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Lying in the name of the collective good:

a developmental study

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Abstract

The present study examined the developmental origin of 'blue lies', a pervasive form of lying in the adult world that is told purportedly to benefit a collective. Seven, 9-, and 11-year-old Chinese children were surreptitiously placed in a real-life situation where they decided whether to lie to conceal their group's cheating behavior. Children were also assessed in terms of their willingness in hypothetical situations to endorse lying or truth-telling that benefits a collective but at the same time harms an individual. Results showed that as age increased, children became more inclined to endorse lying in the name of the collective good, and to tell lies for their group themselves. Furthermore, children's endorsement about blue lies in hypothetical situations predicted their actual lying behavior.

Introduction

Lying in the name of the collective good occurs commonly in the adult world. Such lies are frequently told in business, politics, sports, and many other areas of human life. These lies are so common that they have acquired a specific name, the 'blue lie' (purportedly originating from cases where police officers made false statements to protect the police force or to ensure the success of the government's legal case against an accused; Barnes, 1994).

Although people generally reject lying, they often feel that lying in the name of the collective good is morally justified because blue lies serve pro-social purposes (Barnes, 1994; Bok, 1978). Where does this moral latitude come from? Social psychological research (Lanate & Nida, 1981; Forgas & Williams, 2001) has long revealed that people's social behaviors are strongly influenced by social situational factors, which may also be the driving force for adults' decisions to tell blue lies (Barnes, 1994; Bok, 1978). In other words, blue lies are a unique product of an individual's attempt to meet the complex demands of the adult society. However, an additional possibility is that this moral latitude already exists in childhood. Children may be socialized to believe that lying for the collective is morally acceptable. As a result, they endorse others telling blue lies as well as telling them themselves. The present study tests this general hypothesis.

Research has shown that children begin to lie as early as preschool years (Newton, Reddy & Bull, 2000) and the tendency to lie continues to increase with age (Wilson, Smith & Ross,

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2003). Not only do children lie to conceal their own transgressions (Lewis, 1993; Polak & Harris, 1999; Talwar & Lee, 2002a; Wilson et al., 2003) or to trick others (Chandler, Fritz & Hala, 1989; Peskin, 1992), but they also tell white lies to spare the feelings of others (Talwar & Lee, 2002b; Talwar, Murphy & Lee, 2006). However, it is entirely unclear (1) whether children will tell lies for their collective and (2) how children's willingness to tell blue lies is related to their moral understanding of such type of lies.

Although no study has specifically examined children's actual telling of blue lies and its relation to their moral understanding, related studies have been conducted since the early 1900s (Piaget, 1932/1965; Hartshorne & May, 1928; Peterson, Peterson & Seeto, 1983; Strichartz & Burton, 1990; Siegal, Surian, Nemeroff & Peterson, 2000; Siegal & Peterson, 1998; Polak & Harris, 1999; Bussey, 1992; Lewis, 1993; Lewis, Stranger & Sullivan, 1989; Lee, Cameron, Xu, Fu & Board, 1997; Lee, 2000; Fu, Lee, Cameron & Xu, 2001; Fu, Xu, Cameron, Heyman & Lee, 2007). Research on children's moral judgments has shown that children's understanding of truths and lies and their moral implications emerges during the preschool years (e.g. Bussey, 1992). While children are strongly against lies that conceal transgressions, Western 4- to 11-year-olds endorse white lies told to be polite (Bussey, 1999), and 7-, 9- and 11-year-old Chinese children value lies told for modesty purposes (e.g. Lee *et al*., 1997; Lee, Xu, Fu, Cameron & Chen, 2001). In addition, Siegal *et al*. (2000) reported that 4- and 5-year-old Catholic Italian children did not regard untruthful statements blessed by a priest as lies. Furthermore, closely related to the present investigation, Fu *et al*. (2007) found that as age increased, Chinese children between 7 and 11 years of age increasingly favored lying to benefit the collective over an individual or self while Western children showed the opposite preference. These results suggest that children's moral understanding of lying may be influenced by the cultural context in which they are socialized. As children become increasingly exposed to their culture, their conception of lying and its moral values become more in line with the cultural norms, which in turn may influence their actual lying behavior.

The present study aimed to address the questions of whether children tell blue lies and whether children's evaluation of blue lies is related to their blue lie-telling behavior. Seven-, 9-, and 11-year-old children from the People's Republic of China (PRC) participated in this study. Children from the PRC were selected because a recent study by Fu *et al*. (2007) found that with increased age, Chinese children give increasingly more positive evaluations to blue lies. Given their moral knowledge, it is possible that Chinese children may actually tell blue lies when faced with a real-life situation where the interest of the collective must be protected. The age range was chosen because past research has shown that children's moral understanding of blue lies begins to emerge around 7 years and reach near adult level at 11 years (Fu *et al*., 2007). We hypothesized that, as age increases, Chinese children's evaluations of blue lies will become more positive, they will become more inclined to tell blue lies, and their beliefs will be significantly related to their actual blue lie-telling behavior.

Experiment 1: Moral choice

In Experiment 1, children experienced a staged real-life situation where they had to decide whether to lie for their group (the action phase). On a separate day, children were read vignettes where story characters were faced with moral dilemmas where truth- or lie-telling would either harm the self but help a collective or vice versa (the moral judgment phase). Children were asked whether they would choose the lie or truth alternative if they were the story character. The order of these two days was counterbalanced between participants.

