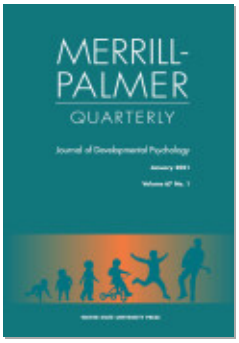
Lying to Conceal a Group Transgression in Middle to Late Childhood



Angela D. Evans, Victoria W. Dykstra, Kaila Bruer, Heather L. Price

Merrill-Palmer Quarterly, Volume 67, Number 1, January 2021, pp. 75-93 (Article)

Published by Wayne State University Press
DOI: *https://doi.org/10.13110/merrpalmquar1982.67.1.0075*

Lying to Conceal a Group Transgression in Middle to Late Childhood

Angela D. Evans and Victoria W. Dykstra *Brock University*
Kaila Bruer *University of Regina*
Heather L. Price *Thompson Rivers University*

Lies to benefit the collective are common in adult contexts; however, less is known about children's willingness to lie for the collective. The present study examined 7- to 11-year-old children's tendency to lie to conceal a group transgression. Children ($N = 408$) participated in a competition in small groups during which the group leaders encouraged children to cheat by falsely inflating their group's score. Groups were randomly assigned to Active or Passive Transgression conditions, where children in the Active condition were more involved in cheating compared to those in the Passive condition. Children were interviewed about the event individually, and 83% lied to conceal their group's transgression. Children who truthfully disclosed cheating were most likely to place blame on others rather than take the blame themselves. Results indicate that children are highly motivated to lie for their group.

According to Grice's (1989) *maxim of quality*, honest information is expected in most social interactions. However, lie-telling may be encouraged over truth-telling when lying can be used to maintain relationships with others (Bussey, 1999; DePaulo & Kashy, 1998; Fu et al., 2007; Lakoff, 1973; Lee & Ross, 1997; Sweetser, 1987). One type of lie that

Angela D. Evans, Victoria W. Dykstra, Kaila Bruer, and Heather L. Price, Psychology Department.

This research was supported by Social Sciences and Humanities Research Council of Canada (SSHRC) Insight Grants awarded to the first and last authors, and a Canada Graduate Scholarships SSHRC Grant to the third author. The authors thank the Educating Youth in Engineering and Science Camp at the University of Regina, the many research assistants and camp counselors who assisted with data collection, and the parents and children for their participation in the research.

Address correspondence to Angela Evans, Psychology Department, Brock University, 1812 Sir Isaac Brock Way, St. Catharines, ON, L2S 3A1 Canada. Phone: (905) 688-5550. E-mail: aevans@brocku.ca.

Merrill-Palmer Quarterly, January 2021, Vol. 67, No. 1, pp. 75–93. doi: 10.13110/merrpalmquar 1982.67.1.0075

exemplifies this conflict between honesty and maintaining relationships is lying to protect a collective group. Lies for the collective are sometimes referred to as *blue lies*, deriving their name from cases in which police officers lied to protect the police force or to ensure the successful prosecution of an accused (Klockars, 1984). Other common examples of lying to protect a collective can be seen in politics, athletics, the film and music industry, and the business world. While adults, such as police officers, consider blue lies to sometimes be acceptable (Barnes, 1994; Bok, 1978; Klockars, 1984), little is known about children's tendency to lie for the collective. This dearth of knowledge is particularly problematic when one considers the nature of situations that may lead to children's lies for the collective, relative to adults. That is, children's lies for the collective may involve primarily social and relational motivations (e.g., bullying, cheating, stealing, or threats of school violence). Thus, the present investigation examined children's willingness to lie to conceal their own group's transgression.

From an early age, children learn both to follow rules and that breaking rules can have negative consequences, such as external punishment or negative emotions (e.g., shame or embarrassment; Keller et al., 2004; Smetana et al., 2000). To avoid experiencing negative consequences, children are motivated to lie to conceal their own wrongdoing, which is evident in children's high rates of lie-telling to conceal a transgression in laboratory-based research studies using the temptation-resistance paradigm (TRP; Lewis et al., 1989; Polak & Harris, 1999; Talwar & Lee, 2002). In the TRP, children begin to lie to conceal their own transgressions (e.g., peeking at a forbidden item) between 2 and 3 years of age (e.g., Evans & Lee, 2013; Williams et al., 2017). By 4 years of age, the majority of children will lie to conceal their own transgression, and children become increasingly able to successfully maintain that lie with age and cognitive development (e.g., Evans et al., 2011; Fu et al., 2012; Talwar & Lee, 2002; Talwar et al., 2017; Williams et al., 2013).

Furthermore, research on prosocial lie-telling indicates that children are also inclined to lie for the benefit of others. For example, the majority of children will lie and tell an experimenter that they like an undesirable gift to avoid hurting the experimenter's feelings, and start to do so as young as 3 years old (Talwar et al., 2007; Williams et al., 2013, 2016; Xu et al., 2010). In addition to lying to spare someone's feelings or to hide their own transgressions, children appear willing to lie to conceal another person's transgression. This willingness to lie depends, at least in part, on whether children themselves can be blamed (i.e., held responsible) for the transgression in question (Gordon et al., 2014). For example, Talwar et al.

(2004) found that children were significantly more likely to lie to conceal their parent's transgression when the children could not be blamed for the transgression (e.g., they were out of the room during the transgression or the broken item was out of the child's reach and thus the child could not have been the transgressor) compared to when the child could be blamed (e.g., they were in the room during the transgression and could have plausibly been the transgressor).

