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Repeated Questions, Deception, and Children's True and False Reports of Body Touch

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Abstract

Four- to 7-year-olds' ability to answer repeated questions about body touch either honestly or dishonestly was examined. Children experienced a play event, during which one third of the children were touched innocuously. Two weeks later, they returned for a memory interview. Some children who had not been touched were instructed to lie during the interview and say that they had been touched. Children so instructed were consistent in maintaining the lie but performed poorly when answering repeated questions unrelated to the lie. Children who were not touched and told the truth were accurate when answering repeated questions. Of note, children who had been touched and told the truth were the most inconsistent. Results call into question the common assumption that consistency is a useful indicator of veracity in children's eyewitness accounts.

Keywords

children; memory; suggestibility; repeated questions

Despite a large body of literature concerning children's suggestibility and false memory, little research has focused on children's intentional false reports. This lack of attention is noteworthy in light of claims that intentional deception accounts for a sizeable minority of children's false allegations of sexual abuse (e.g., those arising in the midst of custody disputes; Green, 1991). The purpose of the present study was to determine how well children maintain a knowingly false report about a brief personal experience. Specifically, we examined children's ability to lie about body touch when asked repeatedly about it, and we compared children's intentionally false reports to children's true reports of the same event.

Deceptive Abilities in Young Children

Although relatively few studies have systematically examined children's ability to maintain a coached lie about a fictitious event, studies have found evidence for basic deceptive abilities even in relatively young children. For instance, by age 3, children can keep simple

secrets, both spontaneously and when asked to do so by an adult (e.g., Bottoms, Goodman, Schwartz-Kenney, & Thomas, 2002; Talwar & Lee, 2002; Wilson & Pipe, 1989). Moreover, by age 6, children can provide false statements to back up their secrets (Tye, Amato, Honts, Devitt, & Peters, 1999).

Yet, omitting information to keep a simple secret is different from creating an intentional false report, and only a paucity of studies has investigated this latter type of deception. Extant findings, however, suggest that young children can, at least in some contexts, also maintain brief lies of commission. Feldman, Jenkins, and Popoola (1979), for instance, found that first graders could, when instructed, both falsely claim that sour juice tasted sweet and engage in brief appropriate behaviors (e.g., fake smiles) to support the lie. Orcutt, Goodman, Tobey, Batterman-Faunce, and Thomas (2001) had 7- to 9-year-olds lie during a mock forensic interview and say that stickers were placed on their bare skin (rather than clothing) during a prior play session. Not only were the children able to follow the instructions, but, to adults serving as mock jurors, the children's lies were indistinguishable from statements provided by children who told the truth about having stickers placed on their bare skin. Of note, in these studies, children engaged in activities related to the lie (drank juice, had stickers placed on their clothes). The lie simply required that children alter specific event details. Also, the children were not asked repeatedly about the lie. Thus, although young children have some intentional deceptive capabilities, it remains unclear as to whether they are similarly competent when asked to lie about an entirely false action (i.e., touch when none occurred, a personal event that has potential relevance to legal cases) and are repeatedly asked about it. Finally, it is unknown as to whether maintaining that lie affects children's ability to report other information unrelated to the lie.

Effects of Repeated Questions on Accuracy, Consistency, and Deception

In legal contexts, exposure to repeated questions and interviews is common for many child witnesses (e.g., Garven, Wood, Malpass, & Shaw, 1998; Goodman et al., 1992; Malloy, Lyon, & Quas, in press). However, considerable controversy exists concerning the effects of question repetition on children's accuracy. For instance, children may assume that if a question is repeated, the interviewer would like to know information not already reported, leading to changes over time in the content of information reported (Fivush & Schwarzmüller, 1995). Potentially more problematic is that, when questions are repeated within an interview, children may assume that their earlier answers were incorrect and completely change their previously correct responses (e.g., Poole & White, 1991). Empirical evidence confirms that repeated open-ended questions can lead to changes in what children recount, even though the information often remains accurate (for a review, see Pipe, Lamb, Orbach, & Esplin, 2004). In contrast, repeated closed-ended questions may inhibit accuracy, although findings are mixed. For instance, Scullin and Ceci (2001) reported decreased accuracy the second time children were asked yes/no questions about the content of a brief video they saw, whereas Lyon, Malloy, Quas, and Talwar (2006) reported few changes in children's responses to repeated yes/no questions about an interaction with an adult. It is unknown as to whether children are willing to change their responses when asked repeatedly about body touch, which may well be the focus of questions during an investigation of maltreatment and whether children's answer-changing is affected by pressures to maintain a particular response.

