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How Children's Justifications of the "Best Thing to Do" in Peer Conflicts Relate to Their Emotional and Behavioral Problems in Early Elementary School

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In this three-year longitudinal study, children were asked to choose the "best" strategy for dealing with hypothetical peer provocations and to justify "why" that was their choice at the end of first, second, and third grades. Teachers and parents also rated children's emotional and behavioral problems. Children's justifications were subjected to qualitative analyses to identify distinct content categories. These included getting others into trouble or avoiding it, dichotomous reasoning about good (kind) versus bad (mean) strategies, appeals to authorities for help, situation-specific solutions that anticipated consequences of actions, or general rules or solutions that could or should be used in similar conflicts to effect positive outcomes. These justification categories were related to the children's grade levels. Older children were more likely to use more story-specific justifications and to refer to the perspectives of others and to future consequences in their justification responses. Children who used justifications that involved getting others into trouble or avoiding it had higher levels of teacher ratings of concurrent emotional and behavioral problems at second and third grades and to parent ratings of emotional problems at third grade.

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Problems resolving conflicts with peers have been linked to a host of negative outcomes for young children, including rejection and victimization by peers, loneliness, and aggression (e.g., DuRant, Barkin, & Krowchuk, 2001; Hoglund & Leadbeater, 2004; Ladd & Troop-Gordon, 2003). However, reviews of this literature suggest that the social-cognitive *processes* that are linked to the development of more positive developmental outcomes and the avoidance of negative ones need to be better understood (Boivin, Hymel, & Hodges, 2001; Rudolph & Asher, 2000; Rudolph & Clark, 2001). In this longitudinal study, we use qualitative analyses of children's justifications of the "best" way to handle hypothetical provocations in conflicts to illuminate differences in their reasoning at the end of first, second, and third grades. We also examine whether these justifications relate concurrently and across time to parent and teacher ratings of children's emotional and behavioral problems.

What Strategies Do Children Use to Negotiate Peer Conflicts?

Children show a variety of strategies for handling peer conflicts, including seeking out someone in authority to help, withdrawing, avoiding, ignoring, assertively stating a point of view, talking out the problem, compromising, or using verbal or physical threats of aggression (e.g., Newman, Murray, & Lussier, 2001; Rose & Asher, 1999; Selman, 1980; Smith, Shu, & Madsen, 2001; Stevahn, Johnson, Johnson, Oberle, & Wahl, 2000). For example, Stevahn et al. (2000) asked kindergarten children what they would do in response to a peer conflict over the use of a valued resource (a computer). These children reported that they would appeal to norms such as fairness (38%), tell the teacher (29%), withdraw from the conflict (e.g., ignore, walk away; 25%), or verbally command or threaten the peer (6%). Although this research illuminates the variability in *what* children do when faced with a peer conflict, we know less about *why* they make these strategy choices, the nature and stability of their justifications for them, or their impact on emotional and behavioral adjustment over time.

Children's reasons for their strategy choices may vary widely: children who seek the help of an adult when provoked by an aggressive peer may be trying to get the perpetrator into trouble, or they could be seeking assistance to resolve a conflict that they could not resolve themselves. Moreover, if children's justifications motivate their behavior in daily peer interactions and, in turn, affect their peers' responses to them, then these justifications may influence the development or avoidance of emotional and behavioral problems. For instance, a child who believes that conflicts are best resolved by seeking help to get peers into trouble may be rejected by peers and suffer from social isolation and loneliness, or they may gain a reputation for tat-

tling and be picked on in retaliation. On the other hand, a child who believes that seeking help is best because it will prevent future problems may be perceived as a safe and fair playmate and be sought out by peers.

How Do Children Reason about Conflict Negotiation Strategies?

Following Werner's (1957) orthogenetic and comparative developmental theory, Selman and his colleagues have demonstrated that the development of children's interpersonal negotiation strategies reflects changes in their social cognition (Selman, 1980, 1981; Selman & Schultz, 1990). This theory classifies children's negotiation strategies into four levels: impulsive, unilateral (or self-serving), reciprocal, or mutual. The increasing complexity and sophistication of children's interpersonal negotiation strategies (INS) reflect their increasing competence in (1) differentiating and coordinating the social perspectives and interests of themselves and others (i.e., perspective-taking can reflect a self-interested or self-serving first-person perspective; a more reciprocal, second-person perspective; or, in older children, a more generalizable or third-person perspective), and (2) considering solutions that not only address immediate consequences of a strategy but are also temporally oriented toward longer-term effects and consequences (e.g., an orientation that preserves friendships or prevents problems from escalating). Following this theoretical perspective, we expect that children's justifications of their choices of the "best" way to handle a provocation will reflect differences in the developmental sophistication of their perspective-taking and orientation toward the future. Children who justify their choice of a negotiation strategy for resolving peer conflicts on the basis of personal and immediate gains may differ from children who focus on interpersonal exchanges that can be reciprocated in stable relationships over the long term.

Does Social-Cognitive Reasoning Relate to Behavior?

Selman and his colleagues have argued that while thought does not determine action, more advanced reasoning is a "necessary condition and motivating force for consistent social action" (Schultz & Selman, 1989, p. 135). The mechanisms that connect children's reasoning and actions (and peer or adult responses to them) may be indirect or unarticulated. However, children's justifications may be evident in their consistent withdrawal from social interactions or in the tone of their verbal and nonverbal strategies (as in an angry threat such as "I'm getting the teacher"). Over time, children's justifications may also be encoded in children's reputations with peers and adults.

Empirical research demonstrates that children's INS levels are related to features of individuals (e.g., age, cognitive competence) and contexts

(e.g., peer versus adult, proactive versus reactive aggression) in children and adolescents (Adalbjarnardottir, 1995; Adalbjarnardottir & Selman, 1989; Leadbeater, Hellner, Allen, & Aber, 1989; Selman et al., 1986; Yeates, Schultz, & Selman, 1991). In addition, children's INS levels have been related to their general social competence, behavior problems, and methods of dealing with peer conflict in the classroom in several studies (Adalbjarnardottir, 1995; Leadbeater et al., 1989). For instance, Yeates et al. (1991) asked children in third through seventh grades to choose how the peer conflict would "best" be solved and why. Children's choices and justifications (coded for levels of INS) correlated positively with teachers' ratings of the child's competence in dealing with provocations concurrently and four months later (for a subsample of children).

In addition, the social goals that older elementary school students select to justify their choice of strategies in hypothetical peer conflicts (e.g., provocations, instrumental conflicts, and rebuffs by peers engaged in group activities) are associated with interpersonal and behavioral adjustment (e.g., Delveaux & Daniels, 2000; Erdley & Asher, 1996; Hopmeyer & Asher, 1997). Typically, to assess social goals (defined as objectives pursued or avoided), children are asked to imagine that they are involved in hypothetical peer conflicts and to select what they would say or do from a list of five or six strategies. Next, children are asked such questions as "What would your goal be?" (Rose & Asher, 1999) or "Why are you going to do or say this?" (Chung & Asher, 1996) and are asked to select a goal from the several options presented.

Using this strategy, Erdley and Asher (1996) examined the relation between children's social goals in hypothetical peer conflicts and teacher ratings of their styles for handling ambiguous provocations (aggressive, withdrawn, or problem-solvers) in fourth and fifth grades. Aggressive children endorsed more vengeful and self-defensive goals, withdrawn children and problem-solvers chose more prosocial and peaceful goals, and withdrawn children also selected more avoidance goals. Rose and Asher (1999) also reported that fourth- and fifth-grade children's goals and strategies were predictive of their real-life friendship adjustments (number of best friends and quality of their friendships) and that children who endorsed revenge goals had more friendship difficulties. Similarly, Chung and Asher (1996) asked sixth-grade children to choose from several strategy options (hostile, assertive, passive, adult-seeking, or prosocial) what they would say or do in a variety of hypothetical peer conflicts (instrumental and interpersonal). They also chose social goals from several options (maintaining relationships, controlling activities and possessions, pursing self-interests, or avoidance of trouble). Children who chose more prosocial and passive

strategies (and fewer hostile ones) endorsed more relationship goals. Children who chose more hostile strategies (and fewer passive, prosocial, or adult-seeking ones) endorsed more control goals. Finally, children who chose more prosocial, passive, and adult-seeking strategies and fewer hostile ones endorsed more avoidance goals. Children's strategy choices were related to their peer acceptance and behavioral style (aggressive, prosocial, or avoidant), but relations with goal choices were not reported.

