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Anni Tamm, Pirko Tõugu & Tiia Tulviste

Department of Psychology, University of Tartu

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The Influence of Individual and Situational Factors on Children’s Choice of a Conflict Management Strategy

Anni Tamm, Pirko Töugu, and Tiia Tulviste

Department of Psychology, University of Tartu

Research Findings: The aim of the present study was to investigate the influence of individual and situational factors on nursery school children’s conflict management strategies. This observational study of triadic interaction was carried out among 69 children whose mean age was 48 months. The video-recorded data were coded for the type of conflict, the conflict initiator, and the conflict management strategy (aggressive, prosocial, or avoidance strategy). The results of the study showed that individual factors such as gender, age, and teacher-reported behavioral problems were not related to children’s conflict management strategies. Children’s conflict behavior was, however, associated with the type of conflict and the conflict partner’s strategy. Partner’s gender had no effect in the present study. Practice or Policy: The study suggests that, in addition to individual factors, situational factors should be taken into account when exploring children’s conflict management skills and planning interventions.

The purpose of the present study was to investigate the influence of individual (gender, age, and behavioral problems) and situational (type of conflict, partner’s gender, and partner’s strategy) factors on nursery school children’s conflict management strategies. Conflict was defined as a state of incompatible or opposing behaviors or goals (Laursen & Hafen, 2010). Several studies have addressed not only the frequency and intensity of conflicts but also conflict management or resolution skills (Collins & Laursen, 1992; Shantz, 1987). A skill of resolving interpersonal conflicts effectively is one of the important components of social competence. It has been found that children who use aggressive strategies for resolving conflicts at an early age continue using the same strategies systematically and normalize the use of aggression as they grow older (Keltikangas-Järvinen, 2001). Therefore, it is important to identify children at risk for having poor conflict resolution skills as early as possible so that preventive measures can be taken. To get a better understanding of the way in which children manage conflicts and which children might be at risk, the present study examined which individual and situational factors predict the use of aggressive, prosocial, and avoidance strategies for managing peer conflicts.

Correspondence regarding this article should be addressed to Anni Tamm, Department of Psychology, University of Tartu, Room 218, Näituse 2, 50409 Tartu, Estonia. E-mail: anni.tamm@ut.ee
INDIVIDUAL FACTORS

As with most research topics in psychology, it has been discussed whether there are gender differences in conflict resolution skills. However, because of methodological differences (the definition of conflict; the method of data collection, coding, and analysis), it is difficult to compare the results of previous studies. Walker, Irving, and Berthelsen (2002) found that 5-year-old boys suggested more aggressive strategies and girls more prosocial strategies for hypothetical conflicts. Westlund, Horowitz, Jansson, and Ljunberg (2008) observed 3- to 6-year-old children’s conflict management and found that gender differences were not stable. More specifically, their results showed that although 3-year-old girls resolved conflicts more effectively than boys of the same age, this difference was not present among 4- to 6-year-old children. Different results were reported by Baumgartner and Strayer (2008), who also conducted an observational study among 3- to 5-year-olds but found no gender differences in children’s conflict resolution. Similarly, Green, Cillessen, Rechis, Patterson, and Hughes (2008) found no gender differences in conflict resolution. Another study, conducted by Mayeux and Cillessen (2003), found that boys did not prefer aggressive strategies but instead suggested prosocial strategies most frequently.

However, there are several explanations for why girls are expected to use more prosocial and boys more aggressive strategies for resolving conflicts. For instance, it has been found that during the preschool years, girls have better verbal abilities than boys (Bornstein, Hahn, & Haynes, 2004; Eriksson et al., 2012). Therefore, because of their poorer verbal skills, boys might be more likely than girls to use physical aggression. Moreover, as is stereotypically believed and as has been confirmed by some researchers, girls are generally more prosocial and less aggressive than boys (Baillargeon et al., 2007; Persson, 2005; Zimmer-Gembeck, Geiger, & Crick, 2005). Previous studies have also shown that there is more conflict in boys’ groups than in girls’ groups (Miller, Danaher, & Forbes, 1986; Tulviste & Koor, 2005) and that boys talk about moral rules more often than girls (Tõugu & Tulviste, 2010).

In addition to gender, age influences the resolution of conflicts so that children start using more prosocial and less aggressive strategies for resolving conflicts as they get older (Chen, Fein, Killen, & Tam, 2001; meta-analysis by Laursen, Finkelstein, & Townsend Betts, 2001; Mayeux & Cillessen, 2003; Takahashi, Koseki, & Shimada, 2009). Some empirical studies, however, have found age-related improvement in conflict resolution skills only among boys (Westlund et al., 2008) or among neither boys nor girls (Baumgartner & Strayer, 2008). Baumgartner and Strayer (2008) found that younger children reacted to peer conflict with intense expression of emotion more often than older children, but there were no age differences in other types of reactions (counterattack, flee, negotiate, and seek help).