Method

Participants—Two hundred and ninety-four 7-, 9- and 11-year-olds from the PRC participated: 97 7-year-olds (48 male, M = 7.34 years, SD = .31), 96 9-year-olds (49 male, M

= 9.34 years, *SD* = .38) and 101 11-year-olds (54 male, *M* = 11.42 years, *SD* = .37). They, and children in Experiment 2, were Han Chinese from families of all walks of life in an eastern Chinese city. Informed consent was obtained from children's legal guardians.

Materials and procedure

Phase 1: Moral behaviors—Experimenter 1 came to children's classes and was introduced by their teacher as a school official. Experimenter 1 explained the Chinese Chess contest in which the class was to participate. She explained that the class was to create a team of four students to represent their school. The School District had one rule: Two students must have experience playing the game (Experienced players) and two students must not know how to play the game (Novice players). As this is a common game played in China, children knew who played Chinese Chess and who did not. Children were told that the purpose of the contest was to see whether the four members could work together in spite of their skill differences. Students were told it was very important that the school win the contest. The class was then given time to discuss how to create the best possible team. All classes, without Experimenter 1's explicit suggestion, decided to choose four Experienced players instead of two and thus violated the School District Rule.

The following day Experimenter 2 was introduced to the class by the teacher as a representative from the School District who had come to ask them questions about extracurricular activities in their school. Experimenter 2 had a long list of questions and told students that each child would be asked different questions during individual interviews. This long list of questions prevented children from feeling that their statement would be contradicted by their classmates' response to the same question. Students were told to keep their questions and answers secret from their classmates. In addition, the interviewer promised children that their answers would be kept confidential. The interviewer also conducted the individual interviews in a non-threatening and casual manner. During the interviews, Experimenter 2 appeared to select random questions from the list. Children were asked one irrelevant question (e.g. 'Do you like your school's afterschool activities?') and then each child was asked about the Chinese chess teams: 'I would like to ask you whether or not your class followed the School District rule when selecting team members for the chess contest. Did your class choose two students who can play chess and two students who cannot play?' Those children who claimed that their class had followed the School District rule were classified as lie-tellers. Those who did the opposite were classified as truth-tellers. Children were then returned to their classroom and were fully debriefed when data collection was complete.

Phase 2: Moral choice—On a different occasion (10 days apart from Phase 1; the order of Phase 1 and Phase 2 were counterbalanced between participants), Experimenter 3 individually read children four stories involving child protagonists facing a moral dilemma about whether to tell the truth or lie. All stories involved a conflict between the self and the collective requiring the child to select one over the other. These stories were selected on the basis of Fu *et al*.'s (2007) findings which demonstrated a developmental change in children's evaluation of blue lies with similar stories as age increased. In one story ('Math Contest') *lying* was more beneficial for the *self* than the collective. In a second story ('Singing Contest'), *lying* was more beneficial for the *collective* than the self. In a third story ('Basketball Contest'), *truth telling* was more beneficial for the *self* than the collective. Finally, in a fourth story ('Running Contest'), *truth telling* was more beneficial for the *collective* than the self (see Appendix for the stories).

The truth/lie alternatives, story character genders, the order of the four stories, and the order of Phases 1 and 2 were counterbalanced between children.

Because children's responses to the two lie-for-self stories (the Math and Running Contest Stories) were not significantly different from each other, their responses to the two stories were combined to derive a lying-for-self choice score. The same was true for their responses to the two lie-for-collective stories (the Singing and Basketball Contest Stories), and thus, we derived a lying-for-collective choice score. The two scores ranged from 0 to 2, where 0 = the child always chose the truthful alternative; 1 = the child chose the lie alternative once; 2 = the child always chose the lie alternative.

Results and discussion

Preliminary analyses revealed that the effects of children's sex, story order, and story character gender were not significant for Experiment 1. Thus, the data for these factors were combined for the following analyses.

As shown in Figure 1, 7.2% of the 7-year-olds, 16.7% of the 9-year-olds, and 29.7% of the 11-year-olds lied about their group's cheating behavior in Phase 1. They falsely claimed that their class chose four team members according to the school district's rule. The age difference was significant (see below for statistical results).

A 2 (Beneficiary of Lying: collective, self) × 3 (Age: 7, 9, 11) mixed factor ANOVA with the first factor as the repeated measure was conducted on children's lie-for-self and lie-for-collective choice scores (Greenhouse-Geisser correction was used due to the fact that the Sphericity assumption was violated). The main Beneficiary of Lying effect was significant, $F(1, 291) = 361.68$, $\eta^2 = .55$, $p < .01$, which was qualified by an Age × Beneficiary of Lying interaction, $F(2, 291) = 46.77$, $\eta^2 = .24$, $p < .01$. Figure 2 shows that this significant effect, as confirmed by simple effect analyses (LSD), was mainly due to the fact that as age increased, children became less inclined to choose the lie alternative that benefited the self and more inclined to choose the lie alternative that benefited the group.