In general, the aforementioned research indicates that inconsistencies are not uncommon when children describe true experiences. Yet, inconsistencies are commonly viewed as reflecting low accuracy (Leippe, Manion, & Romancyzk, 1992). In fact, according to Content Based Criteria Analysis (CBCA), a coding procedure developed to identify more versus less reliable accounts of child sexual abuse, less cohesive and less structured reports (which may be reflected in inconsistent statements) are both indicators of a less reliable

allegation. (e.g., Raskin & Esplin, 1991). Furthermore, in legal contexts, witnesses, including children, are often cross-examined about earlier statements that are inconsistent with later testimony. In fact, this cross-examination strategy is one of the most common methods of impeaching witness credibility in U.S. trials.

Of note, in addition to truth-tellers at times appearing inconsistent, under certain conditions, children who are lying may be particularly consistent. For one, the request for children to lie often comes after the experience has occurred. Because memory fades over time (e.g., Cowan, 2001; Hitch & Baddeley, 1976), the lie's contents may simply be remembered better than the original event. Second, when coaching children to lie, children likely must practice or rehearse the lie, and rehearsal enhances memory (e.g., Craik & Lockhart, 1972; Guy & Cahill, 1999), potentially leading to high levels of consistency when answering lie-related questions shortly after coaching takes place.

As a final point, although children may be able to maintain a consistent lie when asked repeated questions, the process of doing so may adversely affect children's ability to answer repeated questions unrelated to the lie. Remembering and rehearsing a lie requires cognitive resources. By devoting resources to the lie, children may have difficulty conducting an adequate memory search for other event details (Case, 1991). Also, because the verbatim trace of the lie is salient and inconsistent with children's faded original gist memory (Brainerd & Reyna, 2002), children may discount their original memory and only describe the lie's contents. Such a possibility would lead to high consistency when answering lie-related repeated questions but low accuracy and inconsistency when answering lie-unrelated repeated questions.

STUDY OVERVIEW

In the current study, children came to a research laboratory and played with an adult confederate. During the play event (Session 1), none of the children was touched on the toes or ears but some children were touched on the bare skin of their stomach, nose, and neck. After 1 to 3 weeks (Session 2), children were interviewed about what happened. Immediately prior to the interview, some children who had not been touched were instructed to lie and say that they had been touched on the stomach, nose, and neck. The remaining children were instructed to tell the truth. Thus, three experimental conditions were included: (a) children who had not been touched but were coached to lie and say they were (Lying), (b) children who had been touched and were told to be truthful (Truth Touched), and (c) children who had not been touched and were told to be truthful (Truth Not Touched). The interview included repeated questions about whether children were touched on the stomach, nose, and neck (i.e., target touches associated with the truth or lie) and the toes and ear (i.e., false touches). Study procedures were approved by appropriate university Institutional Review Boards.

Hypotheses were as follows: First, when answering repeated questions about target touches, the liars were expected to be more consistent than the truth-tellers. The liars rehearsed the lie immediately before the interview and could rely on their verbatim memory to answer lie-related questions. The truthful children had to rely on their less-detailed and faded original-event gist memory. Second, when answering repeated questions about false touches, liars were hypothesized to be the least accurate. Maintaining the lie may limit resources available to conduct an adequate memory search and accurately answer questions unrelated to the lie. Third, among truth-tellers, those who were not touched were predicted to be more accurate than those who were touched. The former had fewer details to remember and could answer "no" to all touch questions, whereas the latter had to answer "yes" to some and "no" to other questions. Confusion among touch locations could increase errors (Pezdek & Roe, 1997).

