

University of Southern California Law

From the SelectedWorks of Thomas D. Lyon

January 2013

Eliciting maltreated and non-maltreated children's transgression disclosures: Narrative practice rapport building and a putative confession

Contact
Author

Start Your Own
SelectedWorks

Notify Me
of New Work



Available at: <http://works.bepress.com/thomaslyon/88>

Running head: Eliciting Disclosures

Eliciting Maltreated and Non-maltreated Children's Transgression Disclosures:
Narrative Practice Rapport Building and a Putative Confession

Thomas D. Lyon,¹ Lindsay Wandrey,² Elizabeth Ahern,³

Robyn Licht,¹ Megan Sim,³ & Jodi A. Quas²

¹ University of Southern California

² University of California, Irvine

³ University of Cambridge

In press, *Child Development*

Portions of this research were presented at the Society for Research in Child Development, Denver, CO, 2008. Anna Rak, Bruce John, Jenna Tomei, Jonathan Ortega, Brooke Eggleston, Nicole Grant, Crystal Lara, MacKenzie Smith, Carole Staatz, Kellian Summer, Vanessa Starke, and Tyler Vestal assisted in data collection and coding. We are grateful for the support of the Presiding Judge of the Los Angeles County Juvenile Court, the Los Angeles County Department of Children's and Family Services, Los Angeles County Children's Law Center, and the Children's Services Division of Los Angeles County Counsel. Preparation of this article was supported in part by National Institute of Child Health and Human Development Grant HD047290. Correspondence concerning this article should be addressed to Thomas D. Lyon, University of Southern California Law School, 699 Exposition Blvd., Los Angeles, CA 90089-0071. Electronic mail may be sent to tlyon@law.usc.edu.

Abstract

This study tested the effects of narrative practice rapport building (asking open-ended questions about a neutral event) and a putative confession (telling the child an adult “told me everything that happened and he wants you to tell the truth”) on 4- to 9-year-old maltreated and non-maltreated children’s reports of an interaction with a stranger who asked them to keep toy breakage a secret ($N = 264$). Only one-third of children who received no interview manipulations disclosed breakage; in response to a putative confession, one-half disclosed. Narrative practice rapport building did not affect the likelihood of disclosure. Maltreated children and non-maltreated children responded similarly to the manipulations. Neither narrative practice rapport building nor a putative confession increased false reports.

Keywords: lying, verbal deception, referential ambiguity, children

Eliciting Maltreated and Non-maltreated Children's Transgression Disclosures: Narrative Practice Rapport Building and a Putative Confession

In legal contexts, children are routinely questioned about transgressions, most often acts of wrongdoing allegedly perpetrated by an adult. An important issue concerns the extent to which interviewers can safely press children for information without risking a false allegation. The dilemma is that children who have witnessed nothing are susceptible to suggestions of wrongdoing, whereas children who have witnessed wrongdoing may have been coerced into silence (Lamb, Hershkowitz, Orbach, & Esplin, 2008). This study examined the potential to elicit true reports of transgressions from maltreated and non-maltreated children without increasing false allegations.

Children acquire the ability to conceal transgressions at an early age. Field research has suggested that children as young as two years of age lie (Wilson, Smith, & Ross, 2003), and their early lies tend to be denials of their own transgressions (Talwar & Crossman, 2012). In the laboratory, researchers have similarly found that lying about minor transgressions (such as peeking at a toy after being admonished not to) emerges by two years of age, and increases during the preschool years (Evans & Lee, 2013; Talwar, Lee, Bala, & Lindsay, 2002). In addition to lying about their own wrongdoing, young children will readily accede to requests to conceal transgressions in which they are jointly implicated (Lyon, Malloy, Quas, & Talwar, 2008) as well as the transgressions of parents (Talwar, Lee, Bala, & Lindsay, 2004).