Theoretical perspectives suggest that age does have an influence on conflict resolution skills. One simple explanation is that children gain more experience with age, and therefore their conflict resolution skills improve. Interaction with peers, especially during conflicts, has been claimed to be beneficial for social development since the early works of Piaget (1932). Clearly, in addition to their social development, children’s cognitive abilities improve with age too. For instance, as children grow older, their understanding of others’ thoughts, intentions, and feelings advances (Hu, Chan, & McAlonan, 2010). Theory of mind development, in turn, might lead to an increased use of prosocial strategies for resolving conflicts.

Another individual factor of interest is children’s behavioral problems. In the present study, children’s behavioral problems refers to nursery school-related behavior problems, such as
being cruel and making fun of others or being disobedient. Previous studies have investigated how conduct problems, or specifically aggressive tendencies, affect the resolution of conflicts. Webster-Stratton and Woolley Lindsay (1999), who defined conduct problems as aggressive, noncompliant, and oppositional behavior, found that children with conduct problems suggested fewer positive conflict resolution strategies and more negative strategies. Research that has examined the influence of only aggressiveness has generally found that aggressively behaving children also resolve conflicts aggressively (Keltikangas-Järvinen, 2001; Malik, Balda, & Punia, 2006; Pakaslahti & Keltikangas-Järvinen, 1996; Takahashi et al., 2009), although some studies have found this to be true only for girls (Green et al., 2008) or have not found such a relationship at all (Baumgartner & Strayer, 2008).

Webster-Stratton and Woolley Lindsay (1999) explained the relationship between conduct problems and the use of aggressive strategies by deficient processing of social information among children with conduct problems. Their study showed that children with conduct problems overestimated their social skills and attributed more hostile intent to others than those without conduct problems. Regarding aggressively behaving children, it has been found that these children focus only on certain aspects and choose inappropriate and aggressive goals (Akhtar & Bradley, 1991; Pakaslahti, 2000).

SITUATIONAL FACTORS

In addition to individual factors, the present study set out to examine the influence of three situational factors: type of conflict, partner’s gender, and partner’s conflict management strategy. Relatively few studies could be found that have examined the influence of these factors on children’s conflict behavior. There is some evidence that children choose their conflict resolution strategy on the basis of the conflict type. Walker et al. (2002), for instance, found that the majority of children would appeal to authority in ambiguous provocation situations (another child’s intentions are ambiguous) and use a simple directive in intentional provocation situations. In social expectation situations (i.e., sharing and turn taking), girls would wait and boys would appeal to authority. In situations of peer group entry (attempting to enter the ongoing activity of peers), children said that they did not know what they would do. Additional support for the influence of the type of conflict was provided by Ljungberg, Horowitz, Jansson, Westlund, and Clarke (2005), who found children’s reconciliatory behavior to be related to the cause of the conflict. Some studies, however, have not found a relationship between the issue of the conflict and its resolution strategy (Iskandar, Laursen, Finkelstein, & Fredrickson, 1995).

Regarding the conflict partner’s gender, the results of prior studies are quite inconsistent and do not give a clear understanding of how it influences children’s choice of a conflict resolution strategy. For instance, Green et al. (2008) found that girls offered more prosocial strategies when their partner was a girl, whereas Rubin and Krasnor (1983) reported that girls would use more prosocial strategies when trying to acquire a toy from a boy. Another study found that boys would use more aggressive strategies when trying to enter a girls’ group and that girls would withdraw in situations of entering a boys’ group (Walker et al., 2002). The influence of partner’s gender is questionable based on Westlund et al.’s (2008) study, which found that children were not more likely to reconcile after conflicts with children of the same gender than after conflicts with children of the opposite gender.
The influence of a partner’s strategy has been quite closely examined by Thornberg (2006). His main findings were that children proposed more complex and reciprocal strategies when their opponent used justification. Assertive and aggressive strategies were preferred in situations when the opponent used physical aggression. Similar findings have been reported by Keltikangas-Järvinen (2001), whose study was done with school-age children: If the situation was provocative of aggression, both sociable and aggressive children suggested aggressive strategies.

Many theories support previous findings that children’s conflict resolution strategies are affected by the situation. According to Crick and Dodge’s (1994) social information processing model, children use social cues in responding to social situations. Children attend to appropriate cues, which they encode and interpret. The way the situation is interpreted influences the selection of goals and behaviors. The model also stresses the importance of past memories of social interactions in influencing the processing of social information. For instance, children might select a goal or a strategy that led to positive outcomes in a similar situation in the past.

A similar theory was proposed by Rubin and Krasnor (1986). They claimed that in familiar situations, children behave according to social scripts that are stored and evoked by specific cues. In novel situations, however, script-driven behavior is precluded and children select goals and strategies by examining the environment. Contextual factors, such as the partner’s gender, age, social status, and familiarity; general venue; population density; and visibility, are suggested to influence the strategy children choose for resolving conflicts.