A hierarchical logistic regression analysis examined the relationship between children's moral choice scores and their actual lying behaviors. Children's status as a lie- or truth-teller was used as the predicted variable. Age was entered into the model first and was significant, $\chi^2 = 17.75$, $df = 2$, $p < .001$; Nagelkerke $R^2 = .10$. *A priori* contrasts, with 7-year-olds as the reference group, revealed that 7-year-olds significantly differed from 9-year-olds, *Wald* = 14.22, $df = 1$, $p < .01$ and 11-year-olds, *Wald* = 4.57, $df = 1$, $p < .05$. Figure 1 shows that as age increased, more children lied about their class's violation of the school district's rule.

To assess how children's moral choice scores were related to their actual lying behaviors, the lie-for-self and lie-for-collective Choice Scores were added into the model. The step was significant, $\chi^2 = 17.72$, $df = 2$, $p < .01$; Negelkerke $R^2 = .19$. Further inspection showed that only children's lie-for-collective scores were significantly related to their lying behavior, *Wald* = 13.60, $df = 1$, $p < .01$. Thus, those children who endorsed lying for a collective in a hypothetical situation were more inclined to lie themselves to conceal their class's transgression even after age was partialled out.

Experiment 2: Moral judgments

The results from Experiment 1 suggested that when deciding to lie or tell the truth in a hypothetical situation, Chinese children became increasingly group-oriented as age increased. In addition, Chinese children's decision on whether to tell a lie in the lie-for-collective hypothetical story was related to their actual lie-telling behavior. However, it is unclear whether such an age change in children's choice to tell lies reflects children's development in moral valuations about lies and truths. Although children may decide to tell a blue lie we do not know whether they judge this untruthful statement to be good or bad or whether they even classify

such statements as lies. As age increases, Chinese children may increasingly consider untruthful statements told to benefit a collective not to be lies. In addition, children may judge statements that benefit the collective less negatively than untruthful statements told to benefit the self. These age-related changes in moral valuation may predict their actual lying or truth-telling behavior for a collective. Experiment 2 tested this possibility.

Method

Participants—A new group of 291 7-, 9-, and 11-year-olds from the PRC participated: 105 7-year-olds (53 male, $M = 7.36$ years, $SD = .45$), 91 9-year-olds (50 male, $M = 9.33$ years, $SD = .39$) and 95 11-year-olds (49 male, $M = 11.42$ years, $SD = .37$).

Materials and procedure—Children participated in two phases. Again the order of Phase 1 and Phase 2 was counterbalanced between participants. Phase 1 was identical to that used in Experiment 1. In Phase, 2, an experimenter individually trained children to use a 7-point scale: '***' very very good, '**' very good, '*' good, 'O' not good or bad, 'X' bad, 'XX' very bad, 'XXX' very very bad. Once it was determined that children were able to use the scale, the experimenter read the same four stories as those used in Experiment 1. Unlike the previous experiment, the story character made a decision. For example, at the end of the 'Singing Contest' story, children were told: 'Xiao Lin thought for a while and decided he/she should not sing. So he/she said: "I am sick today, I cannot sing in the competition." ' (a lie).

Children were then asked: (1) 'Is what Xiao Lin said good for the collective, self or neither?' (The Beneficiary Control Question), which ascertained whether children understood the consequence of the protagonist's statement; (2) 'Is what Xiao Lin said a lie or the truth or something else?' (The Classification Question), and (3) 'Is what Xiao Lin said very very good, . . . very very bad?' (the Evaluation Question where the 7-point scale was used). The order of stories, forced-choice options, questions and Phases 1 and 2 were counterbalanced between participants.

Results and discussion

Preliminary analyses revealed that the effects of children's sex, story order, and story character gender were not significant for Experiment 2. Thus, the data for these factors were combined for the following analyses.

With regard to Phase 1, as shown in Figure 1, 7.6% of the 7-year-olds, 17.6% of the 9-year-olds, and 30.5% of the 11-year-olds lied about their group's cheating behavior. They claimed falsely that their class chose the four team members according to the school district's rule. The age difference was significant (see below for statistical results).

With regard to Phase 2, all children answered the Beneficiary Control Question correctly and thus had no difficulty identifying the consequences of the protagonist's lies or truths. With regard to the Classification Question, four 3 (Judgment: lie, truth, neither) × 3 (Age: 7, 9, 11) χ^2 analyses were performed to assess the relations between children's age and their classifications of the protagonist's truthful or untruthful statements (Table 1). Greenhouse-Geisser correction was used due to the fact that the Sphericity assumption was violated. There was no significant age effect for any of the moral dilemmas with the exception of lying for the collective, $\chi^2 = 21.48$, $df = 4$, $p < .01$. Follow-up pairwise comparisons revealed significant differences between 7- and 11-year-olds ($\chi^2 = 18.27$, $df = 2$, $p < .001$) and 9- and 11-year olds ($\chi^2 = 8.04$, $df = 2$, $p < .01$). As age increased, children became less inclined to categorize untruthful statements to help a collective as a lie. It should be noted that the majority of children classified untruthful statements as lies and truthful statements as the truth in all stories regardless of the nature of the statements (Table 1).

With regard to the Evaluation Question, for the two stories in which the protagonist lies for self or a collective, a repeated measures 2 (Beneficiary-of-Lying: collective, self) × 3 (Age: 7, 9, 11) ANOVA with the first factor as a repeated measure was performed on children's ratings. Main effects of Beneficiary-of-Lying and Age were significant, $F(1, 288) = 297.01$, $\eta^2 = .51$, $p < .01$, and $F(2, 288) = 17.37$, $\eta^2 = .11$, $p < .01$, respectively, and qualified by a significant interaction, $F(2, 288) = 39.26$, $\eta^2 = .21$, $p < .01$. Post-hoc analyses (LSD) were performed for each age group indicating that children's evaluations were more negative towards lying for the self than for the collective, $t(104) = -3.88$, $p < .01$; $t(90) = -9.77$, $p < .01$; $t(94) = -15.17$, $p < .01$, for 7-, 9- and 11-year olds, respectively. As age increased this difference became greater (Figure 3).