Research examining children's tendency to lie about transgressions has focused on the links between lying and executive functioning, theory of mind understanding, and moral development. Among 2- to 3 year olds, children's tendency to lie is primarily related to executive functioning, namely better inhibitory skills in conjunction with larger working memory

capacity (Carlson, Moses, & Hix, 1998; Evans & Lee, 2013). Theory of mind abilities are not a prerequisite for lying among the youngest children, probably because the earliest lies do not require an intent to deceive (Polak & Harris, 1999). Similarly, the youngest children's greater honesty compared to older children is probably not attributable to moral compunction, because 2- to 3-year-olds have difficulty making knowingly false statements even when rewarded for doing so in a non-transgression context (Ahern, Lyon, & Quas, 2011). However, among 3- to 8 year olds, children's tendency to lie is not only related to executive functioning (Talwar & Lee, 2008), but also theory of mind understanding (Polak & Harris, 1999; Talwar & Lee, 2008), and, in some research, children's moral evaluation of lying (Talwar & Lee, 2008; but see Talwar et al., 2002; Talwar, Lee, Bala & Lindsay, 2004). For example, Talwar and Lee (2008) found that children with more flexible views about the morality of lying were more inclined to lie.

Moreover, theory of mind understanding and children's moral evaluations are themselves related; Smetana and colleagues (2012) found that children's flexibility in moral judgment was related to their theory of mind abilities. Finally, some research has found that children's tendency to lie declines by 10 years of age or so, both with respect to the transgressions of strangers (Pipe & Wilson, 1994), and with respect to self-transgressions (Evans & Lee, 2010), possibly because older children have internalized norms against lying (Bussey, 1992, 1999) or because they view laboratory transgressions as less serious than younger children (Pipe & Wilson, 1994).

From a legal perspective, another important factor to consider in assessing whether children will lie about transgressions is the nature of the wrongdoing. In laboratory research, transgressions entail violations of adult admonitions or minor property damage. In the legal context, transgressions often involve physical harm or the violation of physical integrity, such as

in child abuse cases, in which the child is the victim, or in domestic violence cases, in which the child witnesses violence. Nevertheless, research documenting high rates of transgression denial may provide some insight in understanding children's disclosures of violence. Children who have been sexually abused are often reluctant to disclose (Hershkowitz, Lanes, & Lamb, 2007). Victims tend to have positive interactions with perpetrators, initially acquiesce, and often do not recognize that the actions are wrong (Leclerc, Proulx, & Beauregard, 2009). After abuse has occurred, perpetrators often warn children about the negative consequences of disclosure (Smith & Elstein, 1993). Children thus often feel implicated in the abuse, and their motivations for concealment include fears that they will be blamed or that the perpetrator will be harmed (Anderson, Martin, Mullen, Romans, & Herbison, 1993; Hershkowitz et al., 2007). Similarly, child victims of physical abuse often also experience self-blame (Ney, Moore, McPhee, & Trought, 1986), and many exhibit reluctance to disclose their victimization (Hershkowitz & Elul, 1999; Hershkowitz, Horowitz, & Lamb, 2005).

Maltreated children's disclosure patterns may also be affected by their general attitudes about adults; maltreated children are more likely to expect that others, including caretakers, will behave in unsupportive, rejecting, or punitive ways (Shields, Ryan, & Cicchetti, 2001; Shipman & Zeman, 2001; Toth, Cicchetti, Macfie, Rogosch, & Maughan, 2000). When directly asked about disclosing adults' moral transgressions, 4- to 9-year-old maltreated children respond differently than non-maltreated children: Older maltreated children are more likely to endorse disclosure than non-maltreated children, whereas younger maltreated children are less likely to do so (Lyon, Ahern, Malloy, & Quas, 2010). Hence, in understanding children's disclosure of their own and others' transgressions, it is relevant to consider both age and maltreatment status. Examining maltreated children's willingness to disclose adult transgressions is also of interest in

its own right, because any method purporting to increase disclosure should be tested in children most likely to be asked about adult transgressions in the field.