Although theses studies have contributed to our understanding of older elementary school children's choices of strategies and social goals in peer conflicts, asking children to choose from predetermined options both suggests possible responses that they might not have thought of and also limits available choices. The latter may not reflect younger children's reasoning about why one strategy for resolving a conflict might be preferred over others. It is possible, for example, that rather than pursing or avoiding a social objective, young children believe they are following norms about "good behavior" or fairness or are merely adhering to what they believe are the school rules when they deal with peer conflicts, as Piaget (1965) observed in the *Moral Judgment of the Child.* In addition, the reading, memory, and role-playing demands involved in comparing and contrasting several items in order to choose a preferred strategy and social goal also limit the application of this methodology with very young children. Hence, although it is possible that children's justifications for strategies used in peer conflicts reflect social goals or purposeful objectives, they may also include more automatic, rule-based, or impulsive beliefs about the "best" way to handle a conflict. Little is known about young elementary school children's justifications of peer conflict resolution strategies or about the stability in these justifications. Finally, although older children's social goals appear to be related to concurrent emotional and behavioral adjustment and peer relations, these relationships have not been examined longitudinally.

To illuminate the variability in young children's reasoning, we asked them to choose the "best" way to handle common playground provocations by peers. After choosing one of four simple behaviors (seek help, ignore, shout, or hit), children were asked, "Why is that the *best* way to handle the problem?" We focus on the "best" way to handle the provocation in order to elicit children's most competent justifications and to reduce potential variation in their reasoning driven by efficacy beliefs and outcome expectations (Erdley & Asher, 1999). Given that these qualitative data are time and labor intensive to collect and analyze for a large sample, we limit our analyses to one type of conflict situation (provocations) but examine differences in children's responses to provocation by both a younger and an older peer. Conflicts involving younger peers could evoke more self-directed and

altruistic justification reasoning compared to conflicts involving threats from older aggressors, whereas conflicts with older aggressors could be more likely to justify telling an adult in order to get help or to get a perpetrator into trouble.

Sex Differences

There is some evidence that girls and boys may favor different approaches to resolving peer conflicts, with girls relying on more verbal, prosocial strategies and boys favoring more physically and/or verbally aggressive strategies. In the Chung and Asher (1996) study, girls reported more prosocial strategies (assertively stating their own views) and also more acquiescent strategies (forfeiting their own position) compared to boys, whereas boys reported more hostile and coercive strategies (aggression) compared to girls. Other studies that have used hypothetical vignettes, self-reports, or real-life classroom interactions have replicated findings that boys use more physically aggressive or externalizing conflict negotiation strategies and girls typically use more prosocial strategies (Hopmeyer & Asher, 1997; Kochenderfer-Ladd & Skinner, 2002; Newman et al., 2001). An additional goal of this study is to examine sex differences in children's *justifications* of their strategy choices. Moreover, if there are also sex differences in the types of justifications that girls and boys offer, this may influence their emotional and behavioral adjustment over time.

In summary, past research suggests that children's justifications for their strategies for resolving peer conflicts may be important to understanding developmental outcomes in early elementary school—a critical period when children's patterns of social interactions with peers are often established (NICHD Early Child Care Research Network, 2004). In this study, we categorize children's justifications of their chosen responses to hypothetical peer provocations and identify the variability in their reasoning about the "best" way to handle these situations. Given that interpersonal understanding develops through consideration of multiple perspectives and future consequences (Selman 1980), we also independently coded children's responses for levels of social perspective-taking (singular, multiple, and general) and dimensions of temporal orientation (immediate or future) and examined their relations with the justification categories. Finally, we investigated the concurrent and prospective relations between children's justification strategies and teacher and parent ratings of emotional and behavioral problems in first, second, and third grades. Sex differences are examined throughout our analyses.

Methods

Participants

Participants were 423 children in first grade (51% boys; *M* age = 6 years, 4 months) from forty-four classrooms in eighteen public schools in a medium-sized Canadian city. Baseline data were gathered in the spring of 2001, and follow-up data were collected in the spring of 2002 from 397 children (94% retention rate) and 2003 from 385 children (91% retention rate). Children whom we failed to follow had moved out of the school district, and refusals to continue to participate were rare. The children were part of an ongoing study of the longitudinal relations among emotional and behavioral problems and experiences of peer victimization. Participants were also involved in an evaluation of a first- to third-grade peer victimization prevention program (see Leadbeater, Hoglund, & Woods, 2003) and the effects of treatment versus control group assignment on children's justifications are controlled in the analyses of behavioral and emotional problems.

According to parent reports, 65% of children lived in a two-parent household. Mothers' education ranged from eighth grade to university graduate-level education, with the average level being some college or technical training beyond high school. Thirty-two percent of children lived in a household with an annual income under $30,000 (range, less than $8,500 to more than $50,000 per year). Children represented a range of ethnicities, with 73% being European Caucasian, 9% Southeast and South Asian, 7% Aboriginal, 4% East Asian, and 5% other (e.g., African, Hispanic, Caribbean; 2% of parents did not report their race or ethnicity). Seventy-three percent of parents reported that English was the only language spoken at home.

Procedure

Evaluation packages were sent to all parents of first grade children in participating schools informing them of the study and seeking consent for their child to participate. Families who agreed completed demographic questions and rated their children's psychosocial adjustment (i.e., emotional and behavioral problems). Parents completed these questionnaires at home and returned them to the children's teachers in sealed envelopes. The consent rate was 64% across schools (range, 47% to 91%). Nonparticipants included children who did not speak English and special needs children who could not be interviewed even on an individual basis (e.g., due to autism). For children with parental consent, teachers also

completed questions on children's psychosocial adjustment while questionnaires were administered to the children.

To reduce the classroom time and disruption needed for the data collection, the interpersonal conflict vignettes were administered to the children in classrooms in groups of six to twenty. Research assistants (called "helpers") sat with the participants and supervised one or two children to ensure that they were recording their answers in the right spots on the questionnaires and to write down, verbatim, the child's justifications (i.e., their responses to the question "Why was that the best thing to do?"). So as not to disturb others and to reduce the effects on one child's answer on the others, each child was asked to "whisper" her or his answers to the research assistant, who then recorded the child's responses. Children were also told that there were no wrong answers and that we were interested in what they thought. Which child was asked to give his or her answer first was changed for each story.

Measures

Interpersonal conflict vignettes. To elicit children's justifications, we used a modification of the Relationship Questionnaire designed for kindergarten to third grade to assess children's interpersonal negotiation strategies (Schultz & Selman, 2000). Children were read two short vignettes in which one familiar animal (an older goat and a younger puppy) was disturbing a group activity of other animals (see Appendix; half received the goat story first). The use of pictures of familiar animals helps children follow the questionnaire format (i.e., to find the goat) and serves as a memory aid in selecting the one animal that did the best thing (see Figure 1). This also ensured that the names of these hypothetical characters were not those of familiar children. This methodology is commonly used to elicit young children's most competent response to hypothetical dilemmas (Selman & Schultz, 1990). In modifying the measure, we included strategies that each of four familiar animals used to handle the conflict, including seeks help (tells the teacher), ignores, shouts at the goat/puppy to stop, or hits. Children were asked to rate each choice as excellent, good, okay, or bad using smiling, neutral, and frowning faces (see Figure 1). Then they were asked to circle the picture of the one animal that did the "best" thing. Finally, children were asked to answer the question "Why was that the best thing to do?" Their responses were written, verbatim, by the research assistant, and children's answers were probed for clarification when needed. Answers were typed into spreadsheets, and coders were blind to all other data. Children's answers were coded by independent teams of graduate and

undergraduate research assistants, as described below, for (1) justification categories, (2) temporal orientation (immediate or future) levels, and (3) perspective-taking levels.

