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43. The effects of the putative confession and parent suggestion on children's disclosure of a minor transgression. *Legal and Criminological Psychology*

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The effects of the putative confession and parent suggestion on children's disclosure of a minor transgression

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Purpose. This study examined the effects of the putative confession (telling the child that an adult 'told me everything that happened and he wants you to tell the truth') on children's disclosure of a minor transgression after having been questioned by their parents in a suggestive or non-suggestive manner.

Methods. Children ($N = 188$; 4–7-year-olds) played with a confederate, and while doing so, for half of the children, toys broke. Parents then questioned their children about what occurred, and half of the parents were given additional scripted suggestive questions. Finally, children completed a mock forensic investigative interview.

Results. Children given the putative confession were 1.6 times more likely in free recall to disclose truthfully that toys had broken. Among children who failed to disclose during free recall, those who received the putative confession were 1.9 times more likely when asked yes/no questions to disclose true breakage. The putative confession did not decrease accuracy, and children who received the putative confession were 2.6 times less likely to report false toy play. Parent suggestion did not adversely affect the efficacy of the putative confession.

Conclusions. The current study demonstrates that children are often quite reticent to disclose transgressions and that the putative confession is a promising avenue for increasing children's comfort with disclosing and minimizing their tendency to report false details, even in the face of suggestive questioning by parents.

When children are interviewed in forensic settings, the goal is to elicit accurate disclosures while minimizing false reports. This can be difficult because of children's reluctance to disclose. Children often deny, delay reporting, and recant abuse (London, Bruck, Wright, & Ceci, 2008; Lyon & Ahern, 2010; Malloy, Lyon, & Quas, 2007; Paine & Hansen, 2002). Children also regularly deny transgressions implicating themselves and others in laboratory studies (Evans & Lee, 2013; Lyon *et al.*, 2014; Talwar, Lee, Bala, & Lindsay, 2004). At the same time, children are suggestible, and concerns exist over how others, especially parents, may influence children's reports (Bruck, Ceci, & Hembrooke, 2002; Stolzenberg & Lyon, 2014).

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The challenge is to identify methods of interviewing children that overcome reluctance without increasing false reports. Closed-ended questions may overcome reluctance (Bottoms, Goodman, Schwartz-Kenney, & Thomas, 2002; Pipe & Wilson, 1994; Quas *et al.*, 1999), but they also reduce accuracy and increase the risk of acquiescence to false suggestions (Quas & Schaaf, 2002; for a review, see Lamb, Hershkowitz, Orbach, & Esplin, 2008). Reassurance that disclosure will not have negative effects can increase disclosure, but it derives much of its efficacy from explicitly mentioning the suspected transgression, and this can lead to false reports (Lyon & Dorado, 2008). Perhaps the most effective techniques for eliciting transgression disclosures include eliciting a promise to tell the truth (Lyon & Dorado, 2008; Lyon, Malloy, Quas, & Talwar, 2008; Talwar, Lee, Bala, & Lindsay, 2002; Talwar *et al.*, 2004) and highlighting the virtues of honesty (Huffman, Warren, & Larson, 1999; London & Nunez, 2002). However, such discussions do not address motivational influences that lead many children not to disclose, such as a commitment to the transgressing adult to keep a secret (Gordon, Lyon, & Lee, 2014).

The putative confession is a novel method for increasing accurate disclosures, combining elements of directness, reassurance, and appeals to honesty. The interviewer tells the child that an adult disclosed everything and wants the child to 'tell the truth' (Lyon *et al.*, 2014). Because the interviewer does not specify what 'everything' or 'the truth' entails, the instruction conveys different meanings to children who have and have not experienced a transgression. And, in doing so, the instruction thus avoids the suggestive effects of providing children with specific information regarding other witnesses' reports (Garven, Wood, Malpass, & Shaw, 1998).

