. The analysis of subjects' attributions yielded a significant interaction between grade and actor, $F(1, 70) = 5.31, p < .05$. Third graders attributed more hostile intent to the aggressive nonfriend than to the friend (1.61 and 1.82, respectively), $F(1, 70) = 5.60, p < .05$. Again, fifth graders did not distinguish between actors. Predicted responses differed with respect to grade, $F(1, 70) = 7.44, p < .01$, and subject aggressiveness, $F(1, 70) = 11.11, p < .01$. Fifth graders predicted more hostile responses than third graders (1.25 and 1.46, respectively), and aggressive subjects predicted more hostile responses than nonaggressive subjects (1.23 and 1.49, respectively), regardless of the actor.

**Link Between Attributions and Predicted Responses**

As described earlier, previous investigators have found children's responses to peer behavior to be significantly influenced by the interpretations that they make regarding the peer's intentions. To determine whether such a linkage occurred in this study, we conducted Pearson chi-square analyses, using Yates's correction for continuity, on the linkage between attributions (coded as hostile or nonhostile) and predicted responses (coded as hostile or nonhostile) for each of the 9 target-actor pairs. As shown in Table 3, a significant linkage between attributions and predicted responses was found for story pairs involving the self as target and for those involving aggressive subjects as actors. No linkage was found for the target-actor pairs involving friends and nonaggressive nonfriends as actors when the self was not involved.

Because the aggressive and nonaggressive subjects did not differ significantly in the number of hostile attributions that they made overall, but differed in the number of hostile responses that they predicted, it is possible that the relation between attributions and predicted responses might vary for these two groups. Therefore, we conducted log-linear analyses of the association between attributions and predicted responses, with subject aggressiveness as a third factor. These analyses showed that there was no significant three-way interaction among attributions, predicted responses, and subject aggressiveness for any of the nine target-actor pairs. Thus, the association between attributions and predicted responses was the same regardless of the aggressiveness of the subjects.

**Discussion**

Given the differences in conflict occurrence and management that exist among friends and nonfriends (Hartup et al., 1988), it was surprising to find that our subjects' attributions and response predictions were not influenced by their relationships with the children whose behavior they interpreted and to whom they responded. Subjects were neither more likely to give their friends the "benefit of the doubt" in interpreting their behavior nor to "shrug off" provocation coming from friends rather than nonfriends. The "hostile attributional bias" (Nasby, Hayden, & dePaolo, 1979) displayed by aggressive boys in response to ambiguous provocation was present in their interpretations of behavior by both friends and nonfriends alike. This absence of effects related to friendship suggests that differences between friends and nonfriends in the occurrence and management of conflict are not a function of the way that children interpret and respond to ambiguously intended objectionable behavior. Peer interactions involving unambiguous provocative behavior may provide a more fruitful focus for attempts at understanding conflict-related differences in the behavior of friends and nonfriends.

Although our subjects did not differ in their attributions regarding the behavior of friends and nonfriends, Hymel (1986) found that behavior by liked and disliked children was interpreted differently. The results of these two studies may appear inconsistent, but it should be noted that the comparison made in the present instance was between friends and nonfriends, rather than between liked and disliked peers. Although the children identified as friends in the present study were clearly liked by the subjects, the nonfriends were not necessarily disliked. Thus, the presence or absence of liking—and not friendship—
may be the determining factor in whether a peer is given the benefit of the doubt in an ambiguous situation.

No differences in the ways that aggressive and nonaggressive boys respond to behavior by their friends emerged from the data. The similarities and differences that were found to exist between aggressive and nonaggressive boys cut across the friend–nonfriend dimension, suggesting that, if there are differences in the friendships of these two groups, they are not manifested in attributions and responses in potential conflict situations.

Although the results obtained here suggest that the presence or absence of friendship is not an important determinant of whether conflict will occur between peers in ambiguous provocation situations, other factors were found to have an effect. A child's reputation for aggressiveness, for example, influenced both subjects' attributions and response predictions (see also Dodge, 1980; Dodge & Coie, 1987; Dodge & Frame, 1982). The effect was somewhat circumscribed, however, because three out of four subject groups did not make different attributions about the intentions of aggressive and nonaggressive boys when the subjects themselves were the targets of their actions. Only nonaggressive third graders made a distinction in this situation. Furthermore, subjects did not predict that they would respond differently to objectionable behavior coming from aggressive as opposed to nonaggressive peers. When the subjects' friends were the ones on the receiving end of objectionable behavior, however, subjects attributed more hostile intent to the aggressive than to the nonaggressive nonfriends, and nonaggressive third graders predicted that their friends would respond with more hostility to the aggressive than to the nonaggressive peers. In addition, third graders, but not fifth graders, expected that aggressive boys would respond with more hostile intent than would nonaggressive boys. Thus, effects of a peer's reputation for aggressiveness were found almost exclusively among responses to action directed at and displayed by others, and not for behavior directly involving the subjects themselves. Previous investigators have not reported such a conditional effect of reputation for aggressiveness but, rather, have found that a child's aggressive reputation affected attributions and predicted responses regardless of whether the subject was a participant in the hypothetical situation (Dodge, 1980; Dodge & Frame, 1982).

A second instance in which responses varied as a function of the subjects' involvement in the interaction was the tendency for subjects to predict significantly less hostile responses by themselves than by others. This self-other disparity in predicted responses, also displayed by the subjects in Dodge and Frame's (1982) study, suggests that children may see themselves as more virtuous, forgiving, or self-controlled than their peers when provoked. Alternatively, subjects may have been motivated, consciously or not, to make less hostile and perhaps more socially acceptable response predictions when they were talking about their own behavior, but felt freer to predict more antagonistic behavior on the part of their classmates. This apparent response bias merits further investigation.