Coding schemes. The coding scheme for justification was derived from a content coding of the children's responses to the question "Why was that

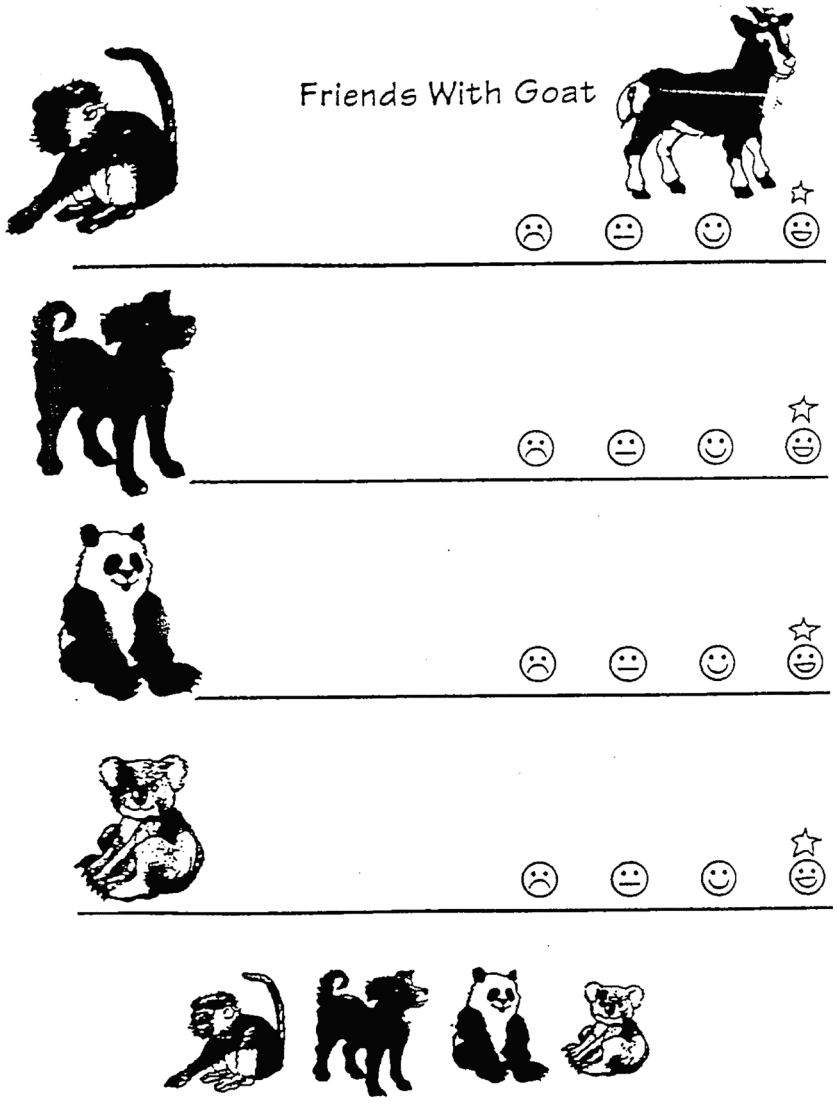

Figure 1. Sample answer sheet for goat story (adapted from Schultz & Selman 2000).

the best thing to do?" The second author and a research assistant used a standard method for the analysis of qualitative data (Strauss, 1987). First, twenty of the children's responses were randomly selected and independently sorted into distinct content categories or themes that reflected differences in children's justifications for their choice. These categories were then applied to twenty more randomly selected responses, and those responses that did not fit into the initial categories were used to describe new categories until no new categories were needed to classify the children's responses (i.e., the content analysis reached saturation). Eight distinct content categories were found. Coding categories were as follows: 0 = no answer or repeated the choice given (e.g., "I *don't know*"; "Because he *ignored*"); 1 = retaliation (e.g., "He *hit* the goat *because the goat was being mean*"); 2 = to get the bully in trouble or avoid getting into trouble oneself (e.g., "So *he doesn't get in trouble* with the rest of the animals"; "Because then *the other animals would get in trouble* too"); 3 = dichotomous reasoning (right/wrong, good/bad, nice/mean) that either labeled the behavior as "good" or viewed the chosen answer as "better" than what the other animals did (e.g., "The other animals *were wrong*"; "Koala *didn't do anything wrong* by getting the duty"); 4 = direct appeals to an authority to handle the conflict (e.g., "He told the teacher so that the *teacher could deal with goat*"; "Because the *duty will stop the goat from teasing* other animals"); 5 = consideration of the specific consequence of the choice and how it avoids a negative outcome or promotes a positive outcome in the current conflict (e.g., "He just ignored goat. If you ignore goat *he won't bother you anymore*"; "Because then Wet Puppy *won't shake his fur on the friends anymore*"); 6 = appeals to a general rule of behavior (e.g., "The goat was doing something wrong. *If someone does something wrong you should tell on them*"; "You *should always* tell the duty"); and 7 = considers consequences of behavior(s) that generally or usually promote optimal outcomes in this kind of situation (e.g., "It is good to tell when it is something that hurts. It *would stop someone from getting hurt*"; "Because that [ignoring] *means that you don't hurt the other person's feelings,* and so they can't say anything back to you and *they will leave you alone*").

To examine the relations of the justification categories with the levels of temporal orientation and perspective-taking evident in the children's responses, we asked raters, blind to all other data, to code responses for each of these. To code *temporal orientation,* coders asked themselves the question "When would the child's response have an effect and what would happen?" Higher scores reflected a more future-oriented outlook. Categories were 0 = no time orientation is elaborated (e.g., "He said 'no shoving' and it's not nice to shove"; "He told on the dog. It was nice"); 1 =

response considers a solution to the immediate conflict (e.g., "The goat *stops teasing them*"; "He told the duty teacher and the duty teacher would *stop the fight*"); 2 = response talks about an action or event that goes beyond current conflict to effect future conflicts or stops the current conflict from escalating (e.g., "Turkey chose to go somewhere else. *Wet puppy would keep on doing what he was doing if they didn't move*"; "The duty teacher could talk to all the children *so the goat couldn't be a bully anymore*").

To code perspective-taking, raters examined the perspective(s) of the child by asking themselves the question "Whose shoes was/were the child standing in to give the response?" Categories were as follows: 0 = no perspective was elaborated (e.g., "*It* was good to do that"); 1 = the child's focus was on the singular perspective of one animal (e.g., "*Koala* doesn't get in trouble"; "Because then *Koala* won't have to do anything mean"); 2 = multiple perspectives were considered (e.g., "*They* didn't want to get wet. It's not very nice to shout at the *Puppy*"; "Because it would have helped *all of Koala's friends* and get the *Goat* to stop teasing *them*"); and 3 = the perspective of people in general was considered (e.g., "Llama is good because you shouldn't be mean to *people*"; "It is not about him teasing *people.* If *someone* is doing a bad thing they would go and tell the duty teacher").

Reliability of codes. Two independent coding teams, each composed of one graduate student and one undergraduate student, were trained to a high level of agreement (Kendall's correlations of .75 and above). Each of the justification, temporal, and perspective-taking dimensions were coded separately. Final agreement between one rater designated the master coder, and each of the other raters was calculated for 22% of the total sample for each variable. Cohen's kappa values for the justification dimension ranged from .79 to .84, for the temporal orientation dimension ranged from .81 to .84, and for the perspective-taking dimension ranged from .74 to .85, all indicating good to excellent agreement (only one value fell below the .75 cutoff) (Fleiss, 1981). Levels of interrater reliability were not inflated as a result of 0 codes (0 codes consisted of answers that only repeated the strategy verbatim, stated "I don't know," or gave no clear answer to the question). These ranged from 2% to 10% and declined across grades, as reported below.

Word length of children's responses was computed using the word count function in Microsoft Excel, separately, at first, second, and third grades. This function counts the number of words (excluding spaces between words) in each cell.

Emotional and behavioral adjustment. Children's emotional and behavioral problems were assessed from both teacher and parent reports on the Early School Behavior Rating Scales (ESBS) (Caldwell & Pianta, 1991) at Times 1, 2, and 3. The teacher version of the ESBS contains 40

items and the parent version of the ESBS contains 43 items rated on a 4-point Likert scale (1 = hardly ever to 4 = almost always). This scale taps children's *emotional problems* (e.g., "appears unhappy or depressed," "worries"; 17 items on the teacher version and 18 items on the parent version), *behavioral problems* (e.g., "fights with other children," "has poor attention span"; 9 items on both versions), and *social competence* (e.g., "gets along with other children," "is aware of others' feelings"; 14 items on the teacher version and 16 items on the parent version). The social competence scale was not used in the current analyses. Internal reliability was high for teachers' ratings at first, second, and third grades (alphas for emotional problems were .81, .81, and .86 and for behavior problems were .88, .85, and .87, respectively) and for parents' ratings (alphas for emotional problems were .71, .70, and .76 and for behavior problems were .75, .76, and .75, respectively). Test-retest reliability was good, as reports of children's emotional and behavioral problems were moderately correlated over first, second, and third grades for both teachers (emotional problems: rs = .31 – .43, $p < .01$; behavioral problems: rs = .63 – .67, $p < .01$) and parents (emotional problems: rs = .65 – .73, $p < .01$; behavioral problems: rs = .65 – .72, $p < .01$).