For the two stories in which the protagonist tells the truth for self or a collective, a repeated measure 2 (Beneficiary-of-Truth-Telling: collective, self) × 3 (Age: 7, 9, 11) ANOVA with the first factor as a repeated measure was performed on children's ratings. The main effects of Beneficiary-of-Truth-Telling and Age were significant, $F(1, 288) = 702.70$, $\eta^2 = .71$, $p < .01$, and $F(2, 288) = 6.94$, $\eta^2 = .05$, $p < .01$, respectively, which was qualified by a significant interaction, $F(2, 288) = 3.04$, $\eta 2 = .02$, $p < .05$. Post-hoc analyses (LSD) were performed for each age group indicating that children's evaluations were more positive towards truth-telling for a collective than for the self: $t(104) = 14.00$, $p < .01$; $t(90 = 12.76$, $p < .01$; $t(94) = 21.13$, $p < .01$, for 7-, 9- and 11-year-olds, respectively. Again, as age increased this difference became larger (Figure 3).

A logistic regression revealed no significant relation between children's classifications of truthful and untruthful statements and their actual lying behavior. Another hierarchical logistic regression with children's actual lie- or truth-telling as the predicted variable was performed to assess the relationship between children's moral evaluations and their actual behavior. Age was first entered into the model and the model was significant, $\chi^2 = 18.13$, $df = 2$, $p < .01$; Nagelkerke $R^2 = .10$. Age was significant, $Wald = 15.80$, $df = 2$, $p < .01$. *A priori* linear contrasts were performed on Age using 7-year-olds as the reference. Significant differences were found between 7- and 9-year-olds ($Wald = 15.13$, $df = 1$, $p < .01$) and 7-and 11-year-olds ($Wald = 4.16$, $df = 1$, $p < .05$). As age increased, children became more inclined to lie to conceal their class's transgression (Figure 1).

Children's moral evaluation scores of lying for self, lying for a collective, truth-telling for self, and truth-telling for a collective were entered into the model next. The step was significant, $\chi^2 = 21.08$, $df = 4$, $p < .01$; Nagelkerke R2 = .21. However, only children's ratings of lying for a collective was significantly related to their actual behavior, $Wald = 17.82$, $df = 1$, $p < .01$. Thus, whether children would lie for their class was significantly related to their moral evaluations of the same kind of hypothetical lies even after age was partialled out.

General discussion

The present study investigated children's moral understanding of lying, their actual blue lie-telling behavior, and the relation between the two. Several major results were found. First, the majority of children of all ages categorized lies as lies and truths as truth. This result is consistent with the literature on children's categorization of lies told for the collective, lies to be polite, and lies for modesty purposes (Fu *et al*., 2007; Fu *et al*., 2001). However, this finding is inconsistent with that of Siegal *et al.* (2000) that Catholic Italian children did not categorize untruthful statements blessed by a priest to be lies. The major difference between the Siegal *et al.* study and the other studies (Fu *et al*., 2007; Fu *et al*., 2001) was that the latter did not use stories involving adult endorsement of lie-telling, which may explain the inconsistent result.

Second, with regard to children's moral choice of lying and truth-telling in the hypothetical situations, as age increased children became less inclined to choose lying to benefit the self and more inclined to select lying to benefit the collective. In terms of children's moral evaluation, with age, children became increasingly inclined to rate lying for the self more negatively than for the collective, and truth-telling for the collective more positively than for the self. These findings replicated Fu *et al.*'s (2007) results with Chinese children. One possibility for younger children being more inclined to favor options that would benefit the self may be due to the nature of the moral dilemmas used in the study. For most of the scenarios, the younger children could construe the choice to benefit the self to also benefit the collective because they might feel that the untalented child story character could succeed through effort. Indeed, there is evidence to suggest that children fail to understand that effort is constrained by ability until 11 years of age (Nicholls, 1978; Nicholls & Miller, 1984), which may explain why our younger children tended to favor the option that benefited the self more than did older children. However, this explanation cannot account for Fu *et al.*'s findings with Western children who became more inclined to favor lying for the self with increased age, the opposite to what the effort explanation would have predicted. The existing data appear to support the enculturation explanation advanced by Fu *et al*. (2007). They suggested that the developmental patterns seen in Chinese children are likely due to the fact that Chinese children become increasingly socialized to the Chinese cultural norms.