Yet another example of differential responding to hypothetical situations involving the self compared with others was found in comparing attributions made by the aggressive and nonaggressive subjects. Aggressive subjects attributed significantly more hostile intent to the actor than nonaggressive subjects in situations involving the self as target, but the two groups did not differ when the self was not involved. This indication of a circumscribed attributional bias on the part of aggressive boys, present only when behavior was directed at them, is consistent with previous findings (Dodge & Frame, 1982).

The presence of such a hostile attributional bias in aggressive children has been posited to be partly responsible for the tendency of such children to react aggressively in potential conflict situations (Dodge, 1980; Dodge & Coie, 1987). Our findings support this hypothesis in that (a) aggressive and nonaggressive subjects differed not only in attributions but also in how often they predicted themselves to respond in a hostile manner to ambiguously intended provocations and (b) these attributions and predicted responses were significantly linked.

Although the evidence (e.g., Dodge, 1980; Dodge & Coie, 1987; Dodge & Frame, 1982) is now strong that a hostile at-
behavioral bias in aggressive children is an important determinant of individual differences in the display of "reactive aggression," the role of attributions in accounting for hostile or aggressive behavior per se is less clear. When our subjects made a hostile attribution about behavior directed at themselves, 77% of the time they predicted that they would respond in a hostile manner (as shown in Table 3). Hostile behavior, however, was also predicted to follow nonhostile attributions 44% of the time. Because nonhostile attributions accounted for more than three quarters of all attributions made by subjects regarding behavior directed at themselves, most of the hostile responses that subjects predicted themselves to make were preceded by nonhostile attributions. Indeed, 65% of the hostile predicted responses followed nonhostile attributions. This finding—the majority of hostile predicted responses were preceded by nonhostile attributions—is not unique to this data set but was also present in Dodge's (1980) study (as reflected in the figures presented in his Table 2, p. 168). Because nearly two thirds of the hostile responses that subjects predicted for themselves followed non-hostile interpretations of their peers' behavior, it would seem inappropriate to account for hostile reactive behavior in general by recourse to the attribution preceding it.

This frequent tendency for subjects to predict hostile responses in apparent disregard of their own previous attributions may seem surprising and illogical. The results of a recent investigation by Ferguson and Rule (1988), however, may help to explain such behavior. The 5- to 10-year-old subjects in their study evaluated the appropriateness of aggressive physical and verbal responses to intentional and unintentional provocative behavior by peers. Even for the cases in which retaliation was rated to be most "naughty" and deserving of punishment, these ratings were only moderate in degree, suggesting that a hostile or aggressive response to provocation is often considered acceptable by children. This appears to be true even when the initial provocation was unintended, helping to account for the high percentage of hostile responses following nonhostile attributions in the present study.

These results suggest that hostile or aggressive retaliatory behavior in response to unintended provocation is both common and acceptable during middle childhood. Selecting (or accounting for) a response to objectionable behavior, therefore, does not appear to be a simple case of matching the "tone" or valence of the response to that of the attribution (e.g., hostile to hostile; benign to benign). Models of children's social behavior may also need to take into account individual beliefs and norms of the peer culture to reflect accurately the process by which children respond to social cues. Subjects, however, were not provided with the other person's attributions, nor were they asked to speculate about them. Thus, they may at times have believed that their peers would make different attributions than they did themselves (and, indeed, some subjects told us this). These chi-square analyses, therefore, cannot tell us whether subjects expected consistency between the attributions and behavior of their peers.

The two instances in which significant relationships were found to exist between the subjects' attributions and their predictions of responses by others remain to be explained. It is noteworthy that these associations were found for the two interactions involving the aggressive nonfriend as actor and did not exist for the four interactions involving responses to either the friend or the nonaggressive nonfriend. This pattern suggests that the presence of an aggressive child as "provocateur" may have increased the likelihood that subjects would expect responses from their friends and nonaggressive peers that matched the subjects' own interpretation of events. A possible explanation for this may be found in the figures presented in Table 2, which show a slight tendency for subjects to make more hostile attributions when the actor is the aggressive nonfriend. Because subjects also tended to predict more hostile responses in general, their attributions and predictions of hostility may have matched up well enough to result in a significant chi-square.

Although this study was not designed to provide such information, questions raised in interpreting the relation between attributions and predicted responses suggest it is important to increase our knowledge of the kinds of attributions children expect peers to make, and how these relate to a child's own attributions in the same situation. Investigations of children's beliefs about the attributional tendencies of others and their expectations regarding consistency between the attributions and behavior of their peers could shed valuable light on children's understanding of the bases of others' behavior. Because children's implicit theories of behavior can be expected to influence their interpretations and responses to the actions of others, research in this area is likely to improve our understanding of all types of social interactions.

As noted above, aggressive subjects differed from their nonaggressive counterparts in the hostility with which they predicted themselves to respond to provocation. A similar difference between the aggressive and nonaggressive groups was also found in how often they predicted a hostile response from their nonaggressive peers. The two groups did not differ, however, in the responses that they predicted from their friends and from aggressive nonfriends (not in the attributions that they made about these peers). This suggests that aggressive and nonaggressive boys are similar in the ways that they view others in these two categories. The discrepancy between the two groups in the responses that they predicted from nonaggressive nonfriends, however, may reflect a greater sensitivity on the part of the nonaggressive children to their peers' nonaggressiveness.

It should be noted, finally, that scattered grade effects were found in our analyses. These were unanticipated, having generally been absent from other similar investigations. Their occur-
rence in this study did not follow a particular pattern, and no general interpretation appears possible. Their existence, however, suggests that generalizations about the way school-age children will respond in potential conflict situations should be made with caution.

References


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