Little research has examined how children's reluctance to disclose transgressions can be overcome. Among preschool and grade-school children, yes/no questions tend to be more effective than open-ended questions in eliciting disclosures (Pipe & Wilson, 1994). However, yes/no questions can also increase false allegations (Thompson, Clarke-Stewart, & Lepore, 1997). Moreover, children coached to make false allegations are more likely to do so in response to yes/no questions than in free recall (Quas, Davis, Goodman, & Myers, 2007). Therefore, yes/no questions may exert their influence not by eliciting greater honesty but by increasing acquiescence.

Rapport Building

A critical challenge for child interviewers is thus how to elicit true disclosures of events that children are reluctant to disclose without risking false allegations. It may be possible to overcome reluctance by establishing a supportive interview context for the child. A number of studies have shown that children's accuracy and resistance to suggestibility increases if the interviewer behaves in a supportive rather than non-supportive manner (Almerigogna, Ost, Bull, & Akehurst, 2007; Carter, Bottoms, & Levine, 1996; Davis & Bottoms, 2002; Goodman, Bottoms, Schwartz-Kenney, & Rudy, 1991; Quas & Lench, 2007), although the effects of such support on children's willingness to disclose transgressions has not been tested.

One means by which the interviewer can behave supportively is through narrative practice rapport building, in which children are asked open-ended questions about a non-abusive event before being questioned about abuse. In practice, forensic interviewers attempt to build rapport primarily via the use of yes/no questions, which tend to elicit brief responses (Warren,

Woodall, Hunt, & Perry, 1996). Field research has found that, when open-ended narrative practice is used, children's initial abuse reports are longer (Sternberg et al., 1997), and open-ended questions during rapport building are associated with greater productivity (Hershkowitz, 2009; Price, Roberts, & Collins, 2013). With narrative practice, a substantial percentage of children disclosing abuse do so in response to open-ended recall questions (Sternberg, Lamb, Orbach, Esplin, & Mitchell, 2001). In the only laboratory study assessing narrative practice rapport building, it increased accuracy but failed to increase productivity (Roberts, Lamb, & Sternberg, 2004). However, the children had no reason to conceal the to-be-remembered event, and Roberts and colleagues (2004) speculated that "[a]n open-ended rapport-building style may be especially beneficial when questioning children about embarrassing events or events that they are uncomfortable disclosing" (p. 199). Narrative practice may increase children's willingness to disclose negative information by signaling the interviewer's interest and sincerity, transferring control of the interview to the child, and giving the child a sense of importance (Roberts, Brubacher, Powell, & Price, 2011).

Interview Instructions, Including a Putative Confession

Another possible method of increasing children's disclosures is via interview instructions that encourage children to be forthcoming but do not directly suggest the suspected information. For example, reassuring children that disclosure will not be punished increases true reports without increasing errors (Lyon et al., 2008), but only when a suspected transgression is not mentioned (Lyon & Dorado, 2008). Reassurance may reduce children's fears that the recipient of their disclosure will react negatively to their report. Asking children to promise to "tell the truth" also increases children's willingness to disclose transgressions (Evans & Lee, 2010; Talwar et al., 2002, 2004), and does so without increasing false reports (Lyon et al., 2008). "The

truth” has different meaning to different children, implying a transgression only to children who have committed one. The promise may activate children’s awareness of the importance of abiding by one’s oral commitments to others, which appears meaningful even to very young children (Grafenhain, Behne, Carpenter, & Tomasello, 2009).

An as-yet unexplored approach to eliciting disclosures of transgressions is to tell the child that the suspect already disclosed what occurred. Telling children what others have said can be suggestive insofar as the interviewer provides specific information regarding what the other person said (Garven, Wood, Malpass, & Shaw, 1998). To avoid such a suggestion, an interviewer could tell the child that the suspect disclosed “everything that happened,” and wants the child to “tell the truth,” without specifying what “everything” entails or what the interviewer suspects is the “truth.” We will refer to this approach as a “putative confession.”