Third and most importantly, the present study revealed a significant correlation between children's actual blue lie-telling behavior and their moral choices and judgments in hypothetical situations. To the best of our knowledge, the present study is the first to report a strong significant relation between children's moral evaluation and actual lie-telling behavior (Talwar, Lee, Bala & Lindsay, 2002). It should be noted that this significant relation was only found between children's actual blue lie-telling behavior and their moral choice (Experiment 1) and judgment (Experiment 2) scores for lying for the collective. This result may be due to the fact that the behavioral measure evoked moral responses that matched the lying-for-the-collective story. This explanation may also account for the lack of correlation of blue lie-telling with the other three stories because our staged event only highlighted lying to benefit the collective with limited consequence for the self. Had we staged an event that highlighted lying to benefit the self, as did Talwar, Lee, Lindsay and Bala (2004), we might have found a significant correlation between children's self-benefiting lying behavior and their lying-for-self moral choice and judgment scores. Furthermore, if we had staged an event that fully matched the story scenarios (i.e. lie- or truth-telling would benefit the self but harm the collective or vice versa) we might have found a significant relation between children's behavior and all of the moral story measures. These possibilities need to be tested in future studies, which, if true, would suggest that children's lie-telling behavior may not be guided by some general moral principles for or against lying but rather by situation-specific moral knowledge.

Why do Chinese children increasingly favor and tell blue lies as age increases? According to Fu *et al*. (2007), two processes in Chinese children's schools are likely to play an important role in the age-related changes (Hui, 2005; Lu & Gao, 2004; Price, 1992; Qi & Tang, 2004; Wu, 1996). One process involves daily group activities at school. As soon as Chinese children enter elementary school, they are assigned not only to a class but also to a subgroup within a class, which typically remains unchanged for the entire elementary school years. Most children are also gradually selected to become members of a formal political group called the 'Young Pioneer Team'. Most of the daily school activities and extracurricular activities are organized around these formal groupings. Children are not only regularly evaluated on their academic achievements but also on their conduct and contribution to the groups. This intense socialization around group values influences Chinese children to place a strong value on groups such as the class. In turn, children may be more likely to protect their group through lie-telling behavior.

The other process involves formal educational programming. To help children learn the group-oriented values of Chinese society, Chinese schools have a long history of providing formal moral education curricula including explicit collectivist ideas. These curricula are mandated by the central government and are taught on a weekly basis. Children are explicitly taught the importance of self-sacrifice, humility, and to value groups over the self. Similar group-oriented ideas are also built into academic courses (e.g. the Chinese Language course where children are read stories about heroic figures exemplifying collectivist ideals). It is perhaps due to these processes that the Chinese children in our sample learned to favor lying or truth-telling for the collective and to act upon these ideas.

In Phase 1 of both Experiment 1 and Experiment 2 we investigated whether children would tell a lie to protect their class. However, it was ambiguous whom the child's lie would harm, or if the lie would harm anyone at all. As our results demonstrated, children did indeed tell such lies and more importantly their tendency to lie was significantly related to their moral judgments of lying for the collective. In the future it is also important to examine what factors would increase or decrease children's tendency to tell a blue lie, which would be extremely valuable to understand deeply the underlying mechanisms in blue lie-telling behavior in children. The present study is only the first step to such a deep understanding.

It should be noted that most of our participants chose not to tell a blue lie. Given the high intensity of the collectivist teaching that the children were exposed to, this finding is surprising. Clearly, there exist other factors in addition to age — moral understanding, the consequence of harming another and enculturation that may have affected children's tendency to tell a blue lie in the present situation. Among these factors are the likelihood of being caught lying, the repercussions for the group if the individual does not lie, and the severity of the consequences of telling on one's group. Future examination of these factors is needed to obtain a comprehensive picture of the development of blue lie-telling.

Further research is also needed to examine whether children's willingness to tell blue lies is a universal phenomenon. Fu *et al*. (2007) found that opposite to their Chinese counterparts, North American children not only eschewed lying for a collective but also endorsed lying to benefit an individual (a friend or self). Given their negative views about blue lies, the present finding may not be replicable in a Western context. In Western countries such as the United States, Canada, and the United Kingdom, the collectivistic ethos is not emphasized in classroom settings and thus children may not see the need to lie for their class. However, a factor that might be considered is the collective for whom one tells a blue lie. It is possible that although Western children do not value their class as much as Chinese children do, they might place high values on other social networks such as peer groups, in particular for adolescents (Berndt, 1979; Bixenstine, DeCorte & Bixenstine, 1976; Gould & Mazzeo, 1982). Thus, they may tell blue lies to conceal their peer group's transgressions as do Chinese children for their class.

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Appendix

Stories used in Experiments 1 and 2

Story 1 (the Math Contest Story) — Lying to help self, harm collective

Here is Xiao Su. Xiao Su's teacher was looking for volunteers to represent the class in a math competition at their school. All contestants would receive a very nice souvenir. Xiao Su was not good at math. Xiao Su thought to herself/himself:

A. 'If I volunteer, our class will not do well at the math competition, but if I don't volunteer, I will miss out on the chance to receive that nice souvenir.'

B. 'If I don't volunteer, I will miss out on the chance to receive that nice souvenir, but if I do volunteer, our class will not do well at the math competition.'

Experiment 1: Then the teacher asked Xiao Su, 'Are you good at math?' If you were Xiao Su, what would you do? Would you give yourself a chance to receive the nice souvenir and tell your teacher you are good at math or would you help your class and tell your teacher you are not good at math?

Experiment 2: When the teacher asked Xiao Su, 'Are you good at math?', Xiao Su decided to give herself/himself a chance to receive the souvenir so she/he said 'Yes, I am good at math. I want to volunteer in the competition.'