METHOD

Participants

Participants included 35 children, ages 4 to 7 years ($M = 73.40$ months, range = 58–94; 17 boys; most of whom were Caucasian, non-Hispanic). This age range was selected because it is consistent with ages of children included in many prior studies of deception in children (e.g., Orcutt et al., 2001; Tye et al., 1999) and because concerns about false reports are substantial when children are questioned about abuse. Families were recruited from a database of largely middle-class parents on the West coast who were interested in research. Children were randomly assigned to an experimental condition: Lying (6 boys, 5 girls, $M = 76.4$ months), Truth Touched (6 boys, 7 girls, $M = 72.01$ months), and Truth Not Touched (5 boys, 6 girls, $M = 73.4$ months).

Two clinical psychologists and 20 social workers (age 24–53 years, $M = 37.36$, 4 men) served as interviewers. (Mental health professionals participated as interviewers because some of the child and interviewer participants also completed a larger project concerning hearsay testimony, which occurred following the sessions described here. Recruitment and testing procedures in the current study were consistent with those employed in the larger study [Goodman et al., 2006].) All interviewers had received training in questioning abuse victims and had previously interviewed abuse victims. Interviewers were blind to what had occurred in the play session, the hypotheses, and the possibility that children might not be telling the truth. Thirteen interviewers questioned two children of the same age, gender, and experimental condition. Nine interviewers questioned only one child due to scheduling conflicts.

Procedure

Session 1—When families arrived at the laboratory, parental written informed consent to participate was obtained. Children were then escorted to a separate room to play individually with the male confederate. Children in the Truth Touched condition were touched twice on their stomach, nose, and neck (target touches). None of the children was touched on their toes or ears (false touches).

Session 2—Following a 1- to 3-week delay ($M = 11.24$ days, $SD = 5.0$), children returned for the memory interview. Immediately prior to the interview, a female graduate researcher who had interacted with the family during the prior session asked children in the Lying condition to say that they had been touched on the stomach, nose, and neck during the play event. She specifically asked children to play a game and trick the interviewer into believing that they had been touched (no other incentive to lie was included). Children were given two practice questions (e.g., “If I asked you whether the man touched the skin on your stomach, what would you say?”) to ensure that they understood the instructions. They were then asked to answer all other interview questions honestly and given two practice questions regarding non-lie-related details (e.g., “If I asked you whether the man touched your toes, what would you say?”). All children successfully answered the practice questions, and parents were present during the coaching. The researcher encouraged children in the two truth conditions to tell the truth during the interview.

In all conditions, after providing the appropriate preinterview instructions, the researcher escorted the child and parent to a separate room for the interview. The interviewer explained that she or he would ask the child questions, that the child should answer as best as possible, but the child could answer “do-not-know.” The interviewer then read the questions verbatim. First were two free-recall questions about what happened (e.g., “Tell me what happened the last time you were here”). Next were 22 direct (9 short answer, 13 yes/no)

questions concerning specific play event details. They began with the question, “Where did the man touch you?” Other short-answer questions, interspersed throughout the interview, asked how many times the child was touched on each target location (e.g., “How many times did the man touch your neck?”), how long ago the child had played, who else was in the room, the confederate’s name and gender, and how many times the child played. The yes/no questions included three each about whether the child was touched on the target locations (e.g., “Did the man touch you on your bare stomach?”) and two each about whether the child was touched on the false locations.

At the end of the interview, the researcher returned and told the child he or she did a great job. Children in the Lying condition were reminded of the importance of telling the truth in other situations. So that children did not leave thinking they had tricked the interviewer, she or he returned, thanked the children, and said that the experimenter explained what happened.