Like “the truth,” “everything that happened” is likely to mean something different to children who have and have not transgressed. At the same time, “everything that happened” is non-suggestive, as long as there was any interaction between the child and the suspect. In other words, if the child and the suspect interacted, then “something” happened. If the child has transgressed, she is likely to assume that the suspect has confessed the transgression. If the child has not transgressed, then she will simply assume that the suspect disclosed the innocent interaction.

At some point in development, however, children are likely to acquire the understanding that “everything” is referentially ambiguous and will not impute to the interviewer knowledge of what actually occurred. Until that occurs, a putative confession might increase disclosures of transgressions for two reasons. First, it may alleviate the child’s concerns about the reactions of the suspect should the child disclose. Second, it may reduce the child’s concerns about the

interviewer's reactions as well, since it implies that the interviewer already knows about the transgression.

Present Study

We examined the effects of narrative practice rapport building and a putative confession on 4- to 9-year-old maltreated and non-maltreated children's disclosure of a minor moral transgression. Each child interacted with a stranger, during which they played with several toys. While playing, two toys appeared to break. The stranger told the child that they should not have played with the breakable toys and asked the child to keep a secret, noting that they "might get in trouble" if their play was discovered. An interviewer then questioned the child. She began by using either narrative practice rapport building or closed-ended rapport building. She then administered a putative confession or control instructions and asked free-recall, cued-recall, and yes/no questions about what happened with the stranger.

We predicted that narrative practice rapport building and a putative confession would increase both children's willingness to disclose the transgression and the productivity of children's reports. We anticipated that a putative confession would have larger effects on younger children: they are sometimes more receptive to a promise to tell the truth (Lyon et al., 2008), and they might be less likely to recognize the referential ambiguity of "everything that happened" (Beal & Flavell, 1984). We predicted that age and maltreatment would also affect disclosure: Younger children and maltreated children would be less likely to disclose the transgression; young children are most likely to keep secrets (Bussey & Grimbeek, 1995), and young maltreated children are most likely to endorse non-disclosure of strangers' moral transgressions (Lyon et al., 2010).

Method

Participants

The sample included 264 4- to 9-year-old maltreated ($N = 156$) and non-maltreated children ($N = 108$) (50% girls). The maltreated sample consisted of children substantiated as suffering from neglect and/or physical or sexual abuse who had been removed from the custody of their parents or guardians. Children gave their assent to participate, and consent was obtained from the Presiding Judge of Juvenile Court and the children's attorneys. Maltreated children were not eligible if they were awaiting a hearing at which they might testify or if they were not English-speaking. Children in the non-maltreated sample were recruited from schools serving predominantly ethnic minority families in neighborhoods comparable to those from which most maltreated children were removed. Both groups were predominantly low-income: prior research with a similar maltreated population found that 86% of the maltreated children had received food stamps within the previous 5 years (Lyon & Saywitz, 1999), and 72-96% of students attending the three elementary schools from which the non-maltreated participants were drawn were eligible for free or reduced-price school lunches. Children in the non-maltreated sample who were not in the custody of one or both parents were excluded because of the potential that they had been removed from their parents' care due to maltreatment.

In the maltreated sample, 62% were Latino/a ($N = 96$), 22% African-American ($N = 34$), 10% Caucasian ($N = 15$), 1% Asian ($N = 2$), and 6% unknown and biracial ($N = 9$). In the non-maltreated sample, 57% were Latino/a ($N = 62$), 37% African-American ($N = 40$), 0% Caucasian, 2% Asian ($N = 2$), and 4% unknown and biracial ($N = 4$). Review of the maltreated children's court files revealed that 60% of the cases were child neglect only ($N = 93$), 33% physical abuse ($N = 51$), and 10% sexual abuse ($N = 16$) (in 6 cases a child had been both

physically and sexually abused, and records were missing for one child). The median child had been out of the home for 1.33 years (range = 4 days to 9.75 years).