The theoretical rationale behind the putative confession relies on what is known about children's disclosure process (Berliner & Conte, 1995; Bottoms, Rudnicki, & Epstein, 2007). A child's non-disclosure is often due to fear of consequences to the self or to others close to the child (Sas & Cunningham, 1995). If the child believes the adult has disclosed, as would be the case when the putative confession is utilized, then fear that the disclosure will have negative consequences should be alleviated. Because the instruction does not specify that a suspect has admitted to wrongdoing, it could be ethically utilized if suspects were asked, 'have you been forthcoming in what you've told us', and 'do you want [child's name] to tell the truth?'

In an initial test of the putative confession (Lyon *et al.*, 2014), 4- to 9-year-old maltreated and non-maltreated children played with a stranger, during which two toys appeared to break. The stranger discouraged disclosure, warning that they 'might get in trouble'. An interviewer then questioned the children about the interaction. The putative confession increased disclosure of the transgression by 20% during free recall and cued invitations (e.g., 'You said "X broke." Tell me everything that happened when X broke'), and did not increase false reports. This effect was observed regardless of age or maltreatment status.

Although the putative confession does not appear to be inherently suggestive, it may have negative effects on accuracy if children have been subjected to prior suggestions. By the time children are formally questioned, most have engaged in prior conversations about the abuse with others (Malloy *et al.*, 2007). Parents are often the first disclosure recipients in cases of abuse, especially for young children (Bradley & Wood, 1996; Malloy, Brubacher, & Lamb, 2013; Sauzier, 1989). Parents who have been misled about their children's experiences question their children in a biased manner (Goodman, Sharma, Thomas, & Considine, 1995; Principe, DiPuppo, & Gammel, 2013), and young children view parents as trusted sources of knowledge (Corriveau & Harris, 2009; Corriveau *et al.*, 2009). Both of these could lead to parent-induced errors in children.

In the present study, we tested the effects of the putative confession on children's disclosures of an adult transgression, directly and in conjunction with parent suggestion. We did so in an ecologically relevant way. Our design utilized a confederate, who engaged the child in play, whereby, for some of the children, toys broke. This mimics an abuse situation in which a child might not recognize the activity with the adult as wrong; however, the child is seduced to engage in behaviour that results in a transgression. At some point following the transgression, the child, as in the real world, may feel implicated. Our primary prediction, consistent with prior work, was that the putative confession would be effective at increasing true disclosures. We also hypothesized that suggestive parent questioning would increase false disclosures, as found with exposure to misinformation. We did not anticipate that the putative confession would have suggestive effects when combined with parent suggestion, but rather suspected that it might reduce suggestion insofar as it would encourage children to tell the truth.

Method

Participants

Participants ($N = 188$, 4- to 7-year-olds; $M = 5.50$ years old, $SD = 1.12$ years; 98 female) were recruited from a suburban University community. Half of the children were younger ($n = 90$, or 48%, 4- to 5-year-olds or preschoolers) and half were older ($n = 98$, or 52%, 6- to 7-year-olds or school age children). Ethnicity varied: Fifty-three percent were Caucasian, 25% were multiethnic, 12% were Asian, and 10% were Hispanic/Latino. A majority of parents reported earning about \$100,000 a year and reported having a bachelor's degree or higher. The parent sample was 90% mothers and 10% fathers. Which parent completed the study was unrelated to demographic characteristics and disclosure patterns and parent gender is not considered further. Children were randomly assigned to conditions, such that age and gender were approximately equally balanced; cell sizes in each condition were equivalent.

Materials and procedures

A flow chart is presented in Figure 1 detailing the methodological design.

All children participated in a single laboratory session. Children completed several preliminary measures with a female interviewer, none of which is relevant here. At the end of the measures, she said that she needed to speak with the parent in the waiting room and that she would ask a friend (the confederate) to keep the child company. Shortly after she left, the confederate entered, introduced himself and noticed boxes of toys on a bookshelf. He engaged the child in play, demonstrating actions and labelling them as they played (e.g., 'Look it's a skateboard; you can make it do tricks'). The child and confederate did not play with two toys (hereafter referred to as non-target toys). The confederate did not mention these non-target toys; however, they were located and were visible on the shelves alongside the six played toys.