Scoring

Three sets of scores were computed. First, children’s free recall was coded for units of information using an established protocol (e.g., Quas & Schaaf, 2002), with proportion agreement between two coders $\geq .85$ on 21% of interviews. Units were composed of meaningful pieces of information about the play session (e.g., the statement “The man touched my shoulder” received four correct units: “man,” “touched,” “my,” and “shoulder”). Claims of touch on the nose, neck, and stomach for children in the Lying condition were coded as correct (i.e., correct with lie instructions). Consistent with prior studies, children rarely provided any incorrect information ($M_s = 0$ to 1.1 units across conditions) and incorrect units are not considered further.

Second, three direct question accuracy scores were computed. First, the number of accurate responses to yes/no direct questions concerning whether the child was touched on the target touch locations (stomach, nose, and neck) was counted and divided by the number of questions asked. For children in the Lying condition, responses that were consistent with the lie were coded as accurate, leading to an accuracy-as-told score for these children. Second, the number of accurate responses to yes/no questions about the two false touch locations (ears and toes) was summed and divided by the number of questions asked. Third, the number of accurate responses to nontouch questions was summed and divided by the number of nontouch questions asked. Thus, the accuracy proportions reflect accuracy-as-told for liars with respect to the lie details but accuracy-as-happened with respect to other details.

Third, two consistency scores were created. Children’s response to each direct question about touch was compared to their next response about the same touch location. Identical responses received a score of 1, and inconsistent responses received a score of 0. Thus, a child who said that she was touched on the nose when asked “Where did the man touch you?” but then answered “no” to the next question, “Did the man touch your nose?” received a 0 for that comparison. Do-not-know responses followed by either yes or no responses, or vice versa, were coded as 0 (inconsistent). For target touch questions, three comparisons were made for each touch location (because there were four questions asked per location), which were then averaged to create a target-touch consistency score. For false touch questions, two comparisons were made for each location (because there were three questions asked per location), which were again averaged to create a false-touch consistency score.

RESULTS

Preliminary analyses revealed that gender was unrelated to performance and that children's age was comparable across the three conditions. One significant relation emerged between children's age and their interview performance: With age, children provided a greater proportion of correct responses to nontouch direct questions ($r = .42, p < .05$). Due to a relatively restricted age range and the lack of substantive age-related changes in performance, age was not considered further, but covarying age did not affect any of the results reported. A one-way analysis of variance (ANOVA) revealed that the delay between sessions differed significantly across conditions, $F(2, 32) = 5.53, p < .01$ (Lying $M = 11.9$ days, Truth Touched $M = 8.2$ days, and Truth Not Touched $M = 14.2$ days). However, covarying delay did not change any results. Thus, delay is not considered further.

The study's hypotheses were tested via one-way condition ANOVAs. When children's free recall correct units were entered as the dependent measure, the model was nonsignificant, $F(2, 32) = .12$ (units of information: Lying $M = 14.3$, Truth Touched $M = 16.2$, and Truth Not Touched $M = 16.6$). Of note, only one 5-year-old child mentioned touching in free recall. This child, who was in the Lying condition, repeated the lie verbatim by explicitly saying that he had been touched on each target location. No other child mentioned (true or false) touching in free recall.

Next, the three accuracy proportion scores were entered into separate one-way ANOVAs.¹ As mentioned, for target touch questions, accuracy reflects the liars' ability to maintain the lie as requested and the two groups of truth-tellers' ability to recount what actually happened. For the false touch and nontouch questions, all children's scores reflect their accuracy in relation to what actually occurred. The model was significant when children's target touch accuracy was examined, $F(2, 32) = 4.39, p < .05, \eta^2 = .21$. Follow-up planned comparisons provided partial support for our hypotheses. As depicted in Figure 1, children who were lying about being touched and children who were telling the truth about not being touched were significantly more accurate (the former in relation to the lie) than children who actually had been touched, $F_s(1, 32) \geq 6.27, p_s < .05$. The difference in the proportion scores between the liars and children who told the truth about not having been touched was nonsignificant. The model also was significant when children's proportion accuracy scores to the false touch questions were analyzed, $F(2, 32) = 7.08, p < .01, \eta^2 = .29$. Planned comparisons revealed, as expected, that children who lied about having been touched were significantly less accurate when answering touch questions unrelated to the lie than were both groups of children who told the truth, $F_s(1, 32) \geq 8.71, p_s < .01$ (see Figure 1). The two groups of truth-tellers did not significantly differ in their accuracy to the false-touch questions. Finally, when children's nontouch direct question accuracy was examined, the model was not significant, $F(2, 32) = .62$. (All children performed near ceiling, $M_s = .98, .96, \text{ and } .98$, for children in the Lying, Truth Touch, and Truth Not Touched conditions, respectively.)