THE PRESENT STUDY

The present study aimed to investigate how both individual (gender, age, and behavioral problems) and situational (type of conflict, partner’s gender, and partner’s strategy) factors influence nursery school children’s conflict behavior. Also of interest were questions such as the following: Around which issues do conflicts arise more frequently? Do boys’, girls’, and mixed-gender triads differ in the frequency of conflicts? Do boys have more behavioral problems than girls? What types of conflict management strategies are used most frequently? In the current study, conflict management strategies were divided into three categories: aggressive, prosocial, and avoidance. The article thus talks about conflict management instead of resolution. When a child uses an avoidance strategy, it might be more accurate to say that he or she is managing, not resolving, a conflict.

Unlike many previous studies, which have used interviews or questionnaires, the present study used observational data. As Rubin and Krasnor (1992) claimed, interviews enable one to study how children think about conflicts, whereas observational data show how they actually solve them. Additional limitations of interviews might be the influence of social desirability on given answers and the limited verbal skills of younger children. The present study aimed to overcome these limitations and to improve understanding of how children manage conflicts. Based on previous findings, it was hypothesized that boys would use more aggressive strategies than girls, who in turn would use more prosocial strategies than boys. Regarding the influence of age, it was predicted that older children would use more prosocial strategies than their younger peers, who would use more aggressive strategies than older children. In addition, children with behavioral problems were expected to use more aggressive strategies than those without behavioral problems, who in turn would use more prosocial strategies than children with behavioral problems.
Because of the lack of similar research, nondirectional hypotheses were put forward on the influence of situational factors. It was hypothesized that the type of conflict, the partner’s gender, and the partner’s strategy would influence the use of aggressive, prosocial, and avoidance strategies.

**METHOD**

**Participants**

The observation was carried out in three different nursery schools in Tartu, Estonia. Community nursery schools that children from all over town attend were contacted, and parental consent was obtained with the help of nursery teachers. The sample consisted of 69 children, of whom 33 were boys and 36 were girls. The mean age of the children was 48 months ($SD = 5.29$, min = 38 months, max = 62 months). All participants were Caucasian, and all except for two reported speaking Estonian as their mother tongue. The education of the parent ranged from primary school to a university degree.

**Teachers’ Evaluation of Students’ Conduct (TESC; Rohner, 2005)**

Nursery school teachers responded to the Estonian-language version of the TESC (Tulviste & Rohner, 2010) to evaluate children’s conduct in the nursery. The original measure consists of 18 items of school-related behavioral problems, such as “Refuses to do school work,” “Is cruel and makes fun of others,” and “Is disobedient.” Each item is rated on a 5-point Likert-type scale ranging from 5 (**very often**) to 1 (**almost never**). As the questionnaire was used for nursery school children, the original scale was revised and one item (“Cheats”) was eliminated. Possible scores ranged from 17 (no or only minimal conduct problems) to 85 (maximum/very serious conduct problem). Scores at or above 51 indicate the presence of significant conduct problems. Prior research has shown the TESC to be a reliable and valid measure for cross-cultural research (Rohner, 2005). It has, however, not been previously applied to nursery school children. In the present study, Cronbach’s alpha was .98.

**Observational Data**

Nursery schools were visited several times for collecting the observational data and making video recordings. During the first visits, researchers talked to the children during free play and answered their questions about the video-recording equipment. After that, children were asked to pick two friends to play with. Nursery school teachers helped children to form triads if it was needed. Participation was voluntary. Children were told that the researchers would stay in the same room with them but had to work and could not play with them. In some cases, the filming was paused and the researchers reminded the children of this. Children played a freely chosen game in their everyday playroom for about 20 min while wearing radio transmitters to improve the quality of the recorded sound. At the same time, other children played outside with the teachers or participated in an organized activity in another room. The mean length of one recording session was 15.7 min. The total length of recorded material was about 8 hr and 15 min.
Coding of Conflicts

Based on previous studies, a coding system was developed for analyzing video-recorded interactions and transcripts. The coding system involved three stages: determining the type of conflict, identifying the initiator of the conflict, and analyzing the management of the conflict.

**Stage 1: Determining the Type of Conflict**

Conflicts were divided into six categories that are common in children’s interactions and that have been used in previous studies (e.g., Baumgartner & Strayer, 2008; Green et al., 2008; Walker et al., 2002; see Table 1).

Conflict was defined as a state of incompatible or opposing behaviors or goals (Laursen & Hafen, 2010). Oppositional behavior from at least one child was required to constitute a conflict. Therefore, for example, a situation in which two children fought over a toy (their goals were incompatible) was analyzed, but a situation in which one child kindly gave a toy to another child (their goals were compatible) was not.