Play manipulation

Children were randomly assigned to one of two play conditions. In the break condition, two toys broke in the child's hands (the front wheels fell off of a toy car, and a piece fell off of the cube). For children in the no-break condition, the same two toys were played with

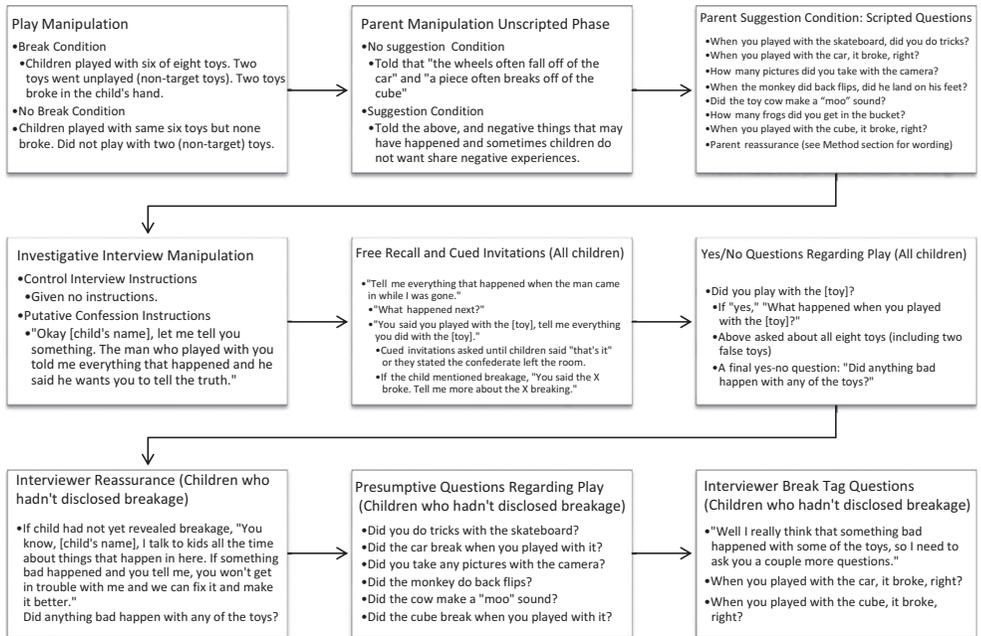


Figure 1. Flow chart depicting the methodological design.

but went unbroken. When toys broke, the confederate followed a series of scripted responses, including labelling the child's actions leading to the breakage (e.g., 'Oh, no! You pulled the car backwards and it broke'), expressing concern about breakage (e.g., 'This is not good'), attempting to conceal breakage (e.g., 'We'd better put the car back so nobody knows it's broken'), and asking the child not to disclose because 'we might get in trouble'. In the no-break condition, the confederate did not make any statements about concealing play. After toy play concluded, regardless of condition, the confederate thanked the child and said that he would retrieve the child's parent.

Parent suggestion

Parents were randomly assigned to one of the two conversation conditions: Suggestion or no-suggestion. While the toy play session was taking place, the lead researcher gave all parents instructions for the parent-child conversation. Parents were asked to question their child about what happened during the play session. They were given an information sheet that listed each toy and the actions each one performed and were told:

Just a few minutes ago, [child's name] participated in a play session with one of our research assistants in which they played with some toys. In a few minutes, we are going to give YOU the opportunity to talk to your child about what happened during the play session! Here is a list of all the toys, what each toy does, and some things that may have happened with the toys. We are giving information in advance about what happened to help you structure your questions, but we really want you to get [child's name] to tell you what happened with all of these toys. Thus, please find out about everything that you can. Specifically, we would like you to find out what happened with each of the toys during the play session.

For the two toys that might have broken, the information sheet for all parents stated that ‘[t]he wheels often fall off of the car’ and ‘[a] piece often breaks off of the cube’.

In the suggestion condition, parents were additionally told:

You will also notice that there are some negative things that may have happened with some of the toys. This is intentional because we are interested in how children talk about both positive and negative experiences. Sometimes children don’t want to talk about negative things that happened, but it’s really important that you find out everything that you can about what happened, including negative things.