Finally, the consistency of children's reports of body touch was examined by entering children's target and false touch consistency scores into separate one-way ANOVAs. The model was significant for target touches, $F(2, 32) = 3.95, p < .05, \eta^2 = .22$ (Figure 2). Planned comparisons confirmed our hypotheses. The liars and children who were truthfully denying touch were significantly more consistent than the truth-tellers who had been touched, $F_s(1, 29-32) \geq 3.67, p_s < .05$. The consistency scores between children lying about

¹Children's target and false touch accuracy and consistency scores were computed based on different numbers of questions, and the touch locations were not counterbalanced. Thus, it was not appropriate to compare directly children's responses to the target and false touch questions.

having been touched and children telling the truth about not having been touched on the target locations were comparable. When children's false touch consistency scores were examined, the model was not significant, $F(2, 32) = .34$. Thus, although the liars were more consistent in maintaining the lie about touching than children telling the truth about true touching, the liars were not less consistent when answering touch questions unrelated to the lie (Figure 2).

DISCUSSION

The purpose of the present study was to examine the consistency of children's reports of body touch. Of particular interest was (a) whether children could maintain an intentionally false report of body touch within an interview when asked repeatedly about it, (b) the consequences of maintaining the lie on children's accuracy in response to questions unrelated to the lie, and (c) whether children's lies were more consistent than children's true reports of body touch.

Findings revealed first that children were able to maintain the lie about body touch fairly effectively when asked repeated, direct questions during a mock forensic interview. These results extend research indicating that children can maintain secrets and falsify simple information when coached to do so (e.g., Pipe & Wilson, 1994; Tye et al., 1999). Children also can maintain simple false reports about never-experienced touch in the face of repeated yes/no questions—questions typically believed to lead to changes in children's answers (e.g., Siegal, Waters, & Dinwiddy, 1988). Thus, when asked direct questions in a single interview, children are not only capable of intentionally falsifying information but their false reports may be fairly consistent across repeated questions. We speculate that the opportunity to rehearse the lie immediately prior to the interview and the questions only requiring yes/no responses both likely contributed to the liars' ability to maintain consistent answers during the interview.

Second, as expected, maintaining the lie came at a cost. Liars were less accurate than truth-tellers when answering touch questions unrelated to the lie, that is, although children successfully maintained the coached lie and said that they had been touched on their stomach, nose, and neck, they were less accurate in stating that they were not touched on the ears and toes. On one hand, remembering and rehearsing the lie demanded cognitive resources, limiting those available to answer other questions accurately. On the other hand, however, because the liars performed comparably to truth-tellers in free recall and in response to the nontouch direct questions, maintaining the lie did not inhibit their overall memory for the play event. Accordingly, having limited resources to conduct the memory search did not likely underlie the liars' reduced accuracy. Instead, they appeared to overgeneralize the lie and answer "yes" when asked about all touch, regardless of whether the questions' locations corresponded to the lie instructions.