Materials and Procedure

After obtaining assent from the child and administering preliminary tasks (which are not discussed further), a female interviewer told the child that she forgot some papers and needed to retrieve them from her office. A stranger entered the room shortly thereafter and expressed interest in playing with toys on shelves facing the child (for 64% of the children, the stranger was a male, distributed equally among conditions and across age). There were eight boxes of toys on two sets of shelves; four on the child's left and four on the child's right. Each box contained two of the same type of toy. The stranger retrieved a box, removed a toy, described it, and demonstrated how it could be played with. He then removed the other toy and gave it to the child so that the child could play. The stranger then placed the toys back in the box and returned the box to the shelf, turning the box to reveal a picture of the toy (thus facilitating the child's subsequent recall of play). The stranger played with six of the eight toys (three per shelf), turning the boxes on the two remaining toys during the course of play so that their pictures were also visible. Two toys from the second shelf (a car and a rooster) appeared to break while the child was playing with the toy. The stranger described what occurred (e.g. "when you pushed the car the wheel broke off"), expressed concern ("this is not good"), and made an attempt to conceal the breakage ("let's put these back in the box so that no one knows it broke"). The stranger admonished the child that the toys from the second shelf were "breakable." Upon leaving the room, the stranger asked the child not to disclose that they had played with the breakable toys, stating that "we might get into trouble if she finds out."

The interviewer re-entered shortly thereafter and thanked the child for waiting. There were two fully crossed interview conditions: rapport building and instructions. Rapport building lasted five minutes and was either narrative practice (open-ended) or closed-ended. Narrative practice rapport building was modeled after the NICHD structured protocol for interviewing children about suspected abuse (Sternberg et al., 1997). The interviewer asked the child about things she liked to do and didn't like to do, and then asked the child to describe everything she did the day before the interview. Open-ended follow-up questions were used throughout, for example, "You said you brushed your teeth; what happened next?" Closed-ended rapport building was comparable to the rapport building forensic interviewers typically use (Warren et al., 1996) and consisted of largely objective yes/no and closed-ended questions about the child, such as "How many brothers and sisters do you have?"

The two instruction conditions were putative confession and control. In the putative confession condition, the interviewer told children, "The man/lady who came in here told me everything that happened and he/she wants you to tell the truth." In the control condition, the interviewer did not give children instructions.

Free and cued recall. The interviewer asked the child to tell her everything that happened in the room while she was gone. She asked "what happened next" questions until the child mentioned the stranger leaving the room. The interviewer followed up any mention of play with a specific toy with a request for additional information, e.g., "You said you played with the lobster. Tell me everything you did with the lobster." If the child mentioned any breakage the interviewer asked for additional information, e.g., "You said the car broke. Tell me everything about that."

Yes/no questions. The interviewer stated, “Now let me make sure I have this right,” and asked a yes/no question regarding whether the child played with each of the eight toys (e.g., “Did you play with the dog?”). If the child answered affirmatively, the interviewer followed up with “Tell me about that.” The final question was “Did anything bad happen with any of the toys?” No follow-up was provided to this question.

Debriefing. The stranger re-entered the room, and the interviewer explained to the child that she knew the stranger would come in and play with the child. She emphasized the importance of always telling the truth about what happened and reassured the child that no one was in trouble for the broken toys and that they could be fixed.

Coding. The sessions were videotaped and transcribed. Children’s free and cued recall responses were coded dichotomously for disclosure of forbidden play and disclosure of breakage. In addition, the number of details provided about forbidden play, permissible play, and breakage was calculated (two coders independently coded 20% of the transcripts and reached 90% agreement). Children’s yes/no responses were coded for assent or denial and for spontaneous disclosure of forbidden play and breakage.

Results

Preliminary Analyses

First, we examined the comparability of the maltreated and non-maltreated children. There were no significant differences in age, gender, and ethnicity between the maltreated and non-maltreated groups.