All parents were given a few minutes to look over the instruction sheet. They were then escorted to the testing room where their child was waiting, and they were told that they had 5 min to question their child. After 5 min, the research assistant re-entered the room to end the unscripted conversation phase. At this time, the parent–child interaction for those in the no-suggestion condition ended.

For parents in the suggestion condition, at this time, a set of scripted suggestive parent questions was given to them. The research assistant requested that parents ask all of the questions, even those that appeared to be repetitive. The seven questions presumed that play occurred with each toy, and included two tag questions regarding breakage of the car and cube (Figure 1). If the child did not disclose breakage in response to these questions, parents were instructed to reassure the child by stating:

It’s really important for you to tell me everything that happened with the toys. I heard that these toys break all the time, so if something bad like that happened and you tell me, it’s okay and you’re not going to get in trouble at all. So tell me about any of the toys that broke.

At the conclusion of the scripted suggestive parent questions, and potential parent reassurance for children who had yet to disclose, the parent–child interaction for children in the parent suggestion condition was complete. Figure 1 presents an overview with additional detail of the methodological design.

Putative confession

After the parent left the room, the interviewer (blind to the child’s play condition) returned. Half of children received the putative confession instruction, as already described, and as described in Figure 1 (children in the control condition did not receive any pre-interview instructions). Then all children were administered the same interview.

Free recall and cued invitations. The interviewer began with free recall and cued invitation questions (e.g., ‘Tell me everything that happened when the man came in while I was gone;’ ‘What happened next?’ ‘You said you played with the [toy], tell me everything you did with the [toy]’), asked until the child’s report was exhausted.

Yes/no questions regarding play. The interviewer then asked a series of yes/no questions about whether the child played with each toy and, at the end, whether ‘anything bad’ had happened with ‘any of the toys’. If after these questions, or any point hereafter, the child disclosed breakage, the interview ended.

Interviewer reassurance. The interviewer reassured the child. She then asked again if ‘anything bad happened with the toys’.

Presumptive questions regarding play. The interviewer then asked a series of six yes/no questions that presumed the child had played with each toy, and asked directly about breakage (see Figure 1).

Break tag questions. Finally, for children who had still not disclosed toy breakage, the interviewer provided a final prompt: ‘Well, I really think that something bad happened with the toys, so I need to ask a couple more questions’ and asked two tag questions about breakage.

Debriefing. All children and parents were debriefed, including reassurance that sometimes the toys break and it is okay. We reminded children in the break condition that although they were asked to keep a secret in our study, it is important to always tell the truth. Major errors in children’s reports were corrected (e.g., children who falsely assented to questions about toys breaking were reminded that the toys did not break), children were reassured that they did well, and parents were informed about the developmental appropriateness of non-disclosures.

Coding

Interviews were transcribed and coded by trained research assistants who achieved reliability on all variables ($\kappa > .80$, percent agreement $> .90$) on 20% of the sample. Parent–child conversations were coded for the following: The number of questions asked, whether questions were open-ended/closed-ended/follow-up or facilitating questions, whether the parent explicitly mentioned breakage, and whether the child disclosed breakage or not and if so, when. For the investigative interview, children’s free recall and each round of questions were coded separately. Responses were coded for whether children disclosed breakage and whether they falsely reported play with the non-target toys. For disclosures of breakage, responses were coded for whether the child attributed responsibility to himself or herself, the confederate, or no one (e.g., they claimed the toy was already broken).

Results

No differences in the dependent variables were observed for child gender, ethnicity, or age. These factors are not considered further.

Parent conversation and children’s true and false disclosures

On average, parents asked 64 ($SD = 16.60$) questions in the 5-min unscripted conversations. Parents most frequently asked follow-up questions (‘We played with toys’ ‘What happened when you played with the toys?’) or utilized facilitators as questions (e.g., ‘We played with toys’ ‘Uh-huh’) (48%), and this did not relate to whether parents were in the

suggestion or no-suggestion condition. When parents did not ask follow-up questions, they asked closed-ended questions 27% of the time and open-ended questions (invitations, directives) 25% of the time; neither proportion was related to whether parents were in the suggestion condition. However, when parents' questioning strategies were further examined to assess content, substantial differences emerged between conditions: Parents in the suggestion condition (71%) were nearly two times more likely than parents in the no-suggestion condition (29%) to ask questions specifically referencing breakage or negative occurrences before any scripted questions were asked, $\chi^2(1, N = 178) = 22.32$, $p < .001$. Ten children were eliminated from this single analysis, as the video-recording software did not allow for complete transcription. However, children who experienced the video-recording error did not differ from the entire sample on age, gender, play manipulation, conversation manipulation, or interview manipulation. In addition, these children are included in the analyses below about disclosure during parent interviews, as a research assistant documented children's disclosures separate from the video.

