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Children's recantation of adult wrongdoing: An experimental investigation



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ABSTRACT

Child maltreatment cases often hinge on a child's word versus a defendant's word, making children's disclosures crucially important. There is considerable debate concerning why children recant allegations, and it is imperative to examine recantation experimentally. The purpose of this laboratory analogue investigation was to test (a) how often children recant true allegations of an adult's wrongdoing after disclosing and (b) whether children's age and caregiver supportiveness predict recantation. During an interactive event, 6- to 9-year-olds witnessed an experimenter break a puppet and were asked to keep the transgression a secret. Children were then interviewed to elicit a disclosure of the transgression. Mothers were randomly assigned to react supportively or unsupportively to this disclosure, and children were interviewed again. We coded children's recantations (explicit denials of the broken puppet after disclosing) and changes in their forthcomingness (shifts from denial or claims of lack of knowledge/memory to disclosure and vice versa) in free recall and in response to focused questions about the transgression. Overall, 23.3% of the children recanted their prior disclosures (46% and 0% in the unsupportive and supportive conditions, respectively). No age differences in recantation rates emerged, but 8- and 9-year-olds were more likely than 6- and 7-year-olds to maintain their recantation throughout Interview 2. Children whose mothers reacted supportively to disclosure became more forthcoming in Interview 2, and those whose mothers reacted unsupportively became less forthcoming. Results

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advance theoretical understanding of how children disclose negative experiences, including sociomotivational influences on their reports, and have practical implications for the legal system.

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Introduction

In September of 2011, protesters' signs claimed "Too much doubt!" as international attention focused on Troy Davis, a man facing execution for a murder conviction based solely on eyewitness testimony. Davis was executed despite the "doubt" cast by seven of the nine eyewitnesses recanting their earlier testimony against him. This case highlights the dilemma resulting from individuals changing their event accounts, especially recanting or "taking back" their prior statements in legal contexts. Recantations pose significant challenges for the criminal justice system, and their psychological explanation has implications for understanding the processes by which individuals report negative experiences. Given children's increased vulnerability to suggestion and external influences, their recantation of prior allegations, especially allegations of sexual abuse, is of great theoretical and practical interest and has been hotly debated during recent years (London, Bruck, Ceci, & Shuman, 2005).

Child maltreatment is a significant public health concern, and addressing it typically requires that children provide accurate and detailed accounts of their experiences (Lamb, Hershkowitz, Orbach, & Esplin, 2008). The nature of child maltreatment, especially child sexual abuse (CSA), means that children's disclosures may be all that exist to prosecute the crime or exonerate an innocent suspect, protect children, and make treatment decisions (e.g., Myers, 2005; Walsh, Jones, Cross, & Lippert, 2010). Children's disclosure patterns, including their ability to maintain consistent reports across multiple interviews, are used to assess their credibility and are frequently the subject of expert witness testimony (Leippe, Manion, & Romanczyk, 1992; Quas, Thompson, & Clarke-Stewart, 2005).

For decades, researchers have studied children's memory and how suggestive interview techniques can lead to false reports (Bruck, Ceci, & Principe, 2006). However, few researchers have elucidated factors associated with children's susceptibility to *deny* events that have occurred. Insight into both false allegations and false denials and the underlying reasons for inconsistencies in children's disclosures of traumatic experiences is imperative if we are to understand children's disclosure processes. Recantation is a noteworthy type of inconsistency because it typically represents a complete denial of wrongdoing post-disclosure. As discussed next, considerable controversy exists concerning why children recant sexual abuse allegations (London et al., 2005; London, Bruck, Wright, & Ceci, 2008). Extant research has largely consisted of field studies focused on prevalence rates rather than the potential causal mechanisms or correlates of recantation. The purpose of the current investigation was to conduct the first experimental study of children's recantation of adult wrongdoing to shed light on (a) how often children recant true allegations of adult wrongdoing after disclosing and (b) factors that predict recantation of true allegations. Two factors were of particular interest based on theory and prior literature: caregiver supportiveness and children's age.