The previously described studies focus on children's falsification in which children must make a false statement when directly asked about their behavior (e.g., "Did you turn around and peek at the toy?"). However, as Ekman (1985) noted, an alternative form of deception that can be used is concealment in which one does not make a false statement but simply omits the truth. Lyon et al. (2014) examined 4- to 9-year-old children's concealment of a co-transgression with an adult in which children played with and broke a forbidden toy. Instead of directly asking children whether they played with the toy, they interviewed children using an open-ended interview asking them about everything that happened while the interviewer was gone. As a result, children did not need to lie by making a false statement but could lie by concealing the information about playing with the forbidden toy from the interviewer. Lyon et al. (2014) found high rates of concealment when children co-transgressed with an adult (72% of the control group concealed breakage). Across these studies of falsification (e.g., Talwar et al., 2004) and concealment (Lyon et al., 2014), it appears that the child's perceived role in committing the transgression may influence children's willingness to disclose, with children who were more involved or who feel that others will perceive them as being more involved demonstrating low rates of disclosure. The present investigation examined whether children's degree of involvement in the transgression (and thus level of potential blame) would influence rates of lying for the collective via concealment. Additionally, we assessed whether children would place blame on others as a way of avoiding taking responsibility for a transgression, as well as how placing blame related to whether children lie for the collective.

Despite knowing a great deal about children's willingness to lie for themselves or another, we know relatively little about their willingness to lie for their own group's transgression. Most of the extant research on lying for the collective focuses on how cultural context (collective vs. individualistic) influences children's moral evaluations of lies for the collective. In collectivist cultures, such as China, children are taught to emphasize the harmony of the group and that the success of the group is more important than that of the individual. In contrast, individualistic cultures value

personal autonomy and the success of the self (Oyserman et al., 2002). Cultural differences in the evaluations of lies for the collective are evident as early as middle childhood. In studies where lying for an individual was directly contrasted with the collective, Chinese children were more likely to choose lying for the group at a cost to the individual. In contrast, Canadian children were more likely to choose lying for the individual at a cost to the group (Dmytro et al., 2014; Fu et al., 2007, 2008). However, when the lie-teller (individual) *and* the group both benefited from the lie, children in individualistic cultures were more likely to recommend lying compared to children in collectivist cultures (Sweet et al., 2010).

Taken together, it appears that Chinese children and Canadian children differ in their evaluations of lies for the collective with Chinese children placing a priority on the group and Canadian children prioritizing the individual. Though informative, children's moral evaluations of lie-telling do not necessarily provide insight into whether children would, in practice, lie for the collective. Only one study to date has examined children's lie-telling behaviors for the collective. Fu and colleagues (2008) examined Chinese children's (7–11 years old) tendency to lie or tell the truth about breaking the rules to win a school competition in relation to their moral evaluation of lies. Children were asked to select four children—two novice and two advanced players—from their class to compete in a Chinese chess competition; instead, all groups cheated by selecting four advanced players to represent their class. The next day, children were interviewed and directly asked whether their class cheated in selecting the team. While most children confessed the transgression, a minority of children (17%) lied by making a false statement that their team adhered to the rule to conceal the group's transgression, with lie-telling rates increasing with age. Additionally, children's lie-telling behaviors were significantly related to their moral evaluations; specifically, children who had more positive moral evaluations of lies for the collective were more likely to lie themselves (Fu et al., 2008).

The present study extended Fu and colleagues' (2008) findings by examining children's lie-telling for the collective in a more individualistic culture. Further, though lying for the collective can occur in relatively innocuous situations (e.g., accidental damage to property), it may also occur in more serious situations (e.g., crimes committed as a group such as bullying or gang-related activities). Thus, we extended our queries from prior work in which children were directly asked about cheating, allowing for falsification (Fu et al., 2008), to a more applied interview approach by using a structured phased interview that may be seen in an investigative context in which children were offered a less direct opportunity to disclose or lie about the transgression. In the present study, 7- to 11-year-olds from

Canada participated in a competition between small groups in which each group had the opportunity to cheat by increasing their team's score. To assess whether children's involvement (and thus level of potential blame) in the transgression would influence their rates of lying, children were randomly assigned to one of two Transgression conditions: Active or Passive. In the *Active Transgression condition*, the children each individually submitted their group's agreed-upon falsely inflated score, giving them a more active role in cheating. In the *Passive Transgression condition*, the group agreed to cheat but the competition leaders recorded and submitted the group's agreed-upon falsely inflated score. The following day, children were interviewed about the competition. Children's interview responses were coded for whether children lied for their group by concealing the transgression, during which part of the interview children disclosed the transgression (if at all), who they blamed for the transgression, and which score they reported (truly achieved or falsely inflated score).