True reports

We examined disclosure among children in the break condition ($n = 100$), that is children for whom the toys actually broke. In the unscripted portion of the parent-child conversation, 28% (14/50 children) disclosed breakage in the suggestion condition, and 38% (19/50) did so in the no-suggestion condition, $\chi^2(1, N = 100) = 1.13$, $p = .29$. In the scripted suggestive portion of the conversation administered by parents in the suggestion condition only, 83% of children who had not yet revealed breakage did so (30/36).

Across the entire conversation (including the scripted suggestive portion for children in the *suggestion* condition), children in the suggestion condition (88%; 44/50) were significantly more likely than children in the no-suggestion condition (38%; 19/50) to disclose breakage to parents, $\chi^2(1, N = 100) = 47.65$, $p < .001$, though as is evident, this was largely driven by the scripted highly suggestive questions and reassurances.

False reports

In the no-break condition ($n = 88$), no child falsely alleged breakage during the unscripted portion of the parent-child conversation, whether the parent was in the suggestion or no-suggestion condition. One of 43 children in the suggestion condition falsely assented to breakage during the scripted portion (2%). This claim concerned a toy that had not broken for children in the break condition, and the child did not repeat the claim in the investigative interview.

Investigative interview and children's true and false reports

Descriptively, of the 100 children in the break condition, 97% ultimately disclosed breakage during the investigative interview. Forty-six percent first disclosed in free recall, 23% during the yes/no questions regarding play, 23% to the reassurance prompt, 4% during the presumptive questions regarding play, and 1% to the break tag questions at the very end. Among children in the no-break condition ($n = 88$), 5% ($n = 4$) falsely disclosed toy breakage at some point during the investigative interview. None of these children did so, though, during free recall. One child falsely disclosed during the yes/no questions (in response to the 'did anything bad happen with any of the toys' question), one did so during the presumptive questions regarding play, and two did so to the break tag

questions at the end. Of these children, one was in the parent suggestion condition, and the other three were in the no-suggestion condition.

Disclosures during free recall and cued invitations

A hierarchical binary logistic regression model tested the effects of parent suggestion, the putative confession, and prior disclosure to parents (all dichotomous) on children's breakage disclosure during free recall. Because false reports of breakage were so rare, analyses only included children in the break condition ($n = 100$). In the first step, a main effects model tested the experimental manipulations. The second step tested two-way interactions and the third step, a three-way interaction. There was no three-way interaction, and as such, the model with only the first two steps is examined (Table 1).

The main effect of the putative confession was significant. As predicted, children in the putative confession condition were significantly more likely to disclose in free recall (57%) than children in the control group (35%). The parent suggestion by prior disclosures to parent was also significant: For participants in the no-suggestion condition, 74% of children who disclosed to their parent also disclosed in free recall during the interview, compared to only 19% of children who did not disclose to their parent, $\chi^2(1, N = 100) = 14.49, p < .001$. However, for participants in the suggestion condition, disclosure to parents was not predictive of free recall disclosure: 52% of children who disclosed to their parent and 60% who did not went on to disclose in free recall, $\chi^2(1, N = 100) = 0.01, p = .92$. In other words, suggestive questioning by parents led a large percentage of children to appear inconsistent in their disclosures.

Children who disclosed breakage in free recall were asked who broke the toys. Although 50% of children took responsibility, 24% responded 'no one', or 'it broke by itself' (24% for at least one toy). Some children (17% for at least one toy) said that they did not know who broke the toys or that the toys were already broken. One child (2%) blamed the confederate, and a few children provided non-responsive answers (e.g., 'I like toys,' 4%).