Theoretical explanations of recantation of child sexual abuse

In a review of the CSA disclosure literature, London and colleagues (2005) argued that recantation of true allegations is rare and that rates are highest when study samples are more likely to contain dubious allegations. Thus, recantations may represent the retraction of false allegations. Malloy, Lyon, and Quas (2007) proposed a filial dependency model, which posits that recantation is influenced by children's vulnerability to adult familial influences. They found support for the model in a sample of substantiated 2- to 17-year-old CSA victims: Younger children, those alleging abuse against a parent figure, and those whose non-offending caregivers (i.e., children's mothers in 91% of the cases) reacted unsupportively to disclosure (e.g., expressing disbelief of the allegations, encouraging the child to

recant) were significantly more likely to recant during the investigation. In the current study, we manipulated caregiver (i.e., maternal) supportiveness and tested whether unsupportive reactions to disclosure and child age predict children's recantation of a minor act of adult wrongdoing.

Caregiver supportiveness

Caregivers, especially mothers, are typically the first recipients of children's abuse disclosures (Arata, 1998; Malloy, Brubacher, & Lamb, 2013), and field research reveals that their reactions have crucial implications for nondisclosure and recantation of CSA allegations (Elliott & Briere, 1994; Lawson & Chaffin, 1992; Malloy et al., 2007), prosecution (Cross, De Vos, & Whitcomb, 1994), and children's placement and adjustment (Goodman et al., 1992; Leifer, Shapiro, & Kassem, 1993). Reactions to CSA disclosure vary dramatically (i.e., from belief and protection to blame and punishment; Elliott & Carnes, 2001). Thus, it is imperative to determine experimentally how caregiver supportiveness affects children's disclosure of adults' transgressions. The current study represents the first to test how parental reactions to disclosure of a minor act of wrongdoing influence whether children recant their prior reports. Unlike field studies of maltreatment allegations, laboratory analogue studies examine objectively verifiable events where accuracy is measurable.

Children's age

Developmental changes in children's attitudes about secrecy, lying, deference to adult authority, and moral reasoning make the age range in the current study (6- to 9-year-olds) one of strong interest theoretically. With age, children endorse less disclosure of adult wrongdoing (Gordon, Lyon, & Lee, 2014; Lyon, Ahern, Malloy, & Quas, 2010) and expect more negative consequences of disclosure (Malloy, Brubacher, & Lamb, 2011; Malloy, Quas, Lyon, & Ahern, 2014). For example, Malloy and colleagues (2014) found that 8- and 9-year-olds were less likely than 6- and 7-year-olds to expect disclosure recipients to respond with formal intervention (e.g., calling the police) when a parent, rather than a stranger, had committed an act of wrongdoing. This is perhaps because older children are both better able to recognize reasons for concealing wrongdoing and better equipped to do so cognitively (Bussey, 2010; Bussey & Grimbeek, 1995). However, disclosure tends to increase when direct or suggestive questions are asked (Bottoms, Goodman, Schwartz-Kenney, & Thomas, 2002; Lyon, Malloy, Quas, & Talwar, 2008; but see Hershkowitz, Orbach, Lamb, Sternberg, & Horowitz, 2006). Furthermore, although Malloy and colleagues' (2007) overall recantation rate was 23.1% among substantiated CSA cases, the rates were 18% and 41% among 6- and 7-year-olds ($n = 34$) and 8- and 9-year-olds ($n = 37$), respectively. By focusing on an age range during which children experience considerable change in relevant areas, the current study advances knowledge concerning the relations between children's age and disclosure processes.

The current study

This study conformed to a 2 (Age: 6 and 7 years vs. 8 and 9 years) \times 2 (Caregiver Supportiveness: supportive vs. unsupportive) between-participants design. Children interacted with an experimenter who broke a puppet and requested that children keep it a secret (Gordon et al., 2014; Talwar, Lee, Bala, & Lindsay, 2004). Children were then interviewed twice—once after their mothers reacted either supportively or unsupportively to children's disclosure of the experimenter's wrongdoing in Interview 1. We expected children in the unsupportive condition to recant more than children in the supportive condition. In addition, we anticipated that older children would be more likely to recant, especially those in the unsupportive condition.