Results

First, we present findings examining the children's choice of the "best" *strategy* for handling the provocations in each story and how their answers compare across grades, for boys and girls and for children in the program or control groups. The relations of these strategy choices to the justification categories are described next. We also examine the associations of justification categories with grade, sex, and program versus control group and with the independently rated levels of temporal orientation and perspective-taking. Finally, multivariate analyses of variance are used to assess whether justification categories relate to teacher and parent reports of the children's emotional and behavioral problems concurrently and across time. For all analyses, significance levels were $p < .05$, unless otherwise stated.

What Was the "Best" Thing to Do? What Strategies Do Children Choose?

As shown in the "Totals" row in Table 1 for the goat story and in Table 2 for the puppy story, help-seeking strategies were selected most often at each grade (60% to 80%). Ignoring was chosen 19% to 39% of the time. Strategy choice was not significantly associated with story type, sex of the child, or

involvement in program or control group at any grade. Overall, strategy choice was related to grade level for the goat story ($\chi^2[6, N = 1204] = 39.13$, $p < .01$) and puppy story ($\chi^2[6, N = 1202] = 37.96$, $p < .01$). For the goat story, follow-up chi-square tests revealed that the help-seeking strategies declined while the ignore strategies increased significantly from first to second grades (χ^2s[1, $N = 396$] = 40.89 and 42.65, $p < .01$, respectively). For the puppy story, help-seeking strategies also declined significantly while the ignore strategies increased from first to second grades (χ^2s[1, $N = 395$] = 31.26 and 43.06, $p < .01$, respectively).

Strategy choices were related to justification category at each grade, and patterns were similar across the goat and puppy stories (see Tables 1 and 2). Only distributions for the goat story are described below to reduce redundancy. Reflecting our request to pick the "best" way of handling the situation, 2% or less of children in each grade chose the more aggressive strategies of hits or shouts. Most of these gave retaliation or avoid trouble or dichotomous reasoning justifications. In contrast, children who chose either help-seeking or ignores gave a variety of different justifications for their choices. For example, in first grade most children who chose help-seeking gave justifications that reflected dichotomous reasoning (20.6%) or appeals to authority (26.1%). In second and third grades, most children who chose help-seeking strategies gave appeals to authority (26.3% and 21.8%, respectively) or story-specific (17.7% and 23.4%, respectively) justifications. Only a few children who chose help-seeking gave generalized rule or outcome justifications at each grade (10.6% in first grade, 6.9% in second grade, and 4.7% in third grade).

The Relations of Children's Justification Categories with Grade, Sex of the Child, and Program

Children's justification responses were rated in the same category for both stories almost half of the time (45% in first grade, 45.8% in second grade, and 43.5% in third grade). In order to reduce redundancy in our subsequent analyses, we combined the data across the two stories. We used the common justification category when possible. Where justifications differed, we selected the category that reflected the greater social-cognitive complexity (including the ability to differentiate and coordinate the social perspectives and interests of the self and others or to consider the consequences of the chosen strategy). Thus, retaliation or getting into or avoiding punishment justifications were considered the least complex because they anticipated personal gains or losses only. Next we considered justifications that reflected dichotomous reasoning and appealing to an authority. These justifications

Table 1. Frequencies (in Percent) of Justification Category by Strategy Choice for the Goat Story

	First Grade					Second Grade					Third Grade				
Justification Category	0	1	2	3	Total	0	1	2	3	Total	0	1	2	3	Total
Not elaborated	0.2	0.2	7.9	2.6	10.9	0.0	0.0	2.0	3.3	5.3	0.0	0.0	1.3	3.3	4.6
Retaliation & Avoid trouble	0.5	0.0	4.3	0.7	5.5	0.5	0.0	4.8	1.8	7.1	0.0	0.0	7.0	1.8	8.8
Dichotomous reasoning	0.2	0.2	20.6	5.8	26.8	0.0	0.0	7.3	4.8	12.1	0.0	0.0	5.7	6.8	12.5
Appeals to authority	0.0	0.0	26.1	0.0	26.1	0.0	0.0	26.3	0.0	26.3	0.0	0.0	21.8	0.3	22.1
Story-specific outcome	0.0	0.2	10.3	5.7	16.3	0.0	0.3	17.7	18.0	36.0	0.0	0.3	23.4	19.7	43.4
Generalized rule	0.0	0.0	8.9	3.3	12.2	0.0	0.0	5.1	3.8	8.9	0.0	0.0	3.1	2.1	5.2
Generalized outcome	0.0	0.0	1.7	0.5	2.2	0.0	0.0	1.8	2.5	4.3	0.0	0.0	1.6	1.8	3.4
Strategy Choice Totals	0.9	0.6	79.8	18.7		0.5	0.3	65.0	34.2		0.0	0.3	63.9	35.8	
Pearson Chi-Square for Justification × Strategy	$\chi^2(18, N = 418) = 63.60^*$					$\chi^2(18, N = 395) = 112.86^*$					$\chi^2(12, N = 385) = 75.72^*$				

Note: Strategy choice: 0 = hits goat, 1 = shouts at goat to stop, 2 = help-seeking (gets duty), 3 = ignores goat.

$^*p < .01$.

Table 2. Frequencies (in Percent) of Justification Category by Strategy Choice for the Puppy Story

	First Grade					Second Grade					Third Grade				
Justification Category	0	1	2	3	Total	0	1	2	3	Total	0	1	2	3	Total
Not elaborated	0.0	1.4	6.2	2.9	10.5	0.0	0.0	2.5	1.5	4.0	0.0	0.3	1.0	1.3	2.6
Retaliation & Avoid trouble	0.2	0.0	3.6	0.2	4.0	0.3	0.0	3.9	0.3	4.5	0.0	0.3	4.1	0.8	5.2
Dichotomous reasoning	0.0	1.4	19.9	6.0	27.3	0.0	0.0	8.6	5.3	13.9	0.0	0.0	5.7	7.0	12.7
Appeals to authority	0.0	0.0	23.5	0.2	23.7	0.0	0.0	22.6	0.3	22.9	0.0	0.0	20.1	0.8	20.9
Story-specific outcome	0.0	0.6	13.9	10.6	25.1	0.0	0.5	21.2	25.2	46.9	0.0	0.8	26.0	27.1	53.9
Generalized rule	0.0	0.0	5.8	1.4	7.2	0.0	0.0	2.3	3.2	5.5	0.0	0.0	1.3	1.3	2.6
Generalized outcome	0.0	0.0	1.7	0.5	2.2	0.0	0.0	1.8	0.5	2.3	0.0	0.0	1.6	0.5	2.1
Strategy Choice Totals	0.2	3.4	74.6	21.8		0.3	0.5	62.9	36.3		0	1.4	59.8	38.8	
Pearson Chi-Square for Justification × Strategy	$\chi^2(18, N = 417) = 101.59$*					$\chi^2(18, N = 397) = 110.41$*					$\chi^2(12, N = 384) = 76.10$*				

Note: Strategy choice: 0 = hits puppy, 1 = shouts at puppy to stop, 2 = help-seeking (gets duty), 3 = ignores puppy.

*$p < .01$.

prescribe an action but do not take into account what might happen as a result beyond halting the immediate conflict. Justifications referring to story-specific consequences were considered more complex because they suggest what would happen next if the chosen strategy were enacted. The most complex social-cognitive capacity was reflected in justifications that considered rules that could or should apply generally across similar types of situations or that predicted and evaluated consequences of the chosen strategy.

The association of the justification categories with sex, program or control group, and grade were examined first. As shown in Table 3, few sex differences were found. The association with sex was significant only in third grade ($\chi^2[5, N = 385] = 17.38$, $p < .01$). Follow-up chi-square tests examining the relation between sex and each justification category showed that boys used dichotomous reasoning justifications significantly more than girls (4.9% compared to 0.8%; $\chi^2[1, N = 385] = 11.24$, $p < .01$).