Incidents of play fighting were also included in the analysis to reduce the observer’s subjectivity in deciding whether children were just playing or having a conflict. Studies have shown that observers might not tell the difference between real fighting and play fighting (Schäfer & Smith, 1996) and that play fighting can develop into real fighting (Smith, 1997; Smith, Hunter, Carvalho, & Costabile, 1992).

Situations in which there was a conflict between three children and it was not possible to identify the two parties were excluded from the analysis. In addition, situations in which a conflict did not belong to any previously listed category were not included in the analysis.

**Stage 2: Identifying the Initiator of the Conflict**

The initiator of the conflict was the child who created the situation in which there was a conflict between individuals’ interests (see Table 2). Children’s intentions were, however, taken into account; for instance, the initiator was a child who hurt another child on purpose, but not a child who did so by accident.

**TABLE 1**

<table>
<thead>
<tr>
<th>Type of conflict</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflict over group formation</td>
<td>Mihkel is playing with cars. Siim comes near him. Mihkel: “Don’t come! Go and play your own game!”</td>
</tr>
<tr>
<td>Conflict over object acquisition</td>
<td>Sandra takes a toy wolf. Triin starts grabbing it out of Sandra’s hands.</td>
</tr>
<tr>
<td>Conflict over object sharing</td>
<td>Robert and Kert are playing together with a toy. At one point, Kert says, “Don’t!” and pushes Robert’s hand away from the toy.</td>
</tr>
<tr>
<td>Conflict over decision making</td>
<td>Kadi: “Let’s put that on to her.” Pille: “No, I don’t want to.”</td>
</tr>
<tr>
<td>Name calling</td>
<td>Marko: “You are a singing lesson!” Raul: “No, you are!”</td>
</tr>
<tr>
<td>Arguing</td>
<td>Helen: “White can’t be seen.” Merili: “Yes, it can, if you push harder [on the pencil].”</td>
</tr>
</tbody>
</table>
Stage 3: Analyzing the Management of the Conflict

Both children’s strategies were coded in the present study. The selection of categories was based on previous studies (a meta-analysis by Laursen et al., 2001) and on an initial analysis of the observational data. Strategies for conflict management were divided into three mutually exclusive categories (see Table 3). That means that a child could not, for instance, be prosocial and aggressive at the same time. Nevertheless, these strategies are not treated as two ends of one dimension: Being nonaggressive does not necessarily mean that one is prosocial.

The strategy that was used last and that ended the conflict was used for analyses. A conflict was considered to have ended when at least one of its parties walked away or resumed the previous activity or started a new one. In the case of teasing and arguing, a conflict ended when neither party teased or argued with the other anymore. The coding of a conflict ended with marking down its duration.

TABLE 3
Types of Conflict Management Strategies

<table>
<thead>
<tr>
<th>Type of strategy</th>
<th>Description and examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggressive</td>
<td>A child might behave verbally (teasing, insulting) and/or in a physically aggressive way (hitting, pushing). A child might have a hostile attitude and a desire to dominate others and impose his or her will upon them. For example, Maarja says, ‘‘I’ll do it myself!’’ and grabs a doll out of Hanna’s hands; Robert: ‘‘You’re a cheapskate!’’</td>
</tr>
<tr>
<td>Prosocial</td>
<td>A child is empathic, caring, helpful, and/or cooperative. A child stands for his or her needs but does not harm others at the same time. A child is considerate and explains his or her behavior and wishes. For example, Kadi: ‘‘But everybody can turn [the page], it’s not yours!’’ Triin: ‘‘No, I want [to color] with these. You can take the other ones if you want to.’’</td>
</tr>
<tr>
<td>Avoidance</td>
<td>A child gives in easily to the wishes of others by agreeing with their decisions and/or by walking away and/or by disregarding others. A child might display shy and/or timid behavior or might just want to avoid a conflict. For example, Kristiina starts playing in a play kitchen but stops right away after being told by another child that she cannot be there; Siim simply walks away after being told that he cannot join in the other two boys’ game.</td>
</tr>
</tbody>
</table>
Reliability of Analysis

A total of 30% of the material was double-coded for reliability by a second coder. The second coder randomly selected one DVD and coded all of the data on that DVD. Interrater reliability was assessed with Cohen’s kappa. Cohen’s kappa was 0.57 for detecting a conflict, 0.64 for determining the type of conflict, 0.76 for identifying the initiator of the conflict, and 0.71 for analyzing the management of the conflict. According to Landis and Koch’s (1977) guidelines, a kappa of 0.41–0.6 is considered moderate and 0.61–0.8 substantial.

RESULTS

The data were analyzed in SPSS 15.0. First descriptive and dispersion analyses were performed, after which the hypotheses were tested using a multinomial logistic regression analysis.