Method

Participants

In total, 84 children participated, but 11 were excluded from the analyses (7 children failed to disclose the wrongdoing in Interview 1, 2 children's mothers were incapable of communicating in

English, 1 child became ill, and 1 child became upset during the session). The final sample comprised 73 6- to 9-year-olds ($M_{\text{age}} = 7.50$ years, $SD = 1.12$; 38 6- and 7-year-olds and 35 8- and 9-year-olds; 47% male) and their mothers who were randomly assigned to be supportive ($n = 36$) or unsupportive ($n = 37$). The sample was representative of the ethnically diverse child population of the southeastern United States county from which children were drawn (83.6% Hispanic, 9.6% Black non-Hispanic, and 6.8% White non-Hispanic). Families were diverse in terms of annual household income (26.4% less than \$15,000–\$45,000, 43.0% \$45,000–\$75,000, and 30.6% \$75,000–\$100,000 or above). The sample size was based on a power analysis for a logistic regression (power = .80, $\alpha = .05$) with large effect size estimates for child age and caregiver supportiveness (Malloy et al., 2007). The initial and analytic samples did not differ significantly in terms of child age, gender, or ethnicity; assigned supportiveness condition; or family income.

Materials and procedure

All study procedures were approved by the relevant university's institutional review board. A research assistant (RA) described the study in detail to parents, including its deceptive components, and obtained informed consent. Children provided assent after an RA described the study in a developmentally appropriate manner (e.g., that they could stop at any time). The RA told children that they would be participating in a first aid and safety event but did not mention the broken puppet.

Staged event

Children participated in a 15-min interactive “health and safety” event (Brown, Lewis, Lamb, & Stephens, 2012), which was adapted for the current study. The event was scripted, recorded via a hidden video camera, and conducted individually. The experimenter first drew children's attention to a box marked “Do Not Touch” and said, “Oh, this isn't supposed to be here. My friend told me she needed to take these toys to a school later. We can't play with them because they're very fragile. I'll just put them off to the side.”

Children visited three “stations”: temperature check, care of cuts, and dangers. At the dangers station, children identified hazards illustrated on posters. Then, the experimenter took out three puppets relevant to dangerous situations from the “Do Not Touch” box and explained, “I know we are *not supposed to touch* them, but I think it will be okay as long as we are *very careful* with them since they are fragile.” The experimenter encouraged children to put on the doctor and police officer puppets while the experimenter put on the fireman puppet, which was designed to break in the experimenter's hands. The experimenter exclaimed, “Oh no! I broke it! We shouldn't have touched these puppets when we were told not to. I'll just put them away and maybe nobody will notice. Let's have this be our secret and not tell anybody that the fireman puppet broke. I might get into trouble if anyone finds out that I broke the puppet!”

Interview 1

A different RA (Interviewer 1) interviewed children immediately following the event to minimize the likelihood that children would forget the broken puppet component. Interviewers used a modified version of the National Institute of Child Health and Human Development (NICHD) Investigative Interview Protocol, which is a developmentally appropriate, empirically based method for obtaining event reports from children (see Lamb et al., 2008). Interviewers tested whether children understood the concepts of truths and lies, reminding children that “When we talk today, you should only tell me about things that are *really* true, that *really* happened to you.” Then, Interviewer 1 explained that it is okay to say “don't know” and to correct the interviewer if she says something that is wrong, and she had children practice responding to relevant situations. First, Interviewer 1 built rapport with children. Then, Interviewer 1 asked about the staged event by first using an open-ended invitation prompt (“I know that a lady talked to you about health and safety. I wasn't there, but I'd like to know *all* about what happened. Tell me everything that happened from the beginning to the end as best you can”). During free recall, Interviewer 1 followed up on each item mentioned by children with an appropriate cued invitation (e.g., “You said that you [did a temperature check station; played with puppets].

Tell me more about that”; “And then what happened?”). These questions probed for additional event details but did not introduce any interviewer input or new information.