Next, preliminary analyses tested for other potential confounds. Nine percent of the children ($N = 23$) disclosed breakage before rapport building was complete. These children were more likely to be maltreated, $X^2(1, N = 264) = 3.83, p = .05, \phi = .12$ (12% of maltreated children

vs. 5% of non-maltreated children), but did not differ with respect to age, gender, or ethnicity. These participants were removed from the main analyses, leaving a final sample of 241 children. Child age, gender, and ethnicity, and confederate gender were comparable across conditions, and both child gender and confederate gender were unrelated to children's responses. In response to the free and cued recall, Latino children were less likely than non-Latino children to disclose forbidden play (54% vs. 73%), $X^2(1, N = 241) = 7.97, p = .005, \phi = .19$, and breakage (29% vs. 56%), $X^2(1, N = 241) = 16.04, p < .001, \phi = .27$. No other ethnic differences emerged, and ethnicity did not interact with the other study conditions to influence children's performance.

Free and Cued Recall

Of primary interest was whether the likelihood of children disclosing forbidden play or breakage varied depending on rapport or instruction condition, or across age or maltreatment status. The dichotomous scores (disclosure/non-disclosure), separate for forbidden play and breakage, were entered into logistic regressions with rapport (narrative practice vs. closed-ended), instruction (putative confession vs. control), age in years, and maltreatment status as predictors. For forbidden play disclosure, no significant effects emerged. For breakage, the model was significant, $X^2(4, N = 241) = 14.82, p = .005$, with instruction condition emerging as a significant predictor: Children in the putative confession condition were significantly more likely to disclose breakage (48%) than children in the control group (28%), $Wald = 10.28, p = .001, OR = 2.43$. There were no age or maltreatment effects. A test for an interaction between age and instruction condition was not significant: A putative confession was equally effective across age.

We next tested our predictions concerning the effects of rapport and instructions on the amount of information children provided via a 2 (rapport) X 2 (instruction) X 2 (maltreatment

status) MANOVA, with age in years entered as a continuous variable. Dependent measures included the number of statements regarding forbidden toy play details, breakage details, and permissible toy details. A significant effect of instruction emerged, $F(3, 234) = 5.99, p = .001, \eta_p^2 = .07$, with a corresponding significant univariate effect for amount of information provided about both forbidden play and breakage: forbidden play $F(1, 236) = 15.42, p < .001, \eta_p^2 = .06$, and breakage $F(1, 236) = 8.70, p = .003, \eta_p^2 = .04$. Children in the putative confession condition disclosed more details about forbidden play ($M = 6.3$) than children in the control condition ($M = 3.5$), and more details about breakage ($M = 3.0$) than children in the control condition ($M = 1.7$) (Figure 1). There were no age or maltreatment effects, and tests for an interaction between age and instruction condition were again nonsignificant.

Based on Sternberg and colleagues' (1997) finding that disclosing children reported more after narrative practice rapport building, we conducted exploratory analyses to determine if narrative practice exhibited benefits among the subset of participants who disclosed forbidden play or breakage. Among children who disclosed forbidden play in free and cued recall, those who received both the putative confession and narrative practice produced the greatest number of details ($M = 10.62$) about that play, $F(1, 141) = 3.91, p = .05$, relative to those who received only narrative practice, only the putative confession, or neither; M s ranged from 6.72-7.63, post-hoc Tukey t-tests $p < .03$. Among children who explicitly disclosed breakage, no effects of narrative practice or the combination of narrative practice and putative confession emerged.