Descriptive Statistics and Analysis of Variance

Conflicts

The total number of conflicts was 195. The mean duration of a conflict was 11.44 s ($SD = 24.0$, min = 1 s, max = 297 s), and the mean number of conflicts in one triad was 10.25 ($SD = 4.63$, min = 1, max = 19). A comparison of the number of conflicts in boys’ ($N = 57$), girls’ ($N = 85$), and mixed-gender ($N = 53$) groups indicated that there was a statistically significant difference, $F(2, 192) = 34.94$, $p < .001$, $\eta^2 = .27$. The Tukey post hoc test showed that all three group means differed significantly from one another. The number of conflicts was greatest in triads of only girls ($M = 12.64$, $SD = 4.48$) and lowest in mixed-gender triads ($M = 6.83$, $SD = 3.61$). The mean number of conflicts in boys’ groups was 9.88 ($SD = 3.51$).

The rate of conflict. For each child, the rate of conflict was calculated by dividing the total time a child was filmed by the number of conflicts that the child participated in (see Table 4). Children’s mean conflict rate was 6.6 ($SD = 6.38$, min = 1.10, max = 35.60), which means that

| TABLE 4 |
|-----------------|-----------|-----------|-----------|
|                | Boys     |           | Girls     |           | Total      |           |
| Factor         | M        | SD        | M        | SD        | M          | SD        |
| Age            | 48.52    | 4.27      | 49.14    | 6.12      | 48.84      | 5.29      |
| Rate of conflict$^a$ | 7.18      | 7.27      | 6.01     | 5.40      | 6.60       | 6.38      |
| TESC           | 35.85$^*$ | 19.43$^*$ | 24.61$^*$ | 13.26$^*$ | 29.99      | 17.33     |

Note. TESC = Teachers’ Evaluation of Students’ Conduct.

$^a$Indicates after how many minutes a child participated in a new conflict.

$^*$Significantly different at the .01 level.
on average a child participated in a conflict every 6.6 min. There were no gender or age differences in the rate of conflict. The most frequent type of conflict were object sharing and arguing (both constituting 23% of all conflicts) and decision making (22%). The least frequent type of conflict was group formation, constituting only 5% of all conflicts.

**TESC Scores**

Children’s mean TESC scores are presented in Table 4. The mean TESC score was 29.99 (SD = 17.33, min = 17, max = 81). Seventeen children scored the minimum of 17 on the questionnaire. One child had a score of 81, which is close to the maximum of 85. Only nine children scored above 51, which indicates the presence of behavioral problems. A comparison of boys’ and girls’ TESC scores indicated that there was a statistically significant difference, which, because of a violation of the assumption of homogeneity of variance, is conveyed by the Welch F: F(1, 55.85) = 7.73, p = .007, η² = .11. The mean TESC score was 35.85 (SD = 19.43) for boys and 24.61 (SD = 13.26) for girls.

A correlation analysis showed that there was no statistically significant relationship between children’s TESC scores and their frequency of conflicts. In addition, no relationship was found between a child’s TESC score and his or her age. A statistically significant difference was, however, found between the mean TESC scores of children who participated in conflicts and children who had no instances of conflict. Because of a violation of the assumption of homogeneity of variance, the difference in TESC scores is conveyed by the Welch F: F(1, 52.29) = 13.17, p = .001, η² = .03. The mean score of children who participated in conflicts (M = 30.95, SD = 18.0) was higher than the mean score of those who did not participate in any conflicts (M = 21.43, SD = 3.41). Nevertheless, these results need to be interpreted carefully; the number of children who participated in conflicts was 62, whereas the number of children who had no instances of conflict was only 7.

**Multinomial Logistic Regression**

**Individual Factors**

For examining the influence of individual factors (gender, age, and behavioral problems) on conflict management strategies, we determined children’s main conflict management strategies. Previous studies have used different approaches, such as analyzing only the first conflict a child generated (Chen et al., 2001) or including only those children who participated in at least three conflicts (Baumgartner & Strayer, 2008). In the present study, a child’s main strategy was the one that he or she used most frequently, regardless of the number of conflicts he or she was involved in. A total of 23% of children (N = 16) were excluded from the analysis, as they did not participate in conflicts or had no main strategy (they used different strategies equally). Therefore, the influence of individual factors on children’s main conflict management strategies was investigated in a sample of 53 children. Nearly half of the children (49%) had a prosocial strategy as their main strategy of managing conflicts. However, 38% of children most frequently used aggressive behavior, and 13% of children used avoidance behavior. Some gender differences were found in children’s main strategies (see Table 5). A multinomial logistic regression
analysis, however, indicated that these differences were not statistically significant. Age and behavioral problems were also not found to have an effect on a child’s main strategy.

### Situational Factors

A multinomial logistic regression analysis was performed twice to examine the influence of situational factors (type of conflict, partner’s gender, and partner’s strategy) on children’s conflict management strategy (the last strategy that a child used). The first time the dependent variable was the initiator’s strategy, and the second time it was the strategy of the partner of the initiator. Out of 195 conflicts, only 6 were managed by the initiators using an avoidance strategy. This number of instances was considered too small to examine when an avoidance strategy was used by the initiators of conflicts, and these instances were therefore excluded from further analyses.