After children’s free recall was exhausted, Interviewer 1 asked the same series of focused and suggestive questions to all children. This “funnel” approach (open-ended prompts, focused questions, and suggestive questions) was done to avoid biasing children’s initial free recall. Focused questions ($n = 11$) were “wh” or yes/no questions that inquired about specific aspects of the event (e.g., “How many stations were there?”). Three focused questions probed about the puppets directly (“Did you touch any of the puppets?”; “Did you break one of the puppets?”; and “Did the lady break one of the puppets?”) but did not suggest a desired response. Suggestive questions ($n = 10$) communicated the desired response via a tag question (e.g., “You took the lady’s temperature in her ear, right?”), presupposed that certain false event elements occurred (e.g., “Why did the lady give you a hug in the room?”), or were asked twice with the second time in a highly skeptical tone. Three suggestive questions inquired about the puppets (“Did you put one of the puppets on?”, which was repeated in a skeptical tone; “When the lady broke the puppet, was she happy or mad?”; and “Which one of the puppets did the lady break?”).

If children failed to disclose the broken puppet by the end of the suggestive questions, Interviewer 1 confronted children with evidence of the broken puppet: “It looks like the puppet is broken. Tell me what happened to it.”

Peabody Picture Vocabulary Test-IV

To control for potential differences in children’s verbal ability, a different RA (Interviewer 2) administered the Peabody Picture Vocabulary Test-IV (PPVT-IV), which is a standardized test of children’s receptive vocabulary normed on a nationally representative sample (Dunn & Dunn, 2007). Then, Interviewer 2 left the room to allegedly retrieve a form, which allowed mothers to implement the caregiver supportiveness manipulation.

Caregiver supportiveness

Children were randomly assigned to either the unsupportive caregiver or supportive caregiver condition. Children’s mothers interacted with their children alone following a script that they had practiced with an RA. In the unsupportive condition, mothers said, “I heard you told that the lady broke the puppet. The lady will probably get into big trouble for that! So, if anyone asks you again, I think you should try to fix it and say that she *didn’t* break the puppet.” Mothers in the supportive condition said, “I heard you told that the lady broke the puppet. You did a great job telling the truth about what happened! So, if anyone asks you again, you should *keep telling* the truth about the lady breaking the puppet.” Mothers were trained to keep their interactions brief and to strictly adhere to the script.

Interview 2

Interviewer 2, who was blind to children’s caregiver supportiveness condition, returned after mothers exited the testing room. To examine whether children recanted their prior disclosure, Interviewer 2 questioned children about the event using the same procedure for free recall and identical focused and suggestive questions as in Interview 1. Interviewer 2 acknowledged that children had already discussed the event but explained that they had lost Interviewer 1’s notes and, thus, needed children to tell everything that happened again, reminding children that “You should only tell me about things that really happened, and you should correct me if I make a mistake or say something wrong.” No additional rapport building was conducted because Interviewer 2 had already interacted with the children when administering the PPVT-IV.

Parent and child self-report measures

To control for potential differences in parent–child relationship quality, children’s attachment, and parenting style, parents completed the Parenting Styles and Dimensions Questionnaire (Robinson, Mandlco, Olsen, & Hart, 2001) and the Child–Parent Relationship Scale (Pianta, 1992), and children completed the Attachment Security Scale (Kerns, Klepac, & Cole, 1996) and the Parental Warmth, Support, and Hostility Scale (Conger et al., 2002). Half of the children were randomly assigned to complete these measures at the beginning of the study, and half completed them at the end.

Debriefing

With the children's mothers present, an RA told children that they knew that the puppets would probably break and that no one was in trouble. In addition, the RA explained that the mothers' involvement was to help the researchers learn how children talk about things that have happened and emphasized the importance of telling adults the truth. Parents received a \$50 gift card for their participation, and children received a small prize.