Given that children have been shown to lie at high rates to cover their own and others' transgressions (Gordon et al., 2014; Talwar & Lee, 2002; Talwar et al., 2004, 2017; Williams et al., 2013), we expected the majority of children to lie to conceal their group's transgression. Additionally, given that lie-telling for the self and evaluations of lying for the collective have been found to increase with age (e.g., Fu et al., 2008, 2012), it was predicted that lying for the collective would also increase with age. Furthermore, we expected to find differences in lie-telling rates between the Active and Passive Transgression conditions. Previous research has shown that children are more likely to lie when they think they may be blamed for a transgression (Lyon et al., 2014; Talwar et al., 2004) and that they appear likely to consider the consequences to the self in the decision to lie (Dmytro et al., 2014; Fu et al., 2007; Sweet et al., 2010). Thus, given that the children in the Active condition were more involved in the act of cheating and could feel more likely to be blamed, we expected that children in the Active condition would be more likely to lie than children in the Passive condition. For the children who did disclose the transgression, we were interested in whether they would place blame and on whom they would place blame. Although the counselors suggested changing the score, all children agreed with changing the score (by cheering and in the Active condition by writing the false score down) and thus were also involved in the transgression. Therefore, children could place blame on the self or others (counselors, research assistants, or the group as a whole). We were interested in whether children who disclosed the transgression would take responsibility for cheating or whether they would place blame on the counselors for suggesting the change. It was predicted that disclosers would most often place blame on the counselors for suggesting cheating.

We were also interested in children's ability to maintain the lie or whether they would leak information about the transgression. We examined several specific indicators of lie maintenance, including whether children reported that they were asked to keep a secret, the type of score they reported (if a score was reported), and their responses to a series of direct yes/no questions. By stating that they were asked to keep a secret or mentioning a secret of some kind, children reveal that a concealed event occurred. Additionally, to maintain a lie, children could report their falsely inflated score, as that was the score reported by the research assistants. If children report their true, achieved score, that would reveal information that was supposed to be concealed. Thus, we examined whether children who lied would successfully maintain the lie (e.g., concealing the secret and reporting the falsely fabricated score) or leak incriminating information (e.g., that there was a secret and the true score achieved) and in turn reveal their lie. Finally, in terms of direct yes/no questions, we were interested in whether children would leak incriminating information when asked about specific aspects of the event. It was predicted that, as age increased, lie-tellers would be less likely to reveal the transgression by concealing that there was a secret, the true score, and by not leaking information during the direct yes/no questions (Evans et al., 2011; Fu et al., 2012; Talwar & Lee, 2002; Talwar et al., 2017; Williams et al., 2013).

Method

Participants and Design

A total of 444 children were recruited from a summer science camp. The following were excluded: six children who did not remember the target event at the time of the interview, one who reported during debriefing that they were suspicious of the research assistants, and 29 from the Active Transgression condition who did not write down the group's falsely inflated score and thus did not transgress along with the rest of the group. Thus, the final sample included 408 children 7–11 years of age ($M_{age} = 9.01$, $SD = 1.28$, 63% male). Children were randomly assigned to either the Active or Passive Transgression conditions. There were no significant age differences between the two Transgression conditions, $t(406) = 1.120$, $p = .263$, 95% CI = −.39, .11.

Procedure

Parents provided written informed consent prior to children participating in the study. Children whose parents did not provide consent were not present for the event. Children provided verbal assent prior to their

interview. All procedures were approved by the University of Regina Research Ethics Board.

The event. Two research assistants (one male and one female) visited the children's summer science camp to tell them about a competition that was being held at the camp for the "Most Brilliant Group." Children were told that the group with the highest scores would win the title of the most brilliant group and their names would be entered into a draw for a prize. All groups received the same questions and were part of the same competition.

In small groups (n = 15–20), each child was asked to solve a puzzle in 2 minutes. After the 2 minutes, the research assistants collected the puzzles and tallied the group's score. The visitors then reported the group's achieved score. At this point, a camp counselor suggested that the group round up their score by 5 points. The counselors asked the group to cheer if they were in favor of rounding their score to create a group consensus. All groups cheered to show agreement. The counselor then asked that the children and the visitors (research assistants [RAs]) not tell anyone that they had falsely inflated their score (i.e., they were asked to keep the cheating a secret). Children then recorded their group's score in one of two Transgression conditions.

Active Transgression condition. Children were asked to write down their names, group name, and the group score and to submit the score to the visitor to be entered into a prize draw. In doing so, the children actively reported the group's falsely inflated score. This condition was intended to reflect situations in which children are more involved in a group transgression.

Passive Transgression condition. The counselor submitted the group score, and children were asked to write down their names and group name on a separate prize-draw entry slip to submit to the visitor for entry into a prize draw. In doing so, the children were only passively agreeing to the group's falsely inflated score, and this condition was meant to reflect situations where children are less involved in a group transgression.

The event lasted approximately 10 minutes. Children who participated in the event were unaware that they would later be interviewed about the event.

Interviews. Children were interviewed 1 day later by research assistants that the children had never met before using a structured interview protocol that included both free and direct yes/no question components. The instructions for all children were as follows: *Yesterday, [visitor's names] came to your camp to give you some puzzles to solve so you could win a prize. I wasn't here yesterday so I don't know what happened. I'm going to ask you some questions about that visit. Okay? First, tell me everything you can about what happened when [visitor's names] came to*

your group. This general instruction was followed by three non-directive prompts, with pauses between each: *What else can you tell me? What else? Is there something else you can tell me?*

The free-recall component was followed by direct yes/no questions including directly probing about the child's score: *1) What can you tell me about the two people that came? 2) What were the two people wearing? 3) What did they do while they were in the room? 4) What was your group/ team name? 5) Were you happy with your group's score? 6) Did anything else happen? 7) Would you do anything differently if the visitors came again?* Note that children were not directly asked about the transgression, consistent with more applied interviewing techniques. Following the interview, children were asked if they had any questions, debriefed about the event, and given a small prize. The visitor returned to explain what the study was about and to tell the children that everyone falsely inflated their scores and they did not have to feel bad about cheating.