Third, when children's intentionally false reports were compared to children's true reports of body touch, two noteworthy findings emerged. For one, the truth-tellers who had been touched were significantly less accurate and less consistent in their responses than were the liars and the children who had not been touched and told the truth. Our finding that children who were touched performed poorly when answering repeated questions is similar to results of other studies that reveal children often fail to report body touch, for instance, that occurred during a social interaction (e.g., Portwood & Reppucci, 1996; Quas & Schaaf, 2002) and during a medical procedure (Saywitz, Goodman, Nicholas, & Moan, 1991). Thus, even when asked directly via yes/no questions about body touch, children who experienced such touching may not be forthcoming. The extent to which the children's omissions reflected lack of memory (e.g., because children did not encode the original event as

touching or forgot the touching; Quas & Schaaf, 2002) versus an unwillingness to disclose touching (e.g., because the children were embarrassed; Saywitz et al., 1991) needs to be examined further. Also, children who were not touched were able to deny accurately and consistently having been touched, a finding that is directly relevant to ongoing debates concerning the effects of repeated questions on children's suggestibility. Our results reveal that repeated questions are not always deleterious to children's accuracy: Asking children repeated, closed-ended, mildly leading questions about never-experienced body touch, at least during a single interview, does not uniformly lead to false allegations.

Although our findings are noteworthy in several regards, limitations also must be mentioned. First, several different interviewers questioned the children in the sample, and analyses of specific interviewer effects on performance were not possible. However, the interviewers were randomly assigned across conditions. Thus, it is unlikely that interviewers in one condition or another systematically biased children's performance. Nonetheless, in the future, characteristics of the interviewers, as well as the dynamics between interviewers and children, need to be examined (Gilstrap & Ceci, 2005). Second, the age range was restricted in this study, although it will be important in subsequent research to examine how children's ability to falsify information and answer repeated questions about their experiences varies developmentally. Third, we examined children's ability to maintain a straightforward lie in the face of closed-ended repeated questions during a single interview with their colluding parent present. It is unknown as to whether children could maintain the lie when asked open-ended questions (e.g., when best-practice interviewing guidelines are followed), when interviewed several different times, or when their parent is not present, but certainly these issues warrant continued investigation.

In closing, theoretically, these findings indicate that young children have relatively sophisticated deceptive abilities in limited social contexts, that is, they can maintain a straightforward, knowingly false report when asked to do so. Yet, maintaining that lie can lead to reduced accuracy to other questions. Practically, despite a common belief that consistency is an indicator of veracity, at times, truth-tellers can be particularly inconsistent, and thus consistency should not necessarily be taken as an indicator of veracity. Overall, factors such as the types of questions asked, the context of the interview, and children's motives must all be considered when evaluating children's potential for intentional, as well as unintentional, errors.

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Biographies

Jodi A. Quas is an associate professor in the Department of Psychology and Social Behavior at the University of California, Irvine. She obtained her PhD in 1998 from the University of California, Davis, and completed postdoctoral training at the University of California, Berkeley. Her research focuses on memory development in childhood, including children's eyewitness abilities and suggestibility, and on children's involvement in the legal system. Her research has been supported by grants from such agencies as the National Institute of Child Health and Human Development and the U.S. Department of Health and Human Services, and she has been the recipient of early career awards from the Society for the Psychological Study of Social Issues and the American Psychology–Law Society.

Elizabeth L. Davis received a bachelor of arts in psychology with honors and a bachelor of arts in criminal justice from Indiana University in 2003. Currently, she is a doctoral student in the Department of Psychology and Human Behavior at the University of California, Irvine. Her research concerns emotion and cognitive processes during childhood, including the ways that discrete emotions affect memory, information processing, and attention. She has studied the effects of sadness on memory for specific types of information, emotion regulation strategies, maltreated children's understanding of the legal system, and children's metacognitive development.