Table 1. Hierarchical binary logistic regression predicting children's true disclosures to investigative interviewers during free recall and cued invitations

Predictor	df	Wald at entry	Final model		
			B	SE (B)	Odds ratio
Step 1					
Parent suggestion	1	0.96	1.87	1.31	6.48
Disclosure to parent	1	12.13***	-0.17	1.04	0.85
Putative confession	1	8.10**	-1.13	0.61	0.32
Step 2					
Parent suggestion*disclosure to parent	1	4.70*	-3.18	1.47	0.04
Parent suggestion*putative confession	1	0.41	-0.89	1.39	0.41
Disclosure to parent*putative confession	1	1.49	-0.42	1.49	0.66
Constant	1		0.66	0.45	1.94

Note. Step 1: $\chi^2(3, n = 100) = 20.89, p < .001$; Step 2: $\chi^2(3, n = 100) = 6.09, p = .11$; and overall model: $\chi^2(6, n = 100) = 26.98, p < .001$.

*** $p < .001$; ** $p < .01$; * $p < .05$.

Disclosures to yes/no questions regarding play

The same hierarchical binary logistic regression was conducted as above, but the dependent measure was whether children disclosed breakage for the first time during the yes/no questions regarding play. Only the predicted putative confession effect was significant, Wald (1, $N = 100$) = 4.02, $p = .045$: Children in the putative confession condition were more likely to disclose breakage for the first time (15%) than children in the control group (8%).

An additional and identical hierarchical binary logistic regression was conducted on whether children disclosed breakage for the first time following the interviewer reassurance prompt (which came immediately after the yes/no questions). Children were informed that no one would get in trouble if anything bad happened and were asked, 'Did anything bad happen with the toys?' No significant predictors emerged.

Disclosure to investigative interview after non-disclosure to parent

A final set of descriptive analyses focused on disclosures in the investigative interview specifically among children who concealed wrongdoing from their parent. Of interest was whether they would tell the interviewer. As already noted, across the five waves of interview questions, virtually all (97%) children in the break condition disclosed breakage, whereas 4% of the children in the no-break condition did so. This included a number of children who failed to report breakage when questioned by their parents (break $n = 37$; no-break $n = 87$). Figure 2 denotes the percentage of the children who had not disclosed breakage to their parents and subsequent disclosure rates at each wave of the investigative interview. At each successive wave, with the exception of the final break tag questions (at which point only three children in the break condition had not disclosed), a substantial proportion of children in the break condition disclosed breakage, whereas small percentages of children in the no-break condition made false reports.

False reports of toy play

The other set of final analyses concerned how often children reported false play with the non-target toys (i.e., the toys that no one touched but were visible during the play event). Twenty-two children (13%) falsely reported non-target toy play at some point during the investigative interview. One significant predictor emerged, $\chi^2(1, N = 176) = 4.69$, $p = .03$; children who received the putative confession were significantly *less* likely to falsely report non-target toy play (7%) than children who did not receive the putative confession (18%).

Discussion

The overarching goals of the present study were to assess the utility of the putative confession as a means of overcoming reluctance to disclose a true or false transgression, both directly and following exposure to suggestive information from a parent. Two important findings emerged.

The first set of significant findings is the demonstrated effectiveness of the putative confession. Consistent with prior work (Lyon *et al.*, 2014), its benefits were robust, both in terms of increasing true disclosures and reducing false reporting. Children given the putative confession were 1.6 times more likely to disclose truthfully that toys had broken