Being in the program or control group was significantly associated with justification categories at each grade ($\chi^2[6, N = 421] = 17.43$, $p < .01$ in first grade; $\chi^2[6, N = 397] = 15.07$, $p < .05$ in second grade; and $\chi^2[6, N = 385] = 25.84$, $p < .01$ in third grade). Follow-up chi-square tests were used to examine the relation between program or control group status and justification category at each grade. In first grade, program children gave fewer dichotomous reasoning (17.1%) and story-specific outcome (25.3%) justifications than control children (25.0% and 34.3%, respectively; χ^2s$[1, N = 421] = 3.70$ and 3.75, respectively). In both first and second grades, program children gave more generalized rule justifications (19.6% and 15.2%, respectively) than control children (7.1% and 6.0%, respectively; $\chi^2[1, N = 421] = 11.06$, $p < .01$ in first grade and $\chi^2[1, N = 397] = 6.95$, $p < .01$ in second grade). This may reflect the influence of the program's rules to use your WITS and *w*alk away, *i*gnore the bully, *t*alk it out, and *s*eek help to solve problems. In third grade, program children also gave significantly more appeals to authority than control children (17.9% and 10.9%, respectively; $\chi^2[1, N = 385] = 3.15$). In third grade, program children gave fewer retaliation (1.6%), generalized rule (4.3%), and generalized outcome justifications (2.7%) than control children (6.3%, 9.4%, and 10.9%, respectively; χ^2s$[1, N = 385] = 6.23$, 3.95, and 11.18 for retaliation, generalized rule, and generalized outcomes, respectively).

Overall, justification categories were related significantly with grade level ($\chi^2[12, N = 1203] = 149.17$, $p < .01$). Story-specific outcome justifications were modal for students at first, second, and third grades (representing 28% of the responses in first grade and increasing to 53% and 64% in second and third grades, respectively). This increase was significant from first

Table 3. Frequencies (in Percent) of Justification Categories by Sex and Grade

	First Grade			Second Grade			Third Grade		
Justification Category	Girls	Boys	Total	Girls	Boys	Total	Girls	Boys	Total
Not elaborated	2.8	2.4	5.2	0.5	0.5	1.0	0.5	0.0	0.5
Retaliation & Avoid trouble	0.7	1.7	2.4	0.5	1.5	2.0	1.0	2.1	3.1
Dichotomous reasoning	8.3	11.4	19.7	3.0	4.6	7.6	0.8	4.9	5.7
Appeals to authority	13.3	11.4	24.7	9.1	9.3	18.4	8.1	7.5	15.6
Story-specific outcome	11.9	16.4	28.3	24.9	28.5	53.4	30.9	32.7	63.6
Generalized rule	8.6	6.8	15.4	6.6	5.5	12.1	3.9	2.1	6.0
Generalized outcome	3.1	1.2	4.3	3.5	2.0	5.5	3.1	2.4	5.5
Sex Totals	48.7	51.3		48.1	51.9		48.3	51.7	
Pearson Chi-Square for Sex	χ^2 (6, N = 421) = 11.50			χ^2 (6, N = 397) = 5.55			χ^2 (6, N = 385) = 17.38*		
Overall Pearson Chi-Square for Grade × Justification	χ^2 (12, N = 1203) = 149.17*								

*$p < .01$.

to second grades ($\chi^2[1, N = 395] = 11.09, p < .01$). Dichotomous reasoning justifications decreased significantly from first to second grades ($\chi^2[1, N = 395] = 8.70, p < .01$). Appeals to authority and generalized rule justifications decreased significantly from first to second grades (χ^2s$[1, N = 395] = 5.61, p < .05$ and $12.32, p < .01$, respectively) and from second to third grades (χ^2s$[1, N = 383] = 4.52$ and $4.10, p < .05$, respectively).

Justifications and Levels of Temporal Orientation and Perspective-Taking

Cross-tabulations of the justification categories with temporal orientation are shown in Table 4 and with perspective-taking in Table 5. Temporal orientation was not associated with sex or program differences at any grade. Overall, temporal orientation was associated with grade level ($\chi^2[4, N = 1203] = 154.89, p < .01$). Follow-up chi-square analyses showed that justifications with no temporal orientation declined significantly from first to second grades ($\chi^2[1, N = 395] = 3.87$). Justifications that focused on solving the current problem also decreased significantly from first to second grades ($\chi^2[1, N = 395] = 7.21, p < .01$). Also as expected, justifications that were future-oriented increased significantly from first to second grades ($\chi^2[1, N = 395] = 6.12, p < .01$). While only 29% of children gave a future-oriented response in first grade, this rose to 53% in second grade and 63% in third grade.

The overall association between temporal orientation and justification categories was significant at each grade (see Table 4). Most children who gave dichotomous reasoning justifications indicated no temporal orientation in first grade ($\chi^2[1, N = 421] = 108.75, p < .01$) or second grade ($\chi^2[1, N = 397] = 78.79, p < .01$). Children who gave appeals to authority justifications focused on the immediate problem most often in first grade ($\chi^2[1, N = 421] = 72.12, p < .01$) and second grade ($\chi^2[1, N = 397] = 60.97, p < .01$), although by third grade similar numbers of children focused on either immediate solutions (7.5%) or future consequences (8.1%). At all grade levels, children who gave story-specific outcome justifications referred to future consequences most often ($\chi^2[1, N = 421] = 48.41, p < .01$ in first grade, $\chi^2[1, N = 397] = 12.20, p < .01$ in second grade, and $\chi^2[1, N = 385] = 9.51$ in third grade). Children who gave generalized rule justifications referred to consequences that would occur in the future most often at each grade. The association was significant in first grade ($\chi^2[1, N = 421] = 12.69, p < .01$) and second grade ($\chi^2[1, N = 397] = 2.87$). Children who gave generalized outcome justifications referred to future consequences most often in second grade ($\chi^2[1, N = 397] = 16.74, p < .01$) and third grade ($\chi^2[1, N = 385] = 5.07$).

Perspective-taking was not associated with sex differences at any grade, and it was significantly associated with program status at third grade

only ($\chi^2[3, N = 385] = 12.53, p < .01$). Follow-up chi-square analyses showed few differences. Program children gave significantly more justifications with no perspective elaborated (9.6%) and fewer justifications that focused on multiple perspectives (59.9%) than control children (0.9% and 72.7%, respectively; $\chi^2[1, N = 327] = 8.65, p < .01$ for no perspective and $\chi^2[1, N = 385] = 6.03$ for multiple perspectives). Overall, perspective-taking ability was associated with grade in the expected direction ($\chi^2[6, N = 1203] = 110.92, p < .01$). References to the perspective of multiple others increased across grade from 48% at first grade to 60% at second grade and 64% at third grade, but not significantly. References to a singular perspective increased significantly from first to second grades ($\chi^2[1, N = 395] = 4.09$). References to general perspectives decreased from second to third grades ($\chi^2[1, N = 383] = 6.25$).

The overall association between perspective-taking and justification categories was significant at each grade (see Table 5). Associations of perspective-taking across the justification categories reflecting retaliation, avoiding trouble, and dichotomous reasoning were not significant. For appeals to authority justifications children referred to the multiple perspectives of the animals most often at each grade, and this association was significant in third grade ($\chi^2[1, N = 385] = 11.34, p < .01$). At all grade levels, children who gave story-specific outcome justifications referred to multiple perspectives most often ($\chi^2[1, N = 421] = 49.52, p < .01$ in first grade, $\chi^2[1, N = 397] = 55.87, p < .01$ in second grade, and $\chi^2[1, N = 385] = 62.62, p < .01$ in third grade). For generalized rule justifications children referred to the perspective of people in general most often at each grade ($\chi^2[1, N = 421] = 38.13, p < .01$ in first grade, $\chi^2[1, N = 397] = 38.35, p < .01$ in second grade, and $\chi^2[1, N = 385] = 76.35, p < .01$ in third grade). Similarly, children who gave generalized outcome justifications referred to the perspective of people in general most often at each grade ($\chi^2[1, N = 421] = 63.45, p < .01$ in first grade, $\chi^2[1, N = 397] = 47.71, p < .01$ in second grade, and $\chi^2[1, N = 385] = 55.15, p < .01$ in third grade).

Are Justifications Related to Children's Concurrent and Prospective Adjustment?