Coding. Interviews were audio recorded, transcribed, and coded for whether children lied for the collective (whether the child concealed the transgression of falsely inflating their score, regardless of whether they reported their specific false score), during which component of the interview children disclosed (i.e., free recall or direct yes/no), and various disclosure characteristics. One characteristic of interest involved blame, which was determined by whether the child placed responsibility on someone (the self or others) for deciding to change the score (i.e., saying "We got X but I decided to write down/cheer for Y" or "The counselors asked/ told us to change our score"). First, we assessed whether children placed blame internally (on the self) or externally (on others). If they placed external blame, we also coded who they blamed (e.g., counselors, visitors, or group). Additional disclosure characteristics included secrecy (whether the child mentioned that the event was a secret) and score reported (whether children reported their truly achieved score or falsely inflated score). Interrater reliability was calculated for 10% of transcripts, and kappa was above .78 for all variables.

Results

Preliminary analyses revealed no significant sex differences, thus all of the following analyses collapsed across sex. The results section begins with an examination of children's rate of lying for the collective and the influence of age and Transgression condition on disclosure rates, followed by the interview component during which children disclosed (free recall or

direct yes/no). Next, we examined whether children blamed someone for the transgression and, if so, who they blamed. Then we assessed children's ability to maintain this lie or whether they reveal details, such as the existence of a secret and their true achieved score. Finally, we examined children's responses to the direct yes/no questions.

Rates of Lying for the Collective

Overall, 83% of children ($n = 338/408$) lied for the collective to conceal their falsely inflated score. To assess the influence of Transgression condition and age, a binary logistic regression was performed with honesty (0 = *lied for the collective*, 1 = *disclosed transgression*) as the predicted variable with age in years and Transgression condition (1 = *Passive*, 0 = *Active*) as the predictor variables. The model was significant, $\chi^2(2) = 6.28$, $p = .043$, Nagelkerke $R^2 = .025$. Specifically, Transgression condition was significant above and beyond age ($B = -.516$, *Wald* = 3.68, $p = .05$; *OR* = 1.67, CI = 0.99, 2.83), suggesting that children in the Passive condition (86%) were 1.67 times more likely to lie for the collective compared to children in the Active condition (79%). However, contrary to our prediction, age was not significantly related to children's lie-telling for the collective.

Disclosure

Interview component. Of the 70 children who truthfully disclosed the transgression, the majority disclosed (63%, $n = 44/70$) during the free-recall portion of the interview. Among the free-recall disclosers, 56% ($n = 25/44$) reported the transgression in response to the first prompt ("Tell me everything…"). To assess any condition differences in the rate of disclosure during free recall, a binary logistic regression was performed with honesty (0 = *concealed*, 1 = *disclosed transgression during free recall*) as the predicted variable with age in years and Transgression condition (1 = *Passive*, 0 = *Active*) as the predictor variables. The model was not significant, $\chi^2(2) = 5.02$, $p = .081$, Nagelkerke $R^2 = .025$.

The remaining disclosers reported the transgression during direct yes/no questions (37%, $n = 26/70$), with almost half (46%; $n = 12/26$) of direct yes/no questions disclosures occurring in response to the question "Were you happy with your group score?" Again, a binary logistic regression was performed with honesty (0 = *concealed*, 1 = *disclosed transgression during cued recall*) as the predicted variable with age in years and Transgression condition (1 = *Passive*, 0 = *Active*) as the predictor variables. The model

Table 1. Percentage (*n*) of children who disclosed ($n = 70$) during each interview phase

Interview component	% (*n*) of children
Free recall total	63 (44/70)
"Tell me everything…" prompt	56 (25/44)
"What else?" prompts	39 (17/44)
"Is there anything else you can tell me?"	5 (2/44)
Direct yes/no total	37 (26/70)
"What can you tell me about the two people who came?"	19 (5/26)
"What did they do while they were in the room?	15 (4/26)
"Were you happy with your group score?"	46 (12/26)
"Did anything else happen?"	19 (5/26)

was not significant, $\chi^2(2) = 1.51$, $p = .470$, Nagelkerke $R^2 = .010$. See Table 1 for children's disclosure patterns.

Blame

Of those children who disclosed the transgression, 70% ($n = 49/70$) placed blame. To assess whether placing blame varied by age or condition, a binary logistic regression was performed with age in years and Transgression condition as the predictor variables and blame (0 = *no blame*, 1 = *blame*) as the predicted variable. The model was not significant, $\chi^2(2) = 2.95$, $p = .229$, Nagelkerke $R^2 = .059$.

Next, we assessed who children blamed for the transgression. Of the children who placed blame, only 12% ($n = 6/49$) blamed both the self and others, whereas the majority (88%, $n = 43/49$) placed blame solely externally on others. External blame was most frequently placed on their counselor (37%, $n = 18/49$), the visitors (33%, $n = 16/49$), or both (23%, $n = 11/49$), with a minority of children blaming the entire group (8%, $n = 4/49$). To assess whether whom children blamed differed by Transgression condition (Passive vs. Active), chi-squared analyses were performed, indicating no significant differences between conditions, $\chi^2(2) = 1.59$, $p = .453$. To increase power and to assess whether the child placing any blame on the self at all varied by Transgression condition, chi-squared analyses were performed examining those who blamed both the self and others ($n = 7/49$) compared to those who placed blame solely externally on others ($n = 42/49$), but again there were no significant differences by condition, $\chi^2(1) = .018$, $p = .894$.