Story 2 (the Singing Contest Story) — Lying to help the collective, harm the self

Here is Xiao Lin. The school Principal went to Xiao Lin's class and picked him/her and three other children to represent the class in a singing competition at the school. All participants would receive a very nice prize. Xiao Lin was excited to sing in the competition but he/she could not sing very well and he/she thought to himself/herself:

A. 'If I sing in the competition our class will lose but I will get the nice prize. But if I say I feel sick, I won't have to go in the competition. Then a good singer will take my place and the class will do better, but I will not get the nice prize.'

B. 'If I say I feel sick, I won't have to go in the competition. Then a good singer will take my place and the class will do better, but I will not get the nice prize. If I sing in the competition our class will probably lose but I will get the nice prize.'

Experiment 1: Then the principal asked Xiao Lin if he/she was ready for the singing competition. If you were Xiao Lin, what would you do? Would you give yourself a chance to get the nice prize and tell your teacher you are a good singer or would you help your class and tell your teacher you are sick so a good singer can take your place in the competition?

Experiment 2: When the principal asked Xiao Lin if he/she was ready for the singing competition, Xiao Lin decided to help his/her class. Although Xiao Lin was not sick, he/she told his principal, 'I am sick today, I cannot sing in the competition.'

Story 3 (the Basketball Contest Story) — Telling the truth to help the self, harm the collective

Here is Xiao Zhao, who was a member of the school basketball team. Xiao Zhao was the team's star player and because of him/her the team had won many games. One evening there was a very important basketball game but Xiao Zhao had hurt his/her arm and wasn't sure if he/she should play. Xiao Zhao thought to himself/herself:

A. 'If I don't play tonight, the basketball team may not win this very important game, but if I do play, I may hurt my arm even more.'

B. 'If I do play, I may hurt my arm even more, but if I don't play tonight, the basketball team may not win this very important game.'

Experiment 1: Then the Coach asked Xiao Zhao, 'Are you okay to play tonight?' If you were Xiao Zhao, what would you do? Would you take care of your arm and tell your coach that you

were not okay to play because you hurt your arm or would you help your team and tell your coach your arm was fine and you were okay to play?'

Experiment 2: When the Coach asked Xiao Zhao, 'Are you okay to play tonight?', Xiao Zhao decided to take care of his/her arm and said, 'No, I am not okay to play because I hurt my arm.'

Story 4 (the Running Contest Story) — Telling the truth to help collective, harm self

Here is Xiao Ming. It was track and field day at Xiao Ming's school and he/she was the best runner in the class. The class counted on Xiao Ming to help them win the running competitions. Before the race, Xiao Ming tripped and fell on his/her knees. Although Xiao Ming did not injure his/her knees and could still run, he/she didn't feel like running today because he/she wanted to go to the library to finish an exciting book he/she was reading. So he/she thought to himself/herself:

A. 'If I go to the library to read my book, the class will not do well at the races. But if I run in the races I won't get to finish reading my exciting book today.'

B. 'If I run in the races I won't get to finish reading my exciting book today. But if I go to the library to read my book, the class will not do well at the races.'

Experiment 1: Then the teacher asked Xiao Ming if he/she was ready to run in the race. If you were Xiao Ming, what would you do? Would you finish reading your exciting book and tell your teacher you were not ready to run in the race because you hurt your knees or would you help your class and tell your teacher you were ready to run in the race?

Experiment 2: When the teacher asked Xiao Ming if he/she was ready to run in the race, instead of telling her he/she was going to the library to finish his/her exciting book, Xiao Ming decided to help his/her class. So he/she said, 'Yes, I'm ready to run in the race.'

References

Barnes, JA. A pack of lies: Towards a sociology of lying. Cambridge University Press; Cambridge: 1994.

Berndt TJ. Developmental changes in conformity to peers and parents. Developmental Psychology 1979;15:608–616.

Bixenstine VE, De Corte MS, Bixenstein BA. Conformity to peer-sponsored misconduct at four grade levels. Developmental Psychology 1976;12:226–236.

Bok, S. Lying: Moral choice in public and private life. Vintage; New York: 1978.

Bussey K. Lying and truthfulness: children's definitions, standards, and evaluative reactions. Child Development 1992;63:129–137.

Bussey K. Children's categorization and evaluation of different types of lies and truths. Child Development 1999;70:1338–1347.

Chandler M, Fritz AS, Hala S. Small-scale deceit: deception as a marker of two-, three-, and four-year-olds' early theories of mind. Child Development 1989;60:1263–1277. [PubMed: 2612240]

Forgas, JP.; Williams, KD. Social influence: Direct and indirect processes. Psychology Press; Sydney, Australia: 2001.

Fu G, Lee K, Cameron A, Xu F. Chinese and Canadian adults' categorization and evaluation of lie- and truth-telling about prosocial and antisocial behaviors. Journal of Cross-Cultural Psychology 2001;32:720–727.

Fu G, Xu F, Cameron CA, Heyman G, Lee K. Cross-cultural differences in children's choices, categorizations, and evaluations of truths and lies. Developmental Psychology 2007;43:278–293. [PubMed: 17352539]

Gould AW, Mazzeo J. Age and sex differences in early adolescents' information sources. Journal of Early Adolescence 1982;2:283–292.

Hartshorne, H.; May, MS. Studies in the nature of character: Vol I. Studies in deceit. Macmillan; New York: 1928.

Hui L. Chinese cultural schema of education: implications for communication between Chinese students and Australian educators. Issues in Educational Research 2005;15:17–36.