Parent and teacher ratings were weakly but significantly correlated at first, second, and third grades for emotional problems (range rs = .26 to .36) and for behavioral problems (range rs = .37 to .43).

Separate multivariate analyses of variance (MANOVAs) examined concurrent relations between children's justification responses and mean levels of teacher- and parent-rated emotional and behavioral problems at each grade. Data for children who gave no justification responses are not

Table 4. Frequencies (in Percent) of Justification Category by Concurrent Temporal Orientation Category

	First Grade				Second Grade				Third Grade			
Justification Category	0	1	2	Total	0	1	2	Total	0	1	2	Total
Not elaborated	5.0	0.2	0.0	5.2	1.0	0.0	0.0	1.0	0.0	0.5	0.0	0.5
Retaliation & Avoid trouble	0.5	1.9	0.0	2.4	0.3	0.7	1.0	2.0	0.0	1.6	1.6	3.2
Dichotomous reasoning	14.3	4.0	1.4	19.7	4.4	1.0	2.0	7.4	1.3	1.8	2.5	5.6
Appeals to authority	0.7	19.7	4.3	24.7	0.3	13.9	4.3	18.5	0.0	7.5	8.1	15.6
Story-specific outcome	1.0	12.1	15.2	28.3	3.3	17.4	32.7	53.4	0.0	22.3	41.3	63.6
Generalized rule	4.3	3.8	7.3	15.4	1.8	2.5	7.8	12.1	0.0	1.6	4.4	6.0
Generalized outcome	1.2	2.1	1.0	4.3	0.0	0.3	5.3	5.6	0.0	0.8	4.7	5.5
Temporal Orientation Totals	27.0	43.8	29.2		11.1	35.8	53.1		1.3	36.1	62.6	
Pearson Chi-Square for Justification × Temporal	χ^2 (12, N = 421) = 267.22*				χ^2 (12, N = 397) = 184.02*				χ^2 (12, N = 385) = 97.68*			

Note: Temporal orientation: 0 = no temporal orientation, 1 = focus on solving current problem, 2 = focus on future consequences.

*$p < .01$.

Table 5. Frequencies (in Percent) of Justification Category by Concurrent Perspective-Taking Category

	First Grade					Second Grade					Third Grade				
Justification Category	0	1	2	3	Total	0	1	2	3	Total	0	1	2	3	Total
Not elaborated	4.3	0.5	0.5	0.0	5.3	0.5	0.0	0.5	0.0	1.0	0.3	0.3	0.0	0.0	0.6
Retaliation & Avoid trouble	0.0	0.7	1.7	0.0	2.4	0.3	0.7	1.0	0.0	2.0	0.0	0.5	2.3	0.3	3.1
Dichotomous reasoning	5.2	2.9	10.2	1.4	19.7	0.0	2.8	3.8	1.0	7.6	0.8	1.6	2.6	0.7	5.7
Appeals to authority	8.6	5.2	9.5	1.4	24.7	2.3	6.8	8.3	1.0	18.4	3.3	3.9	7.0	1.3	15.5
Story-specific outcome	2.9	2.4	21.1	1.9	28.3	0.0	6.5	41.1	5.8	53.4	1.0	8.3	50.1	4.2	63.6
Generalized rule	2.6	2.6	4.3	5.9	15.4	0.0	2.0	4.0	6.0	12.0	0.0	0.5	0.8	4.7	6.0
Generalized outcome	0.7	0.0	0.2	3.3	4.2	0.3	0.3	1.0	4.0	5.6	0.3	0.0	1.3	3.9	5.5
Perspective-Taking Totals	24.3	14.3	47.5	13.9		3.4	19.1	59.7	17.8		5.7	15.1	64.1	15.1	
Pearson Chi-Square for Justification × Perspective	χ^2 (18, N = 421) = 197.82*					χ^2 (18, N = 397) = 188.59*					χ^2 (18, N = 385) = 205.95*				

Note: Perspective-taking: 0 = not elaborated, 1 = singular perspective, 2 = multiple perspectives, 3 = perspectives of people in general.

*$p < .01$.

included in these analyses. Given that sex differences in behavioral problems are frequently noted in the literature, sex was entered as a covariate in all analyses. The main effects for sex for teacher and parent reports of behavioral problems were significant at second and third grades with boys showing higher levels, as expected. Because the effects of word length and program involvement were not consistent and did not significantly affect the relations between justification categories and the outcomes, word length[1] and program[2] involvement were not entered as covariates in the final MANOVAs reported.

Multivariate *F*'s were significant ($p < .05$) for the overall equations for teacher-rated emotional and behavioral problems in second grade (F [10, 760] = 1.90) and third grade (F [10, 724] = 3.26), and a trend was found in first grade (F [10, 782] = 1.73, $p < .10$). Univariate *F*-tests, shown in Table 6, indicated that mean levels of teacher-rated emotional problems differed significantly by justification categories in second and third grades. Mean levels of teacher-rated behavioral problems differed significantly by justifications in first and third grades, and a trend was found in second grade ($p <$ .10). In first grade, significant Dunnett's post hoc t-tests indicated that mean levels of behavioral problems for children who gave retaliation and avoid trouble justifications were higher than means for the appeals to authority and story-specific justifications. In second grade, mean levels of emotional and behavioral problems for the retaliation and avoid trouble response were higher than means for all justification responses, except for dichotomous

1. Justification categories were not related to differences in word length in first grade (Anova F[5, 392] = 0.65, *ns*) but were in second grade (F[5, 386] = 3.52, $p < .01$) and third grade (F[5, 376] = 3.95, $p < .01$). Children using the retaliation and avoid trouble category used fewer words than the story-specific, generalized rule and generalized positive outcome categories in second grade and the dichotomous reasoning, generalized rule, and generalized positive outcome categories in third grade. Mean word lengths in first, second, and third grades were, respectively, retaliation and avoid trouble, 13.10, 11.69, and 21.08 (*SD*s = 5.77, 4.09, and 7.37); dichotomous reasoning, 14.73, 17.75, and 29.52 (*SD*s = 6.08, 8.42, and 9.99); appeals to authority, 13.81, 17.75, and 29.52 (*SD*s = 4.92, 8.42, and 9.99); story specific, 14.25, 17.95, and 25.52 (*SD*s = 6.13, 7.68, and 11.39); generalized rule, 15.28, 19.63, and 33.41 (*SD*s = 6.78, 7.96, and 12.03); and generalized positive outcome, 14.28, 21.50, and 30.62 (*SD*s = 6.79, 8.47, and 8.94). When entered as a covariate in each MANOVA, word length was significant only for parent-rated problems in first grade (F[2, 315] = 4.21, $p < .05$) and second grade (F[2, 311] = 4.02, $p < .05$); children with higher levels of behavioral problems used more words in first grade, and children with higher levels of emotional problems used fewer words in second grade.

2. MANOVAs were tested with program involvement as a covariate. Program effects were significant for teacher-rated problems in first grade only: multivariate F(2, 390) = 3.05, $p < .05$; emotional problems, univariate F(1, 391) = 5.43, $p < .05$; behavioral problems, univariate F(1, 391) = 0.02, *ns*. Children in the program schools showed lower levels of emotional problems (M = 24.60, SD = 5.95) in first grade than children in the control schools (M = 26.15, SD = 6.73).

reasoning. In third grade, mean levels of emotional and behavioral problems for the retaliation and avoid trouble response were also higher than means for all other justification responses.

For parent-rated emotional and behavioral problems, the Multivariate F was significant for the overall equation in third grade only (F [10, 584] = 1.90, $p < .05$). Follow-up Univariate F-tests (see Table 7) indicated that mean differences were significant for emotional problems but not behavioral problems. Dunnett's post hoc t-test comparisons showed that mean levels of emotional problems for third grade children who gave retaliation and avoid trouble justifications were significantly higher than means for all other justification categories (except generalized outcome justifications).

Repeated measures General Linear Modeling analyses examining whether earlier justification responses contributed to changes in mean levels of teacher- or parent-rated emotional and behavioral problems, with sex entered as a covariate, were not significant.

Discussion

This study contributes to knowledge of how young elementary school children justify the behavioral or verbal strategies that they choose as the best way to handle peer provocations. Children's justifications were varied and were related to their capacities for perspective-taking and orientation toward future consequences, as well as to their verbal ability and grade level in expected directions. Children's justifications were also related concurrently, but not prospectively, with teacher ratings of their behavioral problems in first, second, and third grades; with teacher ratings of emotional problems in second and third grades; and with parent ratings of emotional problems in third grade.