Lie Maintenance

Secrets. Interestingly, only a minority of all children (8.6%, $n = 35/408$) reported that they were asked to keep the transgression a secret during the interview. Since we were interested in whether children who lied for the collective would be able to maintain their lie or whether they would leak that there was a secret, we further examined lie-tellers' reporting of secrets. Of the children who lied for the collective, only 4% ($n = 14/338$) revealed that there was a secret. Due to the small number of children who reported the secret, we were unable to analyze these findings further for age or condition differences. Interestingly, of the children who disclosed the transgression, 30% ($n = 21/70$) reported that they were asked to keep a secret.

Reporting the score. Next, we were interested in whether children would report the true score or whether they would successfully conceal the true score and maintain their lie by reporting the fabricated score. Approximately half (52%, $n = 211/408$) of all children did not report any score at all during the interview. Of those who reported a group score, 49% ($n = 97/197$) reported the falsely inflated score, 14% ($n = 27/197$) reported the true score, 31% ($n = 62/197$) reported both the true and falsely inflated score, and 6% ($n = 11/197$) reported an incorrect score. Chi-square analysis was performed to assess whether the score reported varied by whether children lied for the collective or disclosed the transgression and was significant, $\chi^2(4) = 301.99$, $p < .001$. Specifically, children who disclosed the transgression were significantly more likely to report both the true and falsely inflated scores (*Adjusted Residual* = 17.3, $p < .001$; see Figure 1). Conversely, children who concealed the transgression were

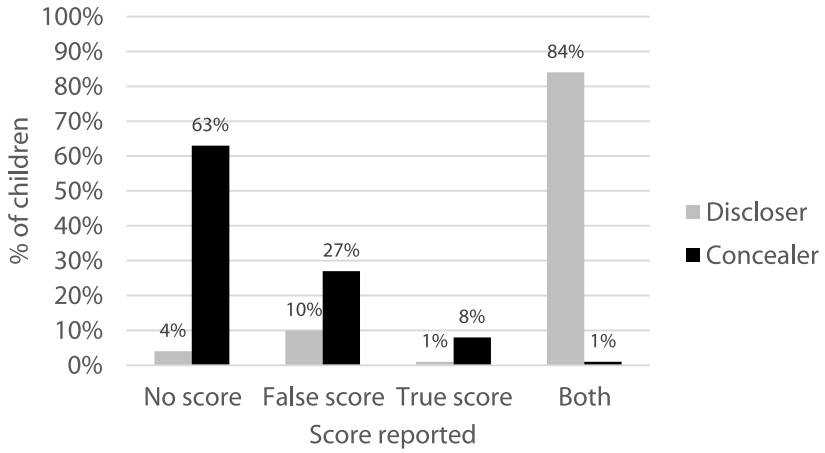


Figure 1. Percentage of children who reported each type of score by disclosure.

significantly more likely to report either the falsely inflated score (*Adjusted Residual* = 2.97, $p = .003$) or no score (*Adjusted Residual* = 8.72, $p < .001$), thus successfully concealing their transgression (see Figure 1).

Next, given that some children who lied for the collective revealed the true score, we were interested in the relation between age and their ability to maintain their lie by either reporting the falsely inflated score or no score. A binary logistic regression was performed with age in years and Transgression condition (1 = *Passive*, 0 = *Active*) entered as predictors and a leakage score as the predicted variable (where 0 = *reported falsely inflated score or no score* and 1 = *revealed the true score or both scores*). The model was not found to be significant, $\chi^2(2) = 4.48$, $p = .106$, Nagelkerke $R^2 = .030$.

Responses to direct questions. Finally, we examined children's response pattern to the direct yes/no questions to assess their ability to avoid leaking incriminating information and whether they varied by age and Transgression condition, as well as between concealers and disclosers. However, there were no significant differences between Transgression conditions or between lie-tellers and disclosers in response patterns to the direct questions ($ps > .05$). Thus, all reported findings were collapsed across Transgression condition and disclosure.

When asked whether they were happy with their group score, the majority of children (77%) said "yes." When asked whether anything else happened, the majority of children (72%) said "no." Finally, when asked if they would have done anything differently, 42% of children said "no," and 42% of children said "yes" (see Table 2). A large portion of children elaborated on their "yes" response about whether they would have done anything differently, indicating that they would have tried harder (28%)

Table 2. Percentage of children's responses to the direct questions

Direct questions	IDK	No	Yes	Sort of	Not asked
Were you happy with your group score?	3% ($n = 12$)	4% ($n = 18$)	77% ($n = 315$)	5% ($n = 21$)	10% ($n = 42$)
	IDK	No	Yes	Yes elaborated	Not asked
Did anything else happen?	3% ($n = 10$)	72% ($n = 295$)	3% ($n = 11$)	15% ($n = 63$)	7% ($n = 29$)
Would you do anything differently if the visitors came again?	12% ($n = 47$)	42% ($n = 170$)	10% ($n = 41$)	32% ($n = 129$)	5% ($n = 21$)

Note. IDK = "I don't know."

or gotten a different puzzle (32%). No child specifically said they would not have cheated or changed the score. A multinomial logistic regression with age in years as the predictor variable and response to the question about whether they would do anything differently as the predicted ($0 = no$, $1 = yes$, $2 = elaborated\ yes$, $3 = \text{“I don't know”}$; with no as the comparison variable) was significant, $\chi^2(3) = 37.89$, $p < 001$, Nagelkerke $R^2 = .10$. Specifically, as age increased, children became significantly less likely to say “yes” or “I don't know” compared to “no,” $B = -.69$, $Wald(1) = 20.29$, $p < .001$; $OR = 2.00$, CI = 1.47, 2.67, and $B = -.65$, $Wald(1) = 20.82$, $p < .001$; $OR = 1.92$, CI = 1.45, 2.54 for “yes” and “I don't know,” respectively. Age was not found to be significant for any of the other direct yes/no questions.