Lanate B, Nida S. Ten years of research on group size and helping. Psychological Bulletin 1981;89:308–324.

Lee, K. The development of lying: how children do deceptive things with words. In: Astington, JW., editor. Minds in the making. Blackwell; Oxford: 2000. p. 177-196.

Lee K, Cameron CA, Xu F, Fu G, Board J. Chinese and Canadian children's evaluations of lying and truth-telling: similarities and differences in the context of pro- and antisocial behaviors. Child Development 1997;68:924–934.

Lee K, Xu F, Fu G, Cameron C, Chen S. Taiwan and Mainland Chinese and Canadian children's categorization and evaluation of lie- and truth-telling: a modesty effect. British Journal of Developmental Psychology 2001;19:525–545.

Lewis, M. The development of deception. In: Lewis, M.; Saarni, C., editors. Lying and deception in everyday life. Guilford Press; New York: 1993. p. 90-105.

Lewis M, Stranger C, Sullivan MW. Deception in 3-year-olds. Developmental Psychology 1989;25:439–443.

Lu J, Gao D. New directions in the moral education curriculum in Chinese primary schools. Journal of Moral Education 2004;33:495–510.

Newton P, Reddy V, Bull R. Children's everyday deception and performance on false-belief tasks. British Journal of Developmental Psychology 2000;18:297–317.

Nicholls JG. The development of concepts of effort and ability, perception of academic attainment, and the understanding that difficult tasks require more ability. Child Development 1978;49:800–814.

Nicholls JG, Miller AT. The differentiation of the concepts of difficulty and ability. Child Development 1984;54:951–959.

Peskin J. Ruse and representations: on children's ability to conceal information. Developmental Psychology 1992;28:84–89.

Peterson CC, Peterson JL, Seeto D. Developmental changes in ideas about lying. Child Development 1983;54:1529–1535. [PubMed: 6661946]

PiagetJThe moral judgment of the child (trans. M. Gabain)1965The Free Press(original work published in 1932).New York

Polak A, Harris PL. Deception by young children following noncompliance. Developmental Psychology 1999;35:561–568. [PubMed: 10082026]

Price, R. Moral-political education and modernization. In: Hayhoe, T., editor. Education and modernization: The Chinese experience. Pergamon; New York: 1992. p. 211-238.

Qi W, Tang H. The social and cultural background of contemporary moral education in China. Journal of Moral Education 2004;33(4):466–480.

Siegal M, Peterson CC. Preschoolers' understanding of lies and innocent and negligent mistakes. Developmental Psychology 1998;34:332–341. [PubMed: 9541785]

Siegal M, Surian L, Nemeroff CJ, Peterson CC. Lies, mistakes, and blessings: defining and characteristic features in conceptual development. Journal of Cognition and Culture 2000;1:323–339.

Strichartz AF, Burton RV. Lies and truth: a study of the development of the concept. Child Development 1990;61:211–220. [PubMed: 2307041]

Talwar V, Lee K. Development of lying to conceal a transgression: children's control of expressive behaviour during verbal deception. International Journal of Behavioural Development 2002a; 26:436–444.

Talwar V, Lee K. Emergence of white-lie telling in children between 3 and 7 years of age. Merrill Palmer Quarterly 2002b;48:160–181.

Talwar V, Lee K, Bala N, Lindsay RC. Children's conceptual knowledge of lying and its relation to their actual behaviors: implications for court competence examinations. Law and Human Behavior 2002;26:395–415. [PubMed: 12182530]

Talwar V, Lee K, Lindsay RC, Bala N. Children's lie-telling to conceal a parent's transgression: legal implications. Law and Human Behavior 2004;28:411–435. [PubMed: 15499823]

Talwar V, Murphy SM, Lee K. White lie-telling in children for politeness purposes. International Journal of Behavioral Development 2006;30:1–11.

Wilson AE, Smith MD, Ross HS. The nature and effects of young children's lies. Social Development 2003;12:21–45.

Wu, DYH. Chinese childhood socialization. In: Bond, MH., editor. Handbook of Chinese psychology. Oxford University Press; Hong Kong: 1996. p. 43-154.

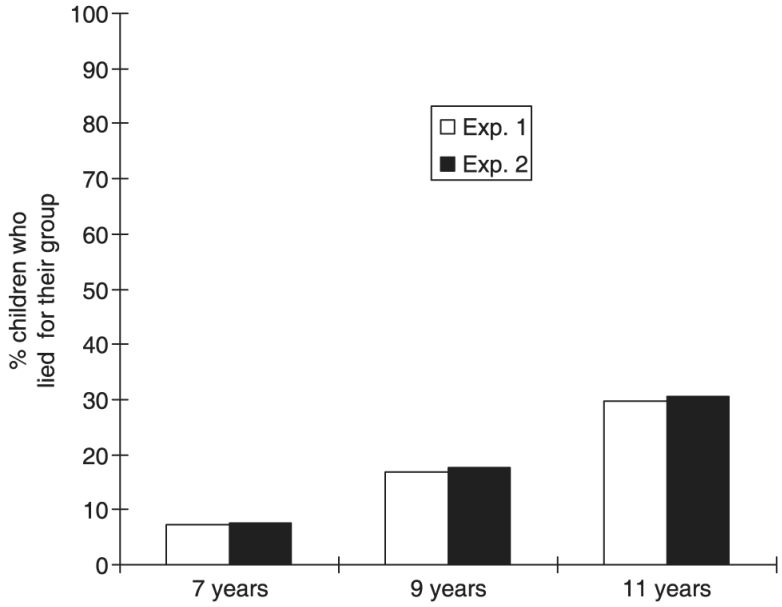

Figure 1.
Percent of 7-, 9-, 11-year-olds who lied for their class by age in Experiments 1 and 2 when they faced a real-life situation where they had to choose to lie or tell the truth about their group's cheating behavior.