Coding and data reduction

Children's interviews, the caregiver supportiveness manipulation, and the puppet incident were transcribed verbatim and checked for consistency with our scripts. First, we dichotomously coded whether children explicitly acknowledged that the puppet was broken (0 = not disclosed, 1 = disclosed) and whether they mentioned the puppets for any reason (0 = not mentioned, 1 = mentioned) in Interview 1. We coded the section of Interview 1 in which children initially disclosed that the puppet was broken into one of four mutually exclusive categories ranging from most to least open-ended prompts (i.e., free recall, focused questions, suggestive questions, and confrontation) and noted the specific question(s) to which children disclosed.

We scored Interview 2 for whether children recanted (0 = did not recant, 1 = recanted), which was defined as children explicitly denying that the puppet was broken. A simple failure to disclose and "don't remember," "don't know," or reluctant (e.g., "I can't tell you that," "It's a secret") responses were not considered recantations. Furthermore, we coded the section of Interview 2 in which children first recanted into one of three mutually exclusive categories (i.e., free recall, focused questions, or suggestive questions) and noted the specific question(s) to which children recanted. In addition to coding whether children fully recanted, we examined whether children became more or less forthcoming about the experimenter's wrongdoing in free recall and in responses to the first focused questions about their own wrongdoing (i.e., "Did you touch one of the puppets?") and the experimenter's wrongdoing (i.e., "Did the lady break one of the puppets?") across Interviews 1 and 2. Specifically, we considered children who disclosed the broken puppet in free recall in Interview 1 but did not do so during free recall in Interview 2 as less forthcoming, whereas children who failed to disclose the broken puppet in free recall in Interview 1 but did so during free recall in Interview 2 were more forthcoming. Regarding the two focused questions, children who shifted their responses toward nondisclosure (e.g., disclosure in Interview 1 to denial in Interview 2; disclosure in Interview 1 to "don't know" in Interview 2) were coded as less forthcoming. Children who shifted their responses toward disclosure (e.g., denial in Interview 1 to disclosure in Interview 2; "don't know" in Interview 1 to disclosure in Interview 2) were considered more forthcoming. Finally, we scored children's attempts to minimize the experimenter's wrongdoing (e.g., "It was by accident," "She didn't break the whole thing") (0 = did not minimize, 1 = minimized).

For all variables, the two authors scored 20% of the transcripts ($n = 16$) independently (all $kappas \geq .80$) while blind to children's age and caregiver supportiveness condition.

Results

Preliminary analyses

Preliminary analyses confirmed that the seven children excluded for not disclosing the broken puppet in Interview 1 (two 6-year-olds, one 7-year-old, one 8-year-old, and three 9-year-olds) did not differ from the analytic sample in terms of demographics (i.e., age, gender, ethnicity, and family income) or assigned supportiveness condition (four in the unsupportive condition and three in the supportive condition). Second, recantation was unrelated to demographic variables, scores on all parent and child self-report measures, and whether the self-report measures were administered before or after the caregiver supportiveness manipulation. Third, children's verbal ability was equivalent across supportiveness conditions and unrelated to recantation.

Table 1
Prompts eliciting children's initial disclosure of the broken puppet in Interview 1.

Portion of Interview 1	Number of children (<i>n</i> = 73)
Free recall	15 total
Focused questions	28 total
Did anyone become upset in the room?	2
Did you break one of the puppets?	10
Did the lady break one of the puppets?	16
Suggestive questions	23 total
Did you put one of the puppets on?	1
Did anything bad happen in the room?	3
When the lady broke the puppet, was she happy or mad?	16
Which one of the puppets did the lady break?	3
Confrontation	7 total

Children's initial disclosure of adult wrongdoing in Interview 1

Children first disclosed the broken puppet in response to free recall (20.5%), focused questions (38.4%), suggestive questions (31.5%), or after being confronted with it (9.6%) (see Table 1). Only 18 children (24.7%) mentioned the puppets in free recall, and most who mentioned them (83.3%, *n* = 15) disclosed the broken puppet in free recall. There were no age differences concerning the timing of children's initial disclosures.