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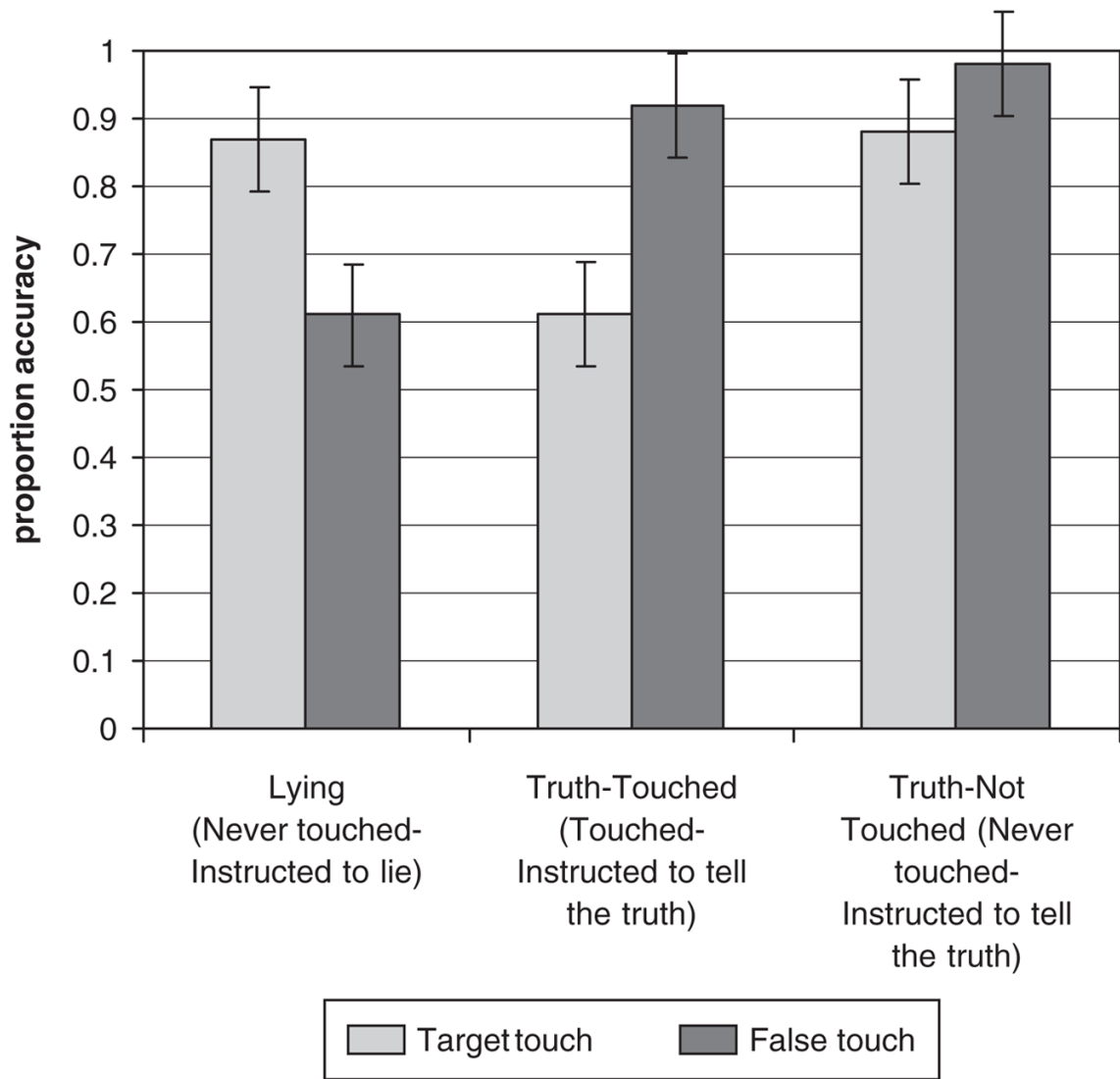


FIGURE 1. Children’s Mean Proportion Accuracy for Target and False Touch Yes/No Questions

NOTE: Bars reflect standard errors. For children in the Lying condition, accuracy reflects their “accuracy-as-told” when answering questions about the stomach, nose, and neck (i.e., their ability to maintain the lie as instructed in response to target touch questions) and their “accuracy-as-happened” when answering questions about the ears and toes (i.e., their ability to tell the truth in response to false touch questions).