Discussion

The present investigation aimed to examine Canadian children's lying for the collective. Overall, our findings indicated that the majority of children are willing to lie for the collective. Furthermore, children's involvement in the transgression was related to their willingness to disclose. Children are motivated to lie to conceal a transgression that they feel involved in or that they could potentially be accused of (Gordon et al., 2014; Lyon et al., 2014; Talwar et al., 2004, 2017; Williams et al., 2013). Thus, it was predicted that children in the Active condition would be more likely to lie compared to the Passive condition, as they would feel more responsibility and blame for the transgression, given their active involvement. Contrary to our prediction, children in the Active condition were significantly more likely to truthfully report the group's transgression compared to those who passively transgressed, although it should be noted that the effect size was small ($OR = 1.67$). We speculate that, since children in the Active condition were required to write down their name, team name, and score, these children may have felt that they were more likely to be caught for the transgression, given the physical evidence. In contrast, those in the Passive condition may have been able to avoid being caught because there was no direct evidence connecting them to the transgression (the final number reported by the competition leaders). Thus, children in the Active condition may have attempted to confess early knowing they might be caught. These findings suggest that children's willingness to lie may depend on whether they are likely to be caught and perhaps, in turn, blamed. This is consistent with Fu and colleagues' (2012) findings that children as young as 4 years of age make strategic decisions of when to tell the truth or lie about a transgression depending on whether they can avoid being caught (based

on the lie-recipient's knowledge of the transgression). Thus, these findings may suggest that, when children believe they will be caught, they are more likely to confess to not only their own transgression but their collective group's transgression.

Based on previous studies indicating that children are motivated to lie to avoid blame (Gordon et al., 2014; Talwar et al., 2004), the present study also examined whether children would take responsibility for their group's transgression or whether they would attempt to place blame on others. Consistent with our prediction, we found that, when children disclosed the transgression and placed blame, they blamed someone else (e.g., counselor, the visitors, or both). These findings suggest that, when a group transgression occurs, children are unlikely to take responsibility for their involvement in the transgression and are likely to place blame on others, potentially as a mechanism to reduce the consequences for the self. Given that an adult suggested the transgression, it is not surprising that children felt the authority figure should be responsible. Interestingly, we did not find any differences in blame based on the transgression condition. This finding indicates that children in the Active condition indeed did not feel more responsibility for the transgression compared to children in the Passive condition and provides further support for the idea that disclosure rates may have varied based on leaving evidence rather than blame. Future studies may consider alternative methodologies for manipulating children's involvement to differentiate the roles of involvement and blame.

We also examined potential condition and age differences in children's ability to maintain their lies. Interestingly, overall, we found that children were highly skilled in their ability to conceal their transgression. Only a minority of children who concealed the transgression reported that there was a secret (4%) and were more likely to report the false score (27%) or no score (63%) compared to truth-tellers who typically reported both scores (84%). Additionally, in response to direct yes/no questions, children who concealed the transgression gave the same pattern of results as truth-tellers, thus maintaining the concealment. Furthermore, we found that this ability to maintain concealment improves with age, at least in response to the question about whether children would do anything differently if it happened again. Taken together, these findings suggest that by 7 years of age, children are skilled at concealing their deception, a finding that is consistent with previous findings examining children's ability to maintain their lies when directly asked about the potential transgression (Evans et al., 2011; Fu et al., 2012; Talwar & Lee, 2002; Talwar et al., 2017; Williams et al., 2013). It is important to note that none of our direct yes/

no questions directly probed the transgression and thus made maintenance of the concealment easy. Had we more directly questioned the children (e.g., "Did anything bad happen?" or "Did anyone cheat?"), children may have found it more difficult to maintain their concealment.

The pattern of disclosers placing blame on others more often than the self suggests that children may have been highly motivated to protect the self. However, to gain a greater understanding of children's motivations for lying for the collective, future research is needed where children are explicitly asked about their motivations for lying, as well as manipulating whether children were involved in their group's transgression.

Interestingly, a much higher rate of lying for the collective (83%) was found in the present study compared to the study by Fu and colleagues (2008), who found that only a minority of Chinese children (approximately 20%) were willing to lie for the collective. However, these findings are consistent with previous research indicating that children in individualistic cultures were more likely to recommend lying when both the lie-teller (individual) and the group benefited from the lie, compared to children from a more collectivist culture in China (Sweet et al., 2010). Furthermore, Fu and colleagues directly asked children whether their class followed the rules (i.e., transgressed) requiring children to make a false statement. In contrast, the present study assessed whether Canadian children would lie for the collective during a recall interview, which is more akin to an investigative interview. The interview in the present investigation avoided yes/no questions directly asking whether a transgression occurred and relied on open-ended recall questions followed by more specific direct yes/no questions that did not directly ask about the transgression. This less direct method of questioning children about the transgression did not require children to make a false statement about their score and allowed for concealment. The concealment, rather than falsification, may have increased rates of lying for the collective as a more direct question may imply interviewer suspicion and thus increase the truth-telling rate. Our high rates of concealment are consistent with work by Lyon and colleagues (Evans & Lyon, 2019; Lyon et al., 2008, 2014), who found that the majority of children concealed a transgression when a more open-ended interviewing strategy was used. We likely would have found higher rates of disclosure if we had asked children a direct yes/no question about whether a transgression had occurred, akin to methods used by Fu and colleagues' (2008) examination of Chinese children's blue lies. Furthermore, studies have shown that children who fail to disclose a transgression during an interview will disclose if asked directly about that transgression (e.g., Ahern et al., 2016; Pipe & Wilson, 1994; Rush et al., 2017).