Children's recantation of adult wrongdoing in Interview 2

Overall, 23.3% of the 73 children (*n* = 17) recanted their prior disclosure about the broken puppet at least once during Interview 2. As hypothesized, caregiver supportiveness influenced whether children recanted, with none of the children in the supportive condition recanting versus 46% (*n* = 17) of the children in the unsupportive condition, $\chi^2(1, N = 73) = 21.56, p < .001, \phi = .54$. Because none of the children in the supportive condition recanted, we were unable to conduct planned logistic regression analyses predicting recantation. However, chi-square analyses revealed no age differences, with 21% (*n* = 8) of 6- and 7-year-olds and 26% (*n* = 9) of 8- and 9-year-olds recanting.

Of the 17 children who recanted, most (82%, *n* = 14) first did so in the focused questions, but one child first recanted in free recall and two children first did so during the suggestive questions. Approximately one quarter (23.5%, *n* = 4) of the recanters subsequently reaffirmed that the puppet broke during Interview 2 (all 6- and 7-year-olds), meaning that 76.5% (*n* = 13) of the recanters maintained their recantation throughout Interview 2. Of the children who maintained their recantation throughout Interview 2, most (69.2%, *n* = 9) were in the older age group (8- and 9-year-olds), $\chi^2(1, N = 17) = 5.89$, Fisher's exact = .029, $\phi = -.59$.

Exploratory analyses

Forthcomingness

We were interested in not only whether children recanted their prior disclosure in Interview 2 but also whether they became more or less forthcoming about the broken puppet and their own contact with the puppets and whether these varied by caregiver supportiveness and children's age. First, we examined children's forthcomingness about the experimenter's wrongdoing by testing whether disclosures in free recall increased from Interview 1 to Interview 2. Although only 20.5% (*n* = 15) of the children disclosed the broken puppet in free recall in Interview 1, 49.3% (*n* = 36) did so in Interview 2. A significant effect of caregiver supportiveness emerged such that 77.8% (*n* = 21) of the children who failed to disclose in free recall in Interview 1 but did so in Interview 2 were in the supportive condition, whereas all six of the children who disclosed in free recall in Interview 1 but failed to do so in Interview 2 were in the unsupportive condition, $\chi^2(2, N = 73) = 16.82$, Fisher's exact $< .001, \phi = .48$. Second, we examined whether children's responses to the focused question "Did the lady break one of the

puppets?” changed. Nearly half of the children (46.6%, $n = 34$) changed their responses to this question from Interview 1 to Interview 2. A significant effect of caregiver supportiveness emerged, $\chi^2(2, N = 73) = 21.41$, Fisher’s exact $< .001$, $\phi = .54$. All 11 children who became less forthcoming in Interview 2 (e.g., shifting from disclosing in Interview 1 to saying “I don’t remember” in Interview 2) were in the unsupportive condition, 82.6% ($n = 19$) of the 23 children who became more forthcoming in Interview 2 (e.g., shifting from saying “I don’t remember” in Interview 1 to disclosing in Interview 2) were in the supportive condition, and 56% ($n = 22$) and 44% ($n = 17$) of the children who remained consistent across interviews were in the unsupportive and supportive conditions, respectively.

Regarding their own wrongdoing, children’s responses to the focused question “Did you touch the puppets?” were analyzed. Nearly half of the children (46.6%, $n = 34$) changed their responses to this question from Interview 1 to Interview 2. All six children who became less forthcoming (e.g., admitted to touching the puppets in Interview 1 but denied touching the puppets in Interview 2) were in the unsupportive condition, and 61% ($n = 17$) of the children who became more forthcoming (e.g., denied touching the puppets in Interview 1 but admitted to touching the puppets in Interview 2) were in the supportive condition, $\chi^2(2, N = 73) = 7.30$, Fisher’s exact = .023, $\phi = .32$. Children were just as likely to keep their admissions about touching the puppet consistent from Interview 1 to Interview 2 when in the unsupportive condition (51.3%, $n = 20$) or supportive condition (48.7%, $n = 19$). Overall, no significant age differences emerged regarding children’s forthcomingness.