When examining the influence of situational factors on the initiator’s last used strategy, we chose an aggressive strategy as the reference category because it was the most frequently used by the initiators (64% of conflicts). The initiator’s strategy was significantly associated with type of conflict and partner’s strategy (see Table 6). Compared to arguing, the relative risk of using a prosocial rather than an aggressive strategy decreased by .28 ($p = .023$) for object acquisition, .23 ($p = .004$) for object sharing, and .14 ($p = .002$) for name calling. In other words, in situations of object acquisition, object sharing, and name calling, the initiators of conflicts were more likely to respond with an aggressive strategy than with a prosocial strategy. For partner’s prosocial strategy relative to an avoidance strategy, the relative risk of responding with a prosocial strategy rather

<table>
<thead>
<tr>
<th>Main strategy</th>
<th>Boys % (n)</th>
<th>Girls % (n)</th>
<th>Total % (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggressive</td>
<td>33.3 (9)</td>
<td>42.3 (11)</td>
<td>37.7 (20)</td>
</tr>
<tr>
<td>Prosocial</td>
<td>55.6 (15)</td>
<td>42.3 (11)</td>
<td>49.1 (26)</td>
</tr>
<tr>
<td>Avoidance</td>
<td>11.1 (3)</td>
<td>15.4 (4)</td>
<td>13.2 (7)</td>
</tr>
</tbody>
</table>

### Table 5

**Gender Differences in Main Conflict Management Strategies**

<table>
<thead>
<tr>
<th>Initiator’s strategy</th>
<th>B (SE)</th>
<th>Odds ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prosocial vs. aggressive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of conflict</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Object acquisition</td>
<td>-1.274* (.560)</td>
<td>0.280</td>
</tr>
<tr>
<td>Object sharing</td>
<td>-1.472** (.515)</td>
<td>0.230</td>
</tr>
<tr>
<td>Name calling</td>
<td>-1.967* (.648)</td>
<td>0.140</td>
</tr>
<tr>
<td>Arguing</td>
<td>0a</td>
<td></td>
</tr>
<tr>
<td>Partner’s strategy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner prosocial</td>
<td>1.187** (.400)</td>
<td>3.276</td>
</tr>
<tr>
<td>Partner avoidance</td>
<td>0a</td>
<td></td>
</tr>
</tbody>
</table>

*a Base level against which other levels are compared.*
than with an aggressive one increased by a factor of 3.28 ($p = .003$). Group formation, decision making, partner’s gender, and partner’s aggressive strategy had no effect on the initiator’s strategy. The goodness of fit of the model was assessed using Pearson’s chi-square: $\chi^2(df = 41, N = 189) = 58.05, p = .041$.

When examining the influence of situational factors on the initiator’s partner’s last used strategy, we chose a prosocial strategy as the reference category because it was the most frequently used by the initiators’ partners (49% of conflicts). Similarly to the initiator’s strategies, their partners’ strategies were associated with type of conflict and initiator’s strategy (see Table 7). Compared to the initiator’s prosocial strategy, the relative risk of responding with an aggressive strategy rather than with a prosocial one increased by a factor of 3.34 ($p = .017$) for the initiator’s aggressive strategy. For the initiator’s aggressive strategy relative to a prosocial strategy, the relative risk of using an avoidance strategy rather than a prosocial one increased by 3.36 ($p = .003$). In other words, in situations in which the initiator used an aggressive strategy, the partner was more likely to respond with aggressive or avoidance strategies than with a prosocial strategy. The partners of the initiators also responded with an avoidance strategy rather than with a prosocial one in situations of object sharing: Compared to arguing, the relative risk of using an avoidance strategy rather than a prosocial one increased by 3.26 ($p = .027$) for object sharing. Group formation, object acquisition, decision making, name calling, and the initiator’s gender had no effect on the initiator’s partner’s strategy. The goodness of fit of the model was assessed using Pearson’s chi-square: $\chi^2(df = 60, N = 189) = 64.64, p = .318$.