Although all questions in the present study did not directly ask about the transgression, they progressed from free recall to direct yes/no questions. Interestingly, of those children who did disclose, the majority disclosed during free recall, and more reluctant disclosers, who reported the transgression during the direct yes/no questions, disclosed in response to the question that directly asked about the team's score. Thus, it appears that those who are willing to disclose will indeed disclose in response to open-ended non-suggestive questions. However, for more reluctant disclosers, more direct (yet, non-suggestive) questions may be necessary. Future studies are necessary to tease apart the cross-cultural differences in the rate of lying for the collective, comparing both Canadian and Chinese children in the same paradigm while varying the directness of the interviewer's questions.

A limitation of this study was children's relationship with their collective group. In the present study, children's collective group was their peers at a summer camp. It is interesting that such high rates of lying for the collective were found with this group, and it is possible that increasing the closeness of one's collective (e.g., family, classmates, close friends), and, along with that, the enduring implications of disclosures and lying, may moderate the likelihood of lying.

Taken together, these findings suggest that, when children are involved in a group transgression, they are likely to lie to conceal that transgression. This is an important finding given its relevance to situations such as bullying, cheating, stealing, and threats of school violence among children and youth. Moreover, this finding is important considering the increasing number of children (as young as 10 years old) joining gangs (Mayor's Task Force on Gang Violence Prevention, 2017). Not only are these children likely to be involved in illicit activities, they are also likely to have incentive to lie for the collective group, either out of loyalty or social pressure. There is a need to understand how often and under what circumstances children may be truthful. Our findings suggest that, when there is a likelihood of being caught, such as evidence of a child's involvement in the transgression, children are significantly more likely to report the group transgression, but to blame others.

References

Ahern, E. C., Stolzenberg, S. N., McWilliams, K., & Lyon, T. D. (2016). The effects of secret instructions and yes/no questions on maltreated and non-maltreated children's reports of a minor transgression. *Behavioral Sciences & the Law*, *34*, 784–802. https://doi.org/10.1002/bsl.2277

Barnes, J. A. (1994). *A pack of lies: Towards a sociology of lying*. Cambridge University Press.

Bok, S. (1978). *Lying: Moral choice in public and private life*. Vintage.

Bussey, K. (1999). Children's categorization and evaluation of different types of lies and truths. *Child Development*, *70*, 1338–1347. https://doi.org/10.1111/1467-8624.00098

DePaulo, B. M., & Kashy, D. A. (1998). Everyday lies in close and casual relationships. *Journal of Personality and Social Psychology*, *74*, 63–79. https://doi.org/10.1037/0022-3514.74.1.63

Dmytro, D., Lo, J., O'Leary, J., Fu, G., Lee, K., & Cameron, C. A. (2014). Development of cultural perspectives on verbal deception in competitive contexts. *Journal of Cross-Cultural Psychology*, *45*, 1196–1214. https://doi.org/10.1177/0022022114535485

Ekman, P. (1985). *Telling lies: Clues to deceit in the marketplace, politics, and marriage*. Norton.

Evans, A. D., & Lee, K. (2013). Emergence of lying in very young children. *Developmental Psychology*, *49*, 1958–1963. https://doi.org/10.1037/a0031409 1958

Evans, A. D., & Lyon, T. D. (2019). The effects of the putative confession and evidence presentation on maltreated and non-maltreated 9- to 12-year-olds' coached concealment of a minor transgression. *Journal of Experimental Child Psychology*, *188*, 204674. https://doi.org/10.1016/j.jecp.2019.104674

Evans, A. D., Xu, F., & Lee, K. (2011). When all signs point to you: Lies told in the face of evidence. *Developmental Psychology*, *47*, 39–49. https://doi.org/10.1037/a0020787

Fu, G., Evans, A. D., Wang, L., & Lee, K. (2008). Lying in the name of the collective good: A developmental study. *Developmental Science*, *11*, 495–503. https://doi.org/10.1111/j.1467-7687.2008.00695.x

Fu, G., Evans, A. D., Xu, F., & Lee, K. (2012). Young children can tell strategic lies after committing a transgression. *Journal of Experimental Child Psychology*, *113*, 147–158. https://doi.org/10.1016/j.jecp.2012.04.003

Fu, G., Xu, R., Cameron, C. A., Heyman, G., & Lee, K. (2007). Cross-cultural differences in children's choices, categorizations, and evaluations of truths and lies. *Developmental Psychology*, *43*, 278–293. https://doi.org/10.1037/0012-1649.43.2.278

Gordon, H. M., Lyon, T. D., & Lee, K. (2014). Social and cognitive factors associated with children's secret-keeping for a parent. *Child Development*, *85*, 2374–2388. https://doi.org/10.1111/cdev.12301

Grice, H. P. (1989). *Studies in the way of words*. Harvard University Press.