Minimization of RA wrongdoing

In Interview 1, 30.1% ($n = 22$) of children minimized the experimenter’s wrongdoing, and 32.9% ($n = 24$) did so in Interview 2. Chi-square analyses revealed a significant effect of children’s age on whether they minimized the experimenter’s wrongdoing in Interview 2 (but not Interview 1), $\chi^2(1, N = 73) = 5.05$, $p = .025$, $\phi = -.26$, with 44.7% ($n = 17$) of 6- and 7-year-olds and 20% ($n = 7$) of 8- and 9-year-olds minimizing the experimenter’s wrongdoing in Interview 2. However, no significant effect of caregiver supportiveness emerged.

Discussion

The current study was the first to address the vigorous debate (see Bruck & Ceci, 2009; London et al., 2005, 2008; Lyon, 2007; Pipe, Lamb, Orbach, & Cederborg, 2007) concerning children’s recantation of adult wrongdoing experimentally. Caregiver reactions to disclosure exerted a powerful effect on children’s event reports, with many children denying their previous allegations following unsupportive reactions from mothers. Theoretically, the current study contributes to our basic understanding of children’s disclosure of negative events and the role of parental reactions. Practically, results are relevant to the broad array of individuals who receive and evaluate the veracity of children’s maltreatment allegations (e.g., legal, social service, and law enforcement professionals; medical and mental health professionals; jurors).

Overall, 23.3% of the children recanted. Most children maintained the recantation throughout the second interview even when responding to multiple highly suggestive questions that supposed that the puppet broke (e.g., “Which one of the puppets did the lady break?”). As hypothesized, caregiver unsupportiveness predicted recantation, with 46% of the children recanting their prior disclosure when mothers merely suggested that they should. In contrast, no children in the supportive condition recanted, implying that children are unlikely to make spontaneous recantations following supportive caregiver reactions—at least when it comes to minor acts of wrongdoing committed by adults. Consistent with the filial dependency model, unsupportive reactions to disclosure from caregivers affected whether children maintained their reports of others’ transgressions. It remains unknown whether unsupportive reactions from other family members or adults influence children’s recantations, an important question for future research.

Our recantation rate is noteworthy given our conservative definition of recantation; merely claiming a lack of knowledge or memory for the incident was insufficient. Others may hold even broader definitions of recantation to include children who deny wrongdoing in an early interview but allege wrongdoing in a subsequent interview, thereby effectively recanting their claims that nothing

happened. Furthermore, only three children mentioned that their mothers had discussed the puppet incident with them. Children may be similarly reluctant to reveal family pressures or parental coaching in maltreatment cases, a critical question for future research.

Surprisingly, no significant age differences emerged in children's tendency to recant, which may have been due to our relatively restricted age range (6- to 9-year-olds). However, older children were more likely to maintain their recantations throughout the entirety of the second interview, suggesting that, with age, children may make more convincing or permanent recantations. This age range was chosen in light of developmental changes in children's attitudes about disclosure (Lyon et al., 2010; Malloy et al., 2014) and age findings in previous recantation research (Malloy et al., 2007). In Malloy and colleagues' (2007) field study, 8- and 9-year-olds may have been more aware of or affected by subtle consequences of disclosure (e.g., being blamed for the abuse) or more likely to interpret them as pressures to recant. Our supportiveness manipulation was direct, and it was likely not difficult for even the 6- and 7-year-olds to comprehend that mothers expected them to subsequently deny the wrongdoing, potentially leading them to recant at rates similar to the older children. Future research should investigate a variety of parental reactions, including more subtle unsupportive responses (e.g., expressing skepticism about children's allegations) across a wider age range of children and in comparison with a neutral control group.

Beyond complete recantations, children altered their forthcomingness as a result of caregiver supportiveness. Although previous experimental studies have shown that children's forthcomingness about others' transgressions can be altered via interviewer behavior (e.g., a promise to tell the truth or putative confession; Lyon et al., 2008, 2014), the current study demonstrates the influence of reactions from those outside the interview context on children's willingness to disclose. Not only did unsupportive reactions reduce children's forthcomingness, but also children whose mothers reacted supportively to disclosure became *more* forthcoming—disclosing their own and the experimenter's wrongdoing more often and more readily (i.e., in free recall) in Interview 2. These findings are notable because although empirically based methods for interviewing cooperative children are well established, similar consensus has not been reached in determining effective nonsuggestive methods for eliciting and maintaining truthful disclosures from reluctant children, especially using open-ended prompts. Having mothers remind children to “keep telling the truth” enhanced children's forthcomingness, a simple intervention worthy of additional research.