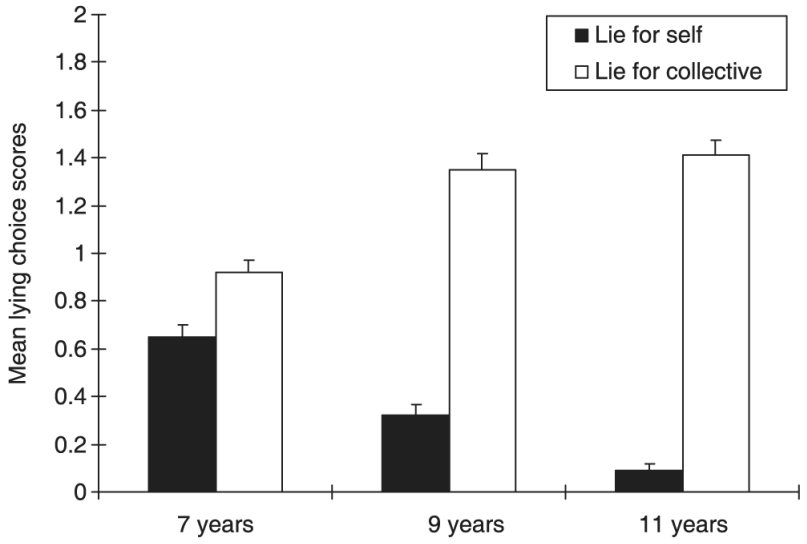

Figure 2.
Seven-, 9-, and 11-year-old children's mean lie-for-self and lie-for-collective choice scores in Experiment 1 where they faced hypothetical moral dilemmas and had to choose to lie or tell the truth for a collective or self (the bars represent standard errors).

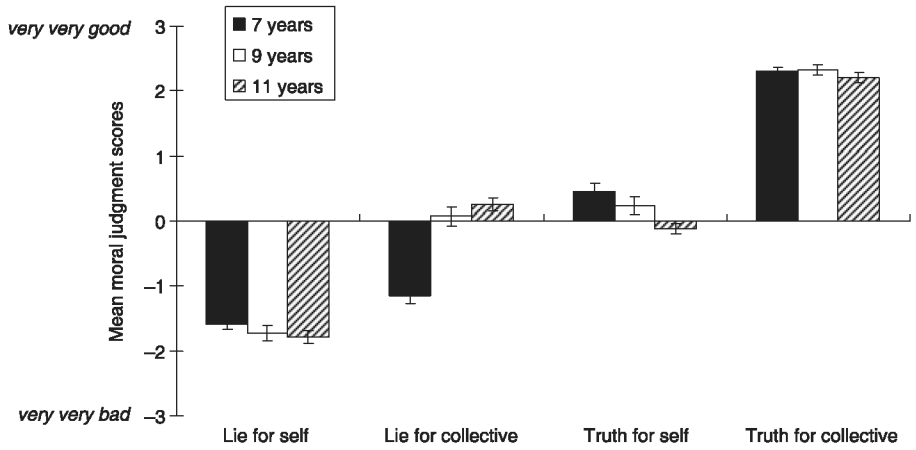

Figure 3.
Seven-, 9-, and 11-year-old children's mean moral judgment scores in Experiment 2 where they evaluated story characters' decision to lie or tell the truth for a collective or self when the story characters encountered moral dilemmas of lie- or truth-telling (the bars represent standard errors).

Table 1

Frequency (%) of children in Experiment 2 who classified a statement as a lie, the truth, or something else for each story

Age	Lie for self story		Lie for collective story		Truth-telling for self story		Truth-telling for collective story	
	Lie	Not lie[(a)]	Lie	Not lie[(a)]	Truth	Not truth[(b)]	Truth	Not truth[(b)]
7	98 (93.3%)	7-3/4[(c)] (6.7%)	96 (91.4%)	9-5/4 (8.6%)	99 (94.3%)	6-2/4 (5.7%)	103 (98.1%)	2-0/2 (1.9%)
9	85 (93.4%)	6-0/6 (6.6%)	80 (87.9%)	11-3/8 (12.1%)	82 (92.3%)	9-5/4 (7.7%)	87 (95.6%)	4-0/4 (4.4%)
11	91 (95.8%)	4-2/2 (4.2%)	70 (73.7%)	25-2/23 (26.3%)	89 (93.7%)	6-1/5 (6.3%)	93 (97.9%)	2-2/0 (2.1%)

For example: 7-3/4 here means that 7 children classified an untruthful statement not as a lie, of whom 3 gave the 'truth' responses and 4 gave the 'neither responses'. The lower score always represents the neither category.

(a) *Note*: Not lie includes both truth and neither responses

(b) Not truth includes both lie and neither responses

(c) Where the truth and neither or the lie and neither responses differed they were noted.

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