### DISCUSSION

The present study examined the influence of individual (gender, age, and behavioral problems) and situational (type of conflict, partner’s gender, and partner’s strategy) factors on nursery school children’s conflict behavior. The results provide no support for the hypotheses on the influence of individual factors: Neither gender, age, nor behavioral ratings by teachers were found to have an effect on the management of conflicts. In line with the hypothesis on the influence of

<table>
<thead>
<tr>
<th>Partner’s strategy</th>
<th>B (SE)</th>
<th>Odds ratio</th>
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<tbody>
<tr>
<td>Aggressive vs. prosocial</td>
<td></td>
<td></td>
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<tr>
<td>Initiator’s strategy</td>
<td></td>
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<tr>
<td>Initiator aggressive</td>
<td>$-1.207^*$ (.506)</td>
<td>3.343</td>
</tr>
<tr>
<td>Initiator prosocial</td>
<td>$0^*$</td>
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<tr>
<td>Avoidance vs. prosocial</td>
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<tr>
<td>Type of conflict</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Object sharing</td>
<td>$1.183^*$ (.534)</td>
<td>3.264</td>
</tr>
<tr>
<td>Arguing</td>
<td>$0^*$</td>
<td></td>
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<tr>
<td>Initiator’s strategy</td>
<td></td>
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</tr>
<tr>
<td>Initiator aggressive</td>
<td>$1.211^{**}$ (.402)</td>
<td>3.357</td>
</tr>
<tr>
<td>Initiator prosocial</td>
<td>$0^*$</td>
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$^*$Base level against which other levels are compared.
situational factors, it was found that type of conflict and partner’s strategy influenced children’s choice of a conflict management strategy.

Individual Factors

The findings thus suggest that there are no gender differences in the rate of conflicts and in conflict management strategies. It was, however, found that boys’, girls’, and mixed-gender groups differed in the number of conflicts: The number of conflicts was greatest in girls’ groups and lowest in mixed-gender groups. These results contradict previous findings that demonstrated that boys tend to have more conflicts than girls (Miller et al., 1986; Tulviste & Koor, 2005) and that they propose different solutions to conflict situations than girls (Walker et al., 2002). Discrepancies between the results are likely to be due to methodological differences. Many previous studies used either interviews or questionnaires to collect the data. As mentioned by Rubin and Krasnor (1992), these types of studies demonstrate how children think about conflicts rather than how they actually resolve them. Hence, it might be that there are gender differences in how children think about conflicts but not in the way they resolve them in real life. For instance, children might be more aware of gender roles and social expectations when responding to hypothetical conflict situations compared to managing conflicts in real life.

The absence of gender differences in nursery school children’s conflict management strategies can in part be explained by Ostrov and Keating’s (2004) findings. Their results showed that whereas boys exhibited more physical and verbal aggression than girls, girls were more relationally aggressive than boys. Therefore, the gender difference might lie in the type of aggression instead of the frequency of aggressive acts. The present findings provide no support for stereotypical beliefs regarding gender differences in aggressive and prosocial behavior either. On the contrary, although the result was not statistically significant, it was found that although the majority of boys had a prosocial strategy as their main strategy of conflict management, there was an equal number of girls with a prosocial and aggressive main strategy.

The results also indicate that there are no differences in conflict management strategies among children ages 3, 4, and 5. It could be that differences in linguistic and cognitive abilities that are related to conflict management skills among children ages 3, 4, and 5 are too small to cause differences in the way these children manage conflicts. According to Piaget (1954), children at the age of the participants in the present study are in the preoperational stage, and their thinking is still egocentric. Thus, the way they manage conflicts should really not be that different.

Although children’s TESC scores were associated with their conflict participation, no differences in conflict behavior were found between children with and without teacher-reported behavioral problems. Before we propose explanations, it should be mentioned that only 9 children out of 69 had behavioral problems in the present study. It might be that a relationship between behavioral problems and conflict management strategies was not found because of the very small number of misbehaving children. However, it is possible that no such relationship exists. Although Webster-Stratton and Woolley Lindsay (1999) found that children with conduct problems had deficient social information processing and suggested fewer positive and more negative conflict resolution strategies, their sample included a clinic-referred group of children, whereas the present study involved only typically developing children. It could be that children with mild
behavioral problems do not have deficiencies in social information processing and do not necessarily use aggression to manage conflicts.

Situational Factors

The results of the study indicated that nursery school children’s conflict management strategies were related to the type of conflict and the partner’s strategy but not to the partner’s gender. Regarding the issue of conflict, it was found that the initiators of the conflict were more likely to respond with aggressive strategies than prosocial ones in situations of object acquisition, object sharing, and name calling. The partners of the initiators tended to respond with avoidance strategies rather than with prosocial strategies during object sharing. These findings are in accordance with Crick and Dodge’s (1994) and Rubin and Krasnor’s (1986) theories but can be explained in several ways. One explanation is that, as conflict over object sharing was one of the most frequent types of conflict, children have more experience in its management. Therefore, based on those experiences, they might know which strategies are more successful in that particular situation. However, conflict over decision making was almost as frequent as that over object sharing, but children did not prefer one strategy over another in those situations. Thus, another explanation is that children’s goals in different situations are not equally important to them. It has been found that young children understand the rights of ownership and possession (Eisenberg-Berg, Haake, & Bartlett, 1981; Eisenberg-Berg, Haake, Hand, & Sadalla, 1979) and tend to control the use of objects by others (Hay & Ross, 1982). Children’s verbalizations during conflicts over object acquisition and sharing in the present study illustrate this well: “No! This is my car!” “No! My train!” “This is mine! Give it to me!” “What are you doing? This is mine!” “This is my baby!” Hence, as the goal of having control over objects is important to children, they might choose their strategies more carefully in situations of object acquisition and object sharing. In other conflict situations, they might not have such a clear or important goal, which means that they might not choose their strategies so carefully.