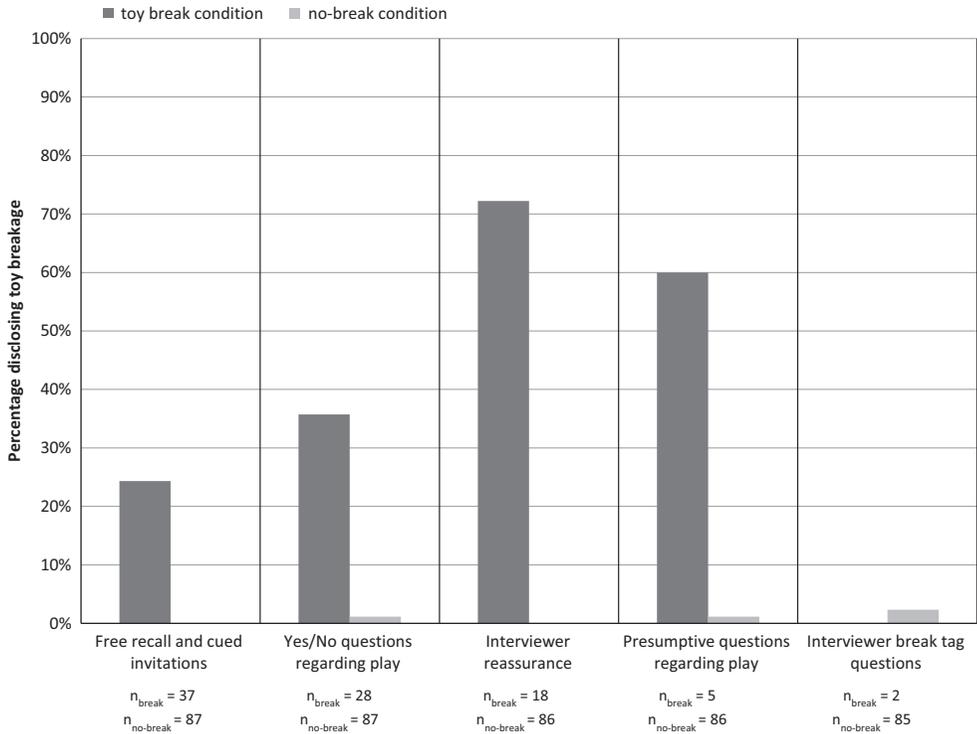


Figure 2. Percentage of children who disclose breakage at each stage of the interview (among those who had not previously disclosed).

in free recall than children who did not receive the putative confession. And, among children who had yet to disclose when asked yes/no questions, those who received the putative confession were 1.9 times more likely to disclose in response to these questions than those who did not. The putative confession did not decrease accuracy, and in fact, children who received the putative confession were 2.6 times less likely to report false toy play, that is, play with the non-target toys. Finally, the efficacy of the putative confession was unaffected by prior exposure to suggestive questioning by a parent.

The second set of significant – and surprising – findings concerns parents' difficulty in eliciting reports of breakage when left to their own devices, and the ineffectiveness of parents' suggestions, even with highly scripted questions, in inducing false reports of breakage. In other words, even after exposure to parent suggestions, virtually no children made false reports.

With regard to parent suggestions and children's true disclosures, children exposed to such suggestions were 2.3 times more likely to disclose true breakage. This effect was entirely due to the scripted suggestive parent questions that we provided parents at the end of their conversation. Thus, in contrast to concerns often raised about parents' inclination to be highly suggestive and for children to easily fall prey to parent suggestion, we did not observe these patterns. Furthermore, in contrast to the suggestions' benefits in increasing children's true disclosure of breakage to parents, carry-over effects did not occur. Parent suggestions did not subsequently increase children's disclosures during the interview.

That our parent conversation did not induce false reports, despite parents being suggestive, deserves further mention. Prior work indicates that, when parents are provided with misinformation about their child's experiences, children's later reports are negatively influenced. Principe *et al.* (2013) exposed preschoolers to a magic show that included a failed attempt to pull a rabbit out of a hat. A week later, children were interviewed about what occurred. One day prior, some parents were sent a suggestive letter asking them to question their children about the magic show. The letter suggested that children witnessed the rabbit loose in the school because of the magician's failed attempt to pull a rabbit out of his hat and stressed that parents 'ask your child if she or he remembers whether the magician's rabbit got loose in the school on the day of the show. We are particularly interested in children's memory for this event' (p. 263). In free recall, 20% children reported that the rabbit had gotten loose, and another 40% did so in response to direct (specific and leading) questions, patterns that contributed to the researchers' conclusion that the study 'points to the potential danger in instructing mothers to ask their children about a possible criminal event' (p. 270).