Although the majority of children easily identified nonaggressive strategies as the "best" way of dealing with hypothetical peer conflicts, even in first grade variations in their justifications for these choices were striking. For example, children who chose to seek the help of a teacher—the modal strategy in first grade—said that this was the best strategy because it would get the bully into trouble (e.g., "Telling the duty teacher would get Goat in trouble"), it would solve the problem (e.g., "The duty teacher will fix it"), or it would stop bad things from happening (e.g., "It is good to tell when it is something that hurts. It would stop somebody from getting hurt").

On the other hand, some children who chose *different behavioral strategies* such as help-seeking and ignoring gave similar justifications such as avoiding getting into trouble (e.g., seek help: "He went to go get the

Table 6. Concurrent Relations between Justification Categories and Mean Levels (and Standard Deviations) of Teacher-Rated Emotional and Behavioral Problems

	First Grade			Second Grade			Third Grade		
Justification Category	Emotional	Behavioral	N	Emotional	Behavioral	N	Emotional	Behavioral	N
Retaliation & Avoid trouble	29.62 (11.86)	15.80 (7.21)[a]	10	32.38 (9.52)[a]	17.36 (4.97)[a]	8	36.72 (11.54)[a]	19.82 (8.04)[a]	11
Dichotomous reasoning	25.13 (5.58)	13.28 (4.80)	83	28.19 (7.49)	14.20 (5.65)	30	27.06 (6.89)[b]	12.24 (3.30)[b]	21
Appeals to authority	25.32 (6.67)	11.91 (4.10)[b]	104	26.55 (6.36)[b]	12.43 (3.71)[b]	73	27.23 (6.51)[b]	12.62 (3.75)[b]	58
Story-specific outcome	24.96 (6.07)	11.96 (3.69)[b]	119	25.85 (5.96)[b]	12.99 (4.47)[b]	209	27.68 (6.93)[b]	12.88 (4.38)[b]	237
Generalized rule	24.66 (5.96)	12.94 (5.01)	65	25.59 (5.59)[b]	12.61 (4.09)[b]	46	27.75 (9.34)[b]	13.83 (5.47)[b]	23
Generalized outcome	26.06 (6.53)	12.11 (4.57)	18	24.62 (5.40)[b]	11.86 (2.95)[b]	22	27.87 (7.57)[b]	12.80 (3.90)[b]	20
Grand Mean	25.05 (6.29)	12.48 (4.45)	399	26.20 (6.23)	12.48 (4.45)	388	27.86 (7.35)	13.06 (4.57)	370
Univariate *Fs*	1.48	2.40**		3.68***	2.10*		3.38***	5.77***	
Partial η^2	.01	.03		.03	.02		.04	.07	

Note: [ab] According to Dunnett's t-test, means differ significantly from retaliation and avoid trouble justification category. Univariate *Fs df* = 5, 392 in first grade; 5, 381 in second grade; 5, 363 in third grade.

*$p < .10$; **$p < .05$; ***$p < .01$.

Table 7. Concurrent Relations between Justification Categories and Mean Levels (and Standard Deviations) of Parent-Rated Emotional and Behavioral Problems

	First Grade			Second Grade			Third Grade		
Justification Category	Emotional	Behavioral	N	Emotional	Behavioral	N	Emotional	Behavioral	N
Retaliation & Avoid trouble	30.91 (5.51)	14.71 (2.29)	7	30.20 (4.15)	12.40 (1.82)	5	37.40 (7.91)[a]	15.88 (4.76)	8
Dichotomous reasoning	31.38 (5.71)	14.30 (3.15)	64	29.49 (5.66)	14.43 (3.22)	24	29.74 (5.49)[b]	13.63 (3.61)	19
Appeals to authority	31.78 (5.58)	13.35 (2.75)	84	31.41 (5.26)	13.15 (3.11)	62	30.45 (6.30)[b]	12.93 (3.36)	43
Story-specific outcome	30.20 (5.02)	13.58 (3.25)	101	30.45 (5.82)	13.42 (3.27)	173	30.54 (5.74)[b]	12.87 (2.87)	196
Generalized rule	29.96 (5.66)	13.84 (3.80)	52	30.97 (4.80)	13.05 (2.65)	39	29.56 (4.95)[b]	13.17 (3.07)	18
Generalized outcome	29.88 (6.60)	13.99 (3.24)	16	31.47 (4.40)	12.06 (2.97)	17	33.38 (4.98)[b]	13.00 (3.03)	16
Grand Mean	30.81 (5.51)	13.75 (3.19)	324	30.68 (5.49)	13.31 (3.14)	320	30.75 (5.89)	13.03 (3.09)	300
Univariate *Fs*	1.26	0.79		0.57	1.09		3.15*	1.50	
Partial η^2	.02	.01		.00	.01		.05	.02	

Note: [ab] According to Dunnett's t-test, means differ significantly from retaliation and avoid trouble justification category. Univariate *Fs df* = 5, 317 in first grade; 5, 313 in second grade; 5, 293 in third grade.

*$p < .01$.

duty teacher so he wouldn't get in trouble"; ignore: "Monkey . . . just kept playing, no one gets in trouble"), to adhere to a general rule (e.g., seek help: "You should always tell the duty teacher"; ignore: "When someone is mean, you should ignore them"), or to promote good outcomes (e.g., seek help: "Koala told the duty then . . . goat can go away so that the animals can still play"; ignore: "Because Monkey didn't let goat hurt his feelings and so they just kept happily playing").

Children became better able to offer more sophisticated justifications by second and third grades, and references to story-specific outcomes (e.g., ignoring the perpetrator so he won't bother you anymore or playing somewhere else to stop someone from getting hurt) increased by third grade to account for two-thirds of the justifications given. On the other hand, dichotomous reasoning (e.g., "Koala did a good thing and the others were mean") and appeals to authorities (e.g., "The duty teacher could talk to the children") declined over time.

These changes in children's justifications may reflect the complex developmental advances that are occurring at these grades in executive functioning, verbal ability, social cognition, and moral reasoning (Piaget, 1965; Selman 1980; Zelazo, Müller, Frye, & Marcovitch, 2003). These advances may facilitate children's ability to reflect on how others' thinking and behaviors can be managed and on the potential consequences of their own actions. Justifications that applied generally to prototypical situations (e.g., anticipating optimal consequences) were rare in this young sample but might be expected in older students. Our findings showed that direct references to future time increased in the children's justifications, particularly from first to second grades. In first and second grades, most children who gave dichotomous reasoning justifications gave no temporal orientation, while those who appealed to an authority focused on the immediate consequences. The majority of children who gave story-specific, generalized rule, and generalized outcome justifications focused on future consequences, particularly by second grade. Children who gave these more sophisticated justifications were also most likely to refer to the perspectives of multiple others or people in general at each grade level. References to the perspectives of multiple others also increased across grades, particularly for story-specific outcome justifications. By third grade, most children showed the ability to anticipate future consequences (62%) and take the perspectives of multiple others (64%) and the use of less complex justifications (unelaborated, retaliation, or avoiding trouble and dichotomous reasoning) was rare by this age.

Children who used the justifications that referred to retaliation or to getting others into trouble or avoiding it had higher levels of teacher-rated

emotional and behavioral problems in contrast to children who gave other justifications, particularly by second and third grades. It is possible that children who show observable behavioral problems both experience and expect more aggression from others and believe that actions that punish others are acceptable. Alternatively, aggressive children may try to avoid getting into trouble in order to protect themselves from angry peers. We were unable to separate the choices of avoiding trouble from responses that focused on getting someone else in trouble because of the low frequency of these justifications in our sample. Further research with clinical populations may improve our understanding of the mechanisms that relate the negative or hostile attributions that are often typical of aggressive children and also depressed and anxious children to their justifications in peer conflicts. We know that aggressive children are more likely to attribute hostile intentions to others' ambiguous actions (see Orobio de Castro, Veerman, Koops, Bosch, & Monshouwer, 2002), but there is less research on such hostile attribution biases in depressed and anxious children. Do clinically depressed or anxious young children articulate justifications that are passive (avoiding trouble, being kind or good, or appealing to an authority) or fail to develop more efficacious, assertive, or situation-specific justifications? Children dealing with emotional problems (e.g., depression, anxiety) may anticipate negative outcomes for themselves and try to avoid getting into trouble themselves.