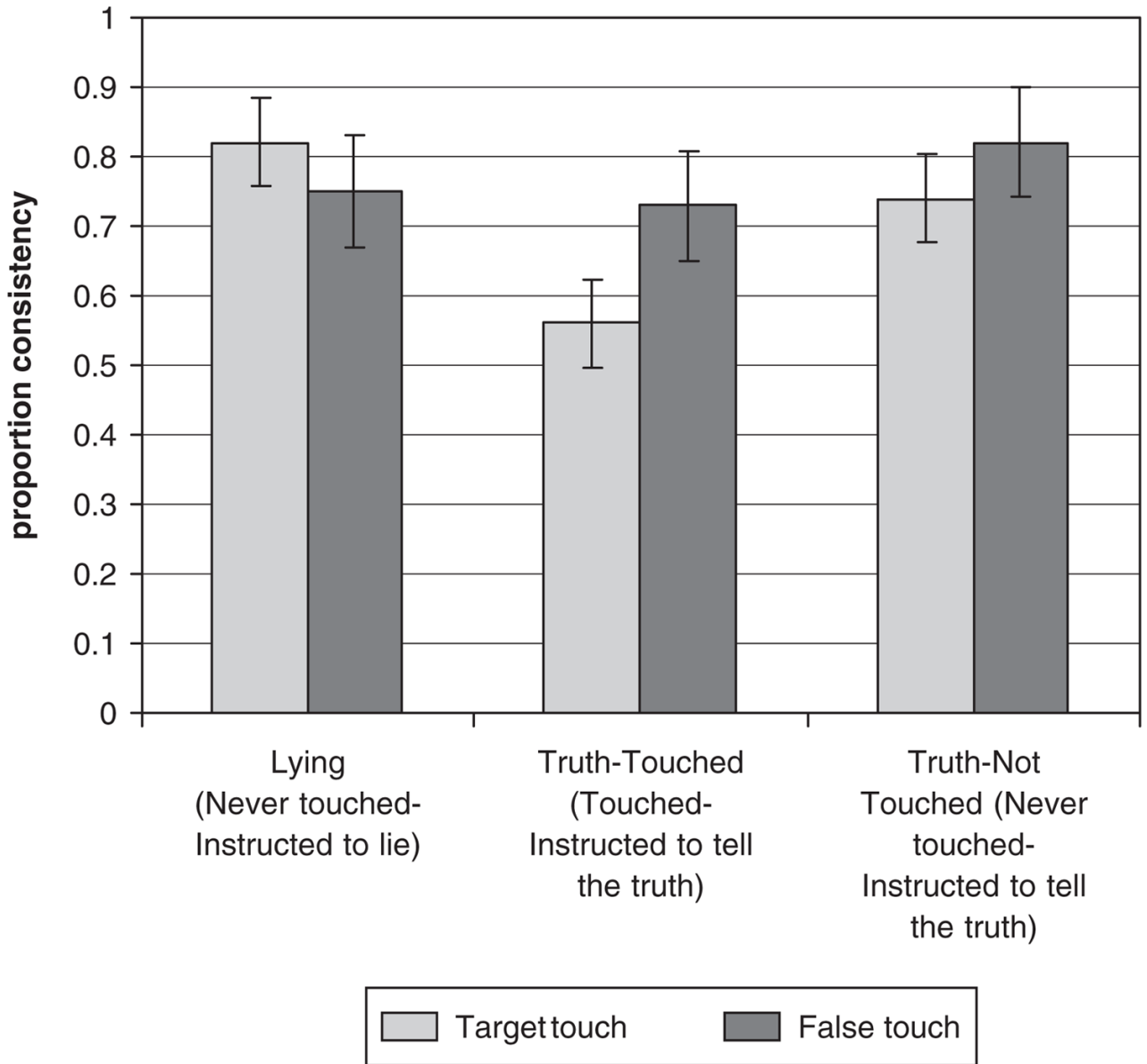


FIGURE 2. Children’s Mean Proportion Consistency Scores for Target and False Touch Questions

NOTE: Bars reflect standard errors. Consistency scores are irrespective of whether the responses were accurate. Lower scores indicate less-consistent responses (e.g., changing from do not know to yes, no to yes, or yes to no).