Like Principe *et al.*'s study, our suggested event was a mishap and embedded within a positive interaction between an adult and child. However, parents and children likely view loose rabbits and broken toys in very different ways. Children's acquiescence to false events is higher for positive than negative events (e.g., Ceci, Loftus, Leichtman, & Bruck, 1994; Cleveland, Quas, & Lyon, 2015) and higher for neutral than negative abuse-related events (Rudy & Goodman, 1991). The examples provided by Principe *et al.* (2013, p. 268, 266) regarding both parents' (e.g., 'Did you guys catch it and feed it some carrots?') and children's (e.g., 'the bunny was playing') embellishments suggest that both may have framed the incident as surprising and positive rather than negative. Furthermore, a loose rabbit is consistent with, and provides an explanation for, the magician's failure to pull the rabbit out of his hat, which the children had witnessed. In our study, the confederate never alluded to breakage nor was there a toy that inexplicably malfunctioned. Parents were led to believe that toys had broken and, in the suggestion condition, that this would be a negative event their child might be reluctant to discuss. Children had no reason to accept the suggestion to make sense of their experience. Moreover, to the extent that breakage might imply wrongdoing on the child's part, children in the no-break condition were likely motivated to deny breakage, an interpretation consistent with the high rates of denial among the children for whom the toy actually broke; about half of whom who acknowledged breakage nevertheless failed to accept responsibility for doing so. When assessing how parent suggestiveness may influence children's recall of criminal events, therefore, it is critical to consider the extent to which the alleged event is positive or negative, provides an explanation for something the child witnessed, and involves behaviour that may make the child feel implicated. Such considerations likely affect how easily – and whether – children fall prey to parent suggestion.

Two other issues – timing and pressure – are also important to consider in relation to parents' suggestions. First, regarding delay, in Principe *et al.*'s study (2013), there was a 1-week delay between the event and the interview, and the parent conversation occurred 1 day before the interview. In the present study, there was no delay between the event, the parent's conversation, and investigative interview. Longer delays between a to-be-remembered event and an interview increase suggestibility, as do shorter delays between misinformation and questioning. Hence, children are likely to be maximally influenced when parent suggestions occur shortly before interviews about remote events. And

second, parents in both studies were misled by researcher-provided information, rather than by strong biases or ill will. In other contexts, such as intense custody battles, it seems obvious that pressures will be multiplied.

Although our results suggest promising means of eliciting truthful disclosures, limitations also need to be acknowledged. First, because of our failure to induce false reports in children due to parent suggestion, we were unable to fully assess the effects of the putative confession on children who have made false disclosures to their parents. Second, the broken toy manipulation is an imperfect analogue for allegations of maltreatment. In maltreatment cases, children are typically making accusations against familiar adults, rather than strangers. Motivations both to disclose and to conceal are much greater. To address this, future work might benefit from incorporating parents into laboratory studies as transgressors. Third, the children in this study were predominantly Caucasian and middle class to upper middle class. Maltreated children are diverse ethnically and socioeconomically (US DHHS, 2012) and, at least in vignette studies, react differently to transgressions and inducements to secrecy (Malloy, Quas, Ahern, & Lyon, 2014). However, the positive effects of the putative confession in this study are consistent with research that has examined its utility with maltreated and demographically similar non-maltreated children using a similar paradigm (Lyon *et al.*, 2014). Fourth, in this study, the play session, parent conversation, and investigative interview all occurred in a single session in the laboratory. Maltreatment investigations occur over much longer periods of time and are commonly characterized by multiple abuse episodes and repeated conversations with parents or other individuals. It will be critical in future research to examine the utility of the putative confession and other interviewing techniques, as well as the effects of parent suggestiveness, over time and across repeated conversations and interviews.

In conclusion, the current study demonstrates that children are often quite reticent to disclose transgressions and that the putative confession is a promising avenue for increasing children's comfort with disclosing and minimizing their tendency to report false details, even in the face of suggestive questioning by parents. If tests of this technique across other conditions analogous to actual legal investigations continue to reveal benefits, the putative confession may prove useful in the field.

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