Keller, M., Gummerum, M., Wang, X. T., & Lindsey, S. (2004). Understanding perspectives and emotions in contract violation: Development of deontic and

moral reasoning. *Child Development*, *75*, 614–635. https://doi.org/10.1111/j.1467-8624.2004.00696.x

Klockars, C. B. (1984). Blue lies and police placebos: The moralities of police lying. *American Behavioral Scientist*, *27*, 529–544. https://doi.org/10.1177/000276484027004007

Lakoff, R. (1973). Language and woman's place. *Language in Society*, *2*, 45–80. https://doi.org/10.1017/S0047404500000051

Lee, K., & Ross, H. J. (1997). The concept of lying in adolescents and young adults: Testing Sweetser's folkloristic model. *Merrill-Palmer Quarterly*, *43*, 255–270. https://www.jstor.org/stable/23092491

Lewis, M., Stranger, C., & Sullivan, M. W. (1989). Deception in 3-year-olds. *Developmental Psychology*, *25*, 439–443. https://doi.org/10.1037/0012-1649.25.3.439

Lyon, T. D., Malloy, L. S., Quas, J. A., & Talwar, V. A. (2008). Coaching, truth induction, and young maltreated children's false allegations and false denials. *Child Development*, *79*, 914–929. https://doi.org/10.1111/j.1467-8624.2008.01167.x

Lyon, T. D., Wandrey, L., Ahern, E., Licht, R., Sim, M. P. Y., & Quas, J. A. (2014). Eliciting maltreated and nonmaltreated children's transgression disclosures: Narrative practice rapport building and a putative confession. *Child Development*, *85*, 1756–1769. https://doi.org/10.1111/cdev.12223

Mayor's Task Force on Gang Violence Prevention. (2017). *Mayor's Task Force on Gang Violence Prevention: Findings and action steps*. Retrieved from https://www.surrey.ca/sites/default/files/media/documents/Mayor%27sTaskForceFindingsReportFinal.pdf

Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, *128*, 3–72. https://doi.org/10.1037//0033-2909.128.1.3

Pipe, M.-E., & Wilson, J. C. (1994). Cues and secrets: Influences on children's event reports. *Developmental Psychology*, *30*, 515–525. https://doi.org/10.1037/0012-1649.30.4.515

Polak, A., & Harris, P. L. (1999). Deception by young children following noncompliance. *Developmental Psychology*, *35*, 561–568. https://doi.org/10.1037/0012-1649.35.2.561

Rush, E. B., Stolzenberg, S. N., Quas, J. A., & Lyon, T. D. (2017). The effects of the putative confession and parent suggestion on children's disclosure of a minor transgression. *Legal and Criminological Psychology*, *22*, 60–73. https://doi.org/10.1111/lcrp.12086

Smetana, J. G., Kochanska, G., & Chuang, S. (2000). Mothers' conceptions of everyday rules for young toddlers: A longitudinal investigation. *Merrill-Palmer Quarterly*, *46*, 391–416. https://www.jstor.org/stable/23093738

Sweet, M. A., Heyman, G. D., Fu, G., & Lee, K. (2010). Are there limits to collectivism? Culture and children's reasoning about lying to conceal a group transgression. *Infant and Child Development*, *19*, 422–442. https://doi.org/10.1002/icd.669

Sweetser, E. (1987). The definition of "lie": An examination of the folk models underlying a semantic prototype. In D. Holland and N. Quinn (Eds.), *Cultural models in language and thought* (pp. 43–66). Cambridge University Press.

Talwar, V., Lavoie, J., Gomez-Garibello, C., & Crossman, A. M. (2017). Influence of social factors on the relation between lie-telling and children's cognitive abilities. *Journal of Experimental Child Psychology*, *159*, 185–198. https://doi.org/10.1016/j.jecp.2017.02.009

Talwar, V., & Lee, K. (2002). Social and cognitive correlations of children's lying behavior. *Child Development*, *79*, 866–881. https://doi.org/10.1111/j.1467-8624.2008.01164.x

Talwar, V., Lee, K., Bala, N., & Lindsay, R. C. L. (2004). Children's lie-telling to conceal a parent's transgression: Legal implications. *Law and Human Behavior*, *28*, 411–435. https://doi.org/10.1023/B:LAHU.0000039333.51399.f6

Talwar, V., Murphy, S. M., & Lee, K. (2007). White lie-telling in children for politeness purposes. *International Journal of Behavioral Development*, *31*, 1–11. https://doi.org/10.1177/0165025406073530

Williams, S. M., Kirmayer, M., Simon, T., & Talwar, V. (2013). Children's antisocial and prosocial lies to familiar and unfamiliar adults. *Infant and Child Development*, *22*, 430–438. https://doi.org/10.1002/icd.1802

Williams, S., Leduc, K., Crossman, A., & Talwar, V. (2017). Young deceivers: Executive functioning and antisocial lie-telling in preschool aged children. *Infant and Child Development*, *26*, 1–17. https://doi.org/10.1002/icd.1956

Williams, S., Moore, K., Crossman, A. M., & Talwar, V. (2016). The role of executive functions and theory of mind in children's prosocial lie-telling. *Journal of Experimental Child Psychology*, *141*, 256–266. https://doi.org/10.1016/j.jecp.2015.08.001

Xu, F., Bao, X., Fu, G., Talwar, V., & Lee, K. (2010). Lying and truth-telling in children: From concept to action. *Child Development*, *81*, 581–596. https://doi.org/10.1111/j.1467-8624.2009.01417.x