Regarding a partner’s strategy, the results of this study generally support those of previous studies (e.g., Keltikangas-Järvinen, 2001; Thornberg, 2006). It was found that the initiators of conflicts tended to respond with prosocial rather than with aggressive strategies when their partner used a prosocial strategy. The partners of the initiators were more likely to respond with aggressive and avoidance strategies than prosocial ones when the initiator used an aggressive strategy. These findings suggest that a partner’s strategy is an important social cue that children use to choose their strategy of response. More specifically, a partner’s calm tone of voice and explanations for his or her behavior or needs (e.g., “But everybody can turn [the page], it’s not yours!” “You can take [building blocks] from there. This one’s for me, I went to get it.” “No, I want [to color] with these. You can take the other ones if you want to.”) might be the cues that tell a child that a prosocial strategy might be more appropriate than an aggressive one. Cues such as a partner’s hostile verbalizations (e.g., “You’re a cheapskate!” “You’re bad! I’m not your friend anymore!”) or physical aggression might be relied on when responding with an aggressive or avoidance strategy rather than with a prosocial one. It is also likely that, as Crick and Dodge (1994) claimed, children use their past memories of social interactions as well. They might know from past experience which cues to use and which strategies are more effective, for example when another child is behaving aggressively.
Unlike type of conflict and partner’s strategy, partner’s gender had no effect on children’s conflict behavior. On the basis of Crick and Dodge’s (1994) social information processing theory and studies on peer interaction (e.g., Fabes, Martin, & Hanish, 2003), it might be inferred that children have little experience with peers of the opposite gender; therefore, they might not know whether different strategies should be used with same- and opposite-gender peers. Another explanation is that instead of partner’s gender, children take into account friendship status. As children were given the opportunity to pick their playmates, it is likely that most triads were composed of friends. It has been found that children have fewer conflicts with their friends and manage conflicts with friends differently than those with non-friends (Vespo, 1991; Vespo & Caplan, 1993). Furthermore, Peets, Hodges, Kikas, and Salmivalli (2007) found that children propose more hostile strategies and attribute more hostility to a target peer when their hypothetical partner is their enemy rather than a friend. This might also explain our finding that children with behavioral problems were not more likely to use aggressive strategies than those without behavioral problems. Nursery teachers assessed children’s behavior in a larger group, whereas we examined their behavior in small groups that were probably composed of friends. It is likely that children are less aggressive toward their friends than toward non-friends.

Evaluation of the Study

A major strength of this study is its use of observational data. Children were observed in their natural environment, and the management of real conflicts could be examined. Although it could be claimed that children’s behaviors were influenced by the presence of the observer, this did not seem to be the case with conflict behavior. During conflicts, children’s focus was on their management and not on the camera.

The study has, however, a few limitations, too. The observational method did not enable the investigation of all of children’s conflict management strategies, as some children did not participate in any conflicts while being filmed. The method of determining a child’s main strategy of conflict management could also be improved. A number of children used different strategies equally. Thus, as it was not possible to identify their main strategy, they were excluded from the analysis. At the same time, however, a few children who participated in only one conflict were included in the analysis. The limitations of such a method are recognized.

Conclusions and Implications

The main finding of the present study was that children’s conflict management strategies were related to situational factors such as type of conflict and partner’s strategy. Neither gender, age, behavioral problems, nor partner’s gender had an effect. Nevertheless, it should not necessarily be concluded that only situational factors influence conflict management. It is possible that individual and situational factors interact so that there are individual differences in how situational factors influence the choice of a conflict management strategy. Future studies could examine this issue and also look at the role of other individual (e.g., personality) and situational (e.g., the presence of adults, open or closed setting) factors. It would also be important to examine the influence of methodological issues on the results. In addition to the data collection method, a number of other factors could have a significant impact on the findings: whether conflict is defined as a
two-unit or a three-unit exchange, which conflicts are examined, how children’s strategies are categorized, and how the data are analyzed. A meta-analysis of existing research could examine these issues and thus make it easier to compare the results of different studies.

According to the present results, however, situational factors need to be taken into account when conducting empirical research on conflict resolution as well as when planning interventions. As children’s strategies were associated with a partner’s strategy, interventions could be planned for the entire group of children instead of selecting a few individuals and labeling them as children with poor social skills. It is also suggested that role-plays be used to teach children how to resolve different types of conflicts. Crick and Dodge (1994) proposed that past memories of social interactions influence the management of conflicts. Therefore, practicing the resolution of different types of conflict might have a positive effect on children’s strategies in real life.

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