Parent-rated emotional problems were related to justifications only at third grade, and parent-rated behavioral problems were unrelated. However, both of the hypothetical conflicts dealt with peer conflicts at school. Parents' ratings may better reflect home-based emotional and behavioral problems that are relatively independent of children's justifications for strategies used in school-based peer interactions. It may be important to tap context-specific justifications such as those that children use to justify their conflict resolution strategies in sibling conflicts.

Sex Differences in Strategy Choice and Justifications

Although some past research has found that boys choose more aggressive strategies (e.g., physical aggression or shouting) and girls choose more passive ones (e.g., withdrawing or ignoring) in response to hypothetical peer conflicts (e.g., Chung & Asher, 1996; Rose & Asher, 1999; Smith et al., 2001), we found no sex differences in the types of strategies that boys and girls chose as the "best" ways of handling conflicts. Methodological differences may be important in explaining these differences. Other studies (e.g., Chung & Asher, 1996; Rose & Asher, 1999) asked children to choose from

suggested alternatives what they "would do" or "have done" in peer conflicts. Although girls and boys have similar beliefs in and knowledge about what is *best* to do when they encounter peer conflict, they may differ in what they would do themselves. In addition, few sex differences were found in children's justification categories, and these were not differentially related to adjustment problem for girls or boys.

Limitations and Recommendations for Future Research

Our findings are based on the responses of a large, socioeconomically diverse sample of children. However, our use of only two scenarios with similar types of peer conflicts (provocations) limits the generalizability of our findings to other types of peer conflicts. Future research may consider incorporating conflicts that represent a broader range of issues (e.g., teasing or access to material goods). Our methodology was sensitive to the capacities of young elementary school children. By asking for their justifications in a guided interview and recording them verbatim, we hoped to reduce suggestibility and reading, role-playing, and memory demands. However, this methodology relies on children's verbal ability and could be limited by temperament differences (e.g., shyness). The verbal demands of this task could also limit the downward extension of this research to preschoolers or children who speak English as a second language. However, immaturity in verbal fluency alone did not explain differences in the justification categories. The highest mean difference in word count across justification categories in first grade was only 2.2 words (see footnote 1). Differences in mean word fluency across the justification categories were larger in second and third grades (about 9.5 words), suggesting that the negative effects of a lack of verbal fluency may increase over time; however, fluency was not consistently related to teacher or parent ratings of children's problems at any grade. In addition, the administration of this measure in small groups may have increased the likelihood that children will influence each other in giving a response. To reduce this possibility, children were asked to whisper their answers and were told that there were no wrong answers. It is also difficult for children to accurately imitate or copy justifications that they did not understand, so even when they gave the same strategy choice they had to rely on their own beliefs to justify it.

About two-thirds of the children in this study were in schools where a program designed specifically to reduce peer victimization was implemented (see Leadbeater et al., 2003), and all of the schools were implementing programs directed at the development of social skills. Few schools now exist that do not conduct some social skills development program, making develop-

mental changes and program effects hard to distinguish. While few program effects were found, children in the peer victimization program implemented here gave more justifications related to following general rules in first and second grades. These were consistent with the program which encourages children to use their WITS by *w*alking away, *i*gnoring bullies, *t*alking problems out, and *s*eeking help from an adult (Leadbeater et al., 2003). Investigating young children's rule-following justifications warrants further attention, as they may not be as goal-directed in their strategy choices as older children appear to be (e.g., Chung & Asher, 1996; Rose & Asher, 1999)

Finally, our data did not allow us to look at the independent contributions of justifications, temporal orientation, and perspective-taking because these variables were strongly associated with and derived from the same responses. The latter may have inflated their associations even though different coders rated each variable. It was also not possible to look at the role of specific justifications in predicting changes in children's emotional and behavioral problems, given the stability of these problems in early elementary school.

Implications

Considering young children's justifications for their negotiation strategies may help us to better understand and address risks for children who share the same behavior tendencies (e.g., help-seekers or withdrawn children) but whose motives create problems for them. Asking children for their justifications could also provide targets for cognitive-behavioral interventions that can help children who have problems resolving peer conflicts. Justifications may well be encoded in subtle but detectable communications. For example, the familiar whining complaint of "Eric's bugging me!" may be used as a threat to get Eric in trouble, make Eric go away, or evoke the needed assistance of an adult. Justifications may also be hidden in the silent but observable withdrawal of a child from peer interactions in the playground.

Children who tell on others with the aim of getting them in trouble or who rely excessively on adult intervention may differ from children who believe that adults can resolve peer conflicts or have the knowledge that children need to solve peer conflicts themselves. Similarly, children who withdraw from peer conflicts by ignoring aggressors may differ from those who believe that purposefully or actively ignoring a conflict will stop bad things from happening. Moreover, the reactions of peers and teachers to these strategies may reflect their own, frequently unacknowledged, interpretations of a child's motives. Adults often respond to requests for help with their own assumptions about a child's justifications, such as "Why are

you tattling?" or "What did you do that made your peer bother you?" Eliciting children's own justifications ("Why did you think that is the best thing to do?") and discussing not only alternate competent behaviors but also alternate justifications of the same behaviors may well encourage children to use strategies with more prosocial intent or purposeful social goals.

Evaluations of elementary school-based prevention programs have shown some success in reducing peer aggression and victimization and their negative consequences (Aber, Brown, & Jones, 2003; Kellam, Ling, Merisca, Brown, & Ialongo, 1998; Leadbeater et al., 2003; Olweus, 1991; Rahey & Craig, 2002; Stevahn et al., 2000). These programs have a variety of targets, including efforts to increase social skills, empathy, prosocial values, and behaviors and to reduce aggressive values and behaviors and bullying. However, it is difficult to know how children are incorporating such messages into the cognitive schema, scripts, or reasoning frames that guide their social goals in handling peer conflicts. It may also be necessary for competence-building or victimization-prevention programs to seek to understand children's reasoning about conflict resolution strategies in order to promote the use of developmentally more future-oriented, consequence-based justifications that reflect others' perspectives as well as their own. Adults may also need to be aware of and responsive to these differences in children's justifications. Understanding differences in children's justifications could enhance the objectives of and rationales for skills-based, social skills training programs. Focusing on improving perspective-taking skills and children's awareness of the future consequences of their actions in specific peer conflicts may help them to reason about and act in ways that reduce these peer conflicts in the long term. Understanding children's justifications or rationales for their behaviors in peer conflicts may also help teachers, counselors, and parents use children's approaches to peer conflicts and requests for help as teachable moments for directing children's attention to different perspectives and long-term, peaceful strategy choices.

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Appendix A: Relationship Questionnaire (Adapted from Schultz & Selman, 2000)

1. Goat and the Sandbox Story

Monkey, Dog, Panda, and Koala are all friends in the same class. They were playing in the sandbox. Goat, who is four years older, came over and starting teasing them. He says, "Look at the little babies playing in the sandbox."

A. Put your finger on the picture of the monkey. When Goat teased them *Monkey kept playing and did not pay attention to Goat.* Circle the face to show if you think what monkey did when Goat teased them was BAD, OKAY, GOOD, or EXCELLENT.
B. Put your finger on the picture of the dog. When Goat teased them *Dog stood up for himself and hit Goat.* Repeat direction.
C. Put your finger on the picture of the panda. When Goat teased them *Panda shouts "Get out of here!" at Goat.* Repeat direction.
D. Put your finger on the picture of the koala. When Goat teased them *Koala goes to get the duty teacher.* Repeat direction.
E. Look at the row with all the animals in it at the bottom of the page. Circle the picture of the animal who did the best thing when Goat teased them. Circle only *ONE* animal. (*REREAD all the animals' solutions in italics.*) THEN say, "Okay, I want you to THINK about *WHY THAT WAS THE BEST THING TO DO when the goat teased them. Whisper your answer to your helper so he or she can write it down.*

(Probes: *Why do you think that the animal you circled did the best thing when Goat teased them?*) (Assistant: WRITE THE ANSWER clearly and EXACTLY HOW THE CHILD SAYS IT ON THE ANSWER SHEET.)

2. The Wet Puppy Story

Turkey, Sea Lion, Leopard, and Llama are friends who were playing with their Yu-gi-oh cards. Wet Puppy, who was two years younger than the friends, came over and started shaking his fur on the friends, making them all wet.