Consistent with previous research (Lyon et al., 2008; Pipe & Wilson, 1994), the current study provides further evidence that children are reluctant to reveal others' wrongdoing and that disclosures increase when more direct questions are asked. In free recall, only one fifth of the children initially disclosed the experimenter's wrongdoing and most failed to mention the puppets entirely, perhaps strategically. More than 40% of the children failed to disclose until queried with suggestive questions that explicitly acknowledged the broken puppet or were confronted with physical evidence of the transgression. In addition, approximately one third of the children minimized the experimenter's wrongdoing, partially protecting the adult with whom they had interacted briefly. Due to the nature of our scripted language (i.e., “Oh no! I broke it!”), children likely attributed the experimenter's wrongdoing to an accident, which may have influenced their desire to minimize the experimenter's actions. However, it is noteworthy that children often elaborated on simple yes/no questions (e.g., “Did the lady break one of the puppets?”) to minimize the experimenter's wrongdoing. Future research should examine whether minimization occurs with more clearly intentional wrongdoings.

Limitations and future directions

A key limitation is that a broken toy differs considerably from child abuse. However, several aspects of this scenario were designed to ethically increase ecological validity to situations about which children might testify. First, the “wrongfulness” of the experimenter's actions was made clear via multiple reminders that the puppets were off limits, the experimenter's concern about getting into trouble, and the experimenter's request for secrecy. Second, the experimenter allowed children to handle the other two puppets, encouraging them to engage partially in the wrongdoing. Children often experience self-blame for abuse because they feel complicit in the abusive acts and expect consequences to befall themselves for disclosing (Malloy et al., 2011; Ney, Moore, McPhee, & Trought, 1986; Quas,

Goodman, & Jones, 2003). Although our transgression was necessarily less serious than maltreatment, our supportiveness manipulation involved only minimal one-time pressure. In maltreatment cases, serious threats or consequences may occur, pressures to recant may build over time, and other adults may exert such pressures. We tested children immediately to avoid nondisclosure or recantation being attributed to forgetting and focused on maternal supportiveness. Future studies should evaluate the impact of delay and reactions to disclosure from other adults.

It is important to note that all children included in our final sample disclosed the adult's wrongdoing during the first interview. This may limit the generalizability of our findings to maltreatment cases that come before authorities. Although field work has examined how caregiver supportiveness influences the likelihood of initial disclosure (Lawson & Chaffin, 1992), experimental studies would be useful. Furthermore, we focused on whether children recanted true disclosures, some of which were not provided until children were asked highly suggestive questions. It is also important to determine how often and under what conditions children will recant false allegations of adult wrongdoing after disclosure and whether the circumstances of the initial disclosure influence recantation.

Now that both field work and experimental work have established that a substantial proportion of children recant their prior true disclosures, it is imperative to test strategies designed to prevent recantation and increase caregiver supportiveness (e.g., Jinich & Litrownik, 1999). For example, follow-up studies could examine whether recantation is reduced by keeping interviewer identity consistent.

Conclusions

The findings shed light on an often neglected aspect of children's testimony—the sociomotivational influences on their reports and factors that many children experience *outside* the formal interview context such as unsupportive reactions from family members. Furthermore, the current study extends decades of previous research demonstrating that children may succumb to adult pressures to make false claims (see Bruck et al., 2006), with the current focus on false denials of true events instead of the more often investigated false allegations. With knowledge regarding recantation and its predictors, practitioners will be better able to identify children most at risk and potentially target their needs during maltreatment investigations that involve more than 3 million children in the United States annually (U.S. Department of Health and Human Services, 2015). The results will ultimately help to improve the response to child maltreatment while contributing to our basic understanding of secrecy and disclosure among children.

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