Yes/No Questions

The yes/no questions asked children directly whether they had played with each of the eight toys, and afterward whether anything bad happened with the toys. For the six toys that children had in fact played with, two proportion assent scores (forbidden toys and permissible

toys) were entered into a 2 (rapport) X 2 (instruction) X 2 (maltreated) MANOVA, age entered continuously. The multivariate effects of instruction, $F(2, 235) = 7.67, p = .001, \eta_p^2 = .06$, and age were significant, $F(2, 235) = 6.64, p = .002, \eta_p^2 = .05$. The univariate effect of instruction was significant for forbidden play, $F(1, 236) = 10.71, p = .001, \eta_p^2 = .04$. Children who received the putative confession instructions were more likely to assent to questions about forbidden play ($M = .72, SD = .40$) than children in the control group ($M = .54, SD = .44$). The univariate effect of age was significant for permissible play, $F(1, 236) = 11.10, p = .001, \eta_p^2 = .05$: With age, children's assents to questions about permissible play increased, $r(241) = .20, p = .002$. There were no maltreatment effects.

In response to the final question, "Did anything bad happen with the toys?" a logistic regression analysis revealed significant effects for instruction and age on the percentage of children who said yes, model $X^2(4, N = 241) = 12.69, p = .01$. Children in the putative confession condition (55%) were significantly more likely to assent than children in the control condition (40%), $Wald = 5.26, p = .02, OR = 1.83$. With age, children were also increasingly likely to assent, $Wald = 6.84, p = .009, r(240) = .17, p = .007$. There was no maltreatment effect.

Children could disclose breakage in response to the yes/no questions in two ways. First, they could mention the breakage when their affirmative answers to the "Did you play..." questions were followed up with the, "Tell me about that" prompts. Second, they could spontaneously mention toy breakage when responding to the question, "Did anything bad happen to the toys?" A logistic regression predicting whether children mentioned breakage during the yes/no questions revealed no significant effects of rapport, putative confession, age, or maltreatment status.

In practical terms, yes/no questions might be considered unnecessary (or even counterproductive) for children who disclosed breakage during free and cued recall. We therefore examined children's yes/no performance in light of their disclosures during free and cued recall. Of the 150 children who failed to disclose breakage during free and cued recall, 8% ($N = 12$) disclosed breakage during the yes/no questions about toy play, and another 20% ($N = 30$) disclosed breakage when asked if something bad happened with the toys. Also of interest, when the 91 children who had disclosed breakage during free and cued recall were considered, 7% ($N = 6$) disclosed again when asked yes/no questions about play, and 57% ($N = 52$) disclosed again when asked if anything bad happened with the toys. Remarkably, 36% ($N = 33$) of children who had previously disclosed breakage in free or cued recall did *not* mention breakage again during the yes/no questions, even when directly asked whether something bad happened with the toys. In sum, asking the children yes/no questions following free and cued recall elicited new disclosures of breakage among a substantial group of children ($N = 42$), but also failed to elicit disclosures of breakage among many children who had previously disclosed ($N = 33$).

False Claims of Play and Breakage

Because children did not play with two of the toys, one from the forbidden toy shelf and one from the permissible toy shelf, we were able to determine whether and in what circumstances children falsely assented to play. In free and cued recall, 16% ($N = 38$) falsely claimed play with the toy from the permissible shelf, whereas 5% ($N = 12$) falsely claimed play with the toy from the forbidden shelf, $X^2(1, N = 241) = 24.63, p < .001, \phi = .32$. A logistic regression indicated that false claims were unrelated to rapport building, instructions, age, or maltreatment status. The higher rate of false claims of permissible play hinted that some

children were falsely assenting as part of their attempt to conceal forbidden play. Indeed, children who failed to disclose breakage were more likely to make false claims of permissible play (23%, $N = 34$) than children who disclosed breakage (4%, $N = 4$), $X^2(1, N = 241) = 14.24$, $p < .001$, $\phi = .24$.

In response to the yes/no questions, 18% ($N = 44$) falsely claimed permissible play and 10% ($N = 24$) falsely claimed forbidden play, $X^2(1, N = 241) = 28.69$, $p < .001$, $\phi = .35$. A logistic regression found that false claims of permissible play were unrelated to rapport building, instructions, age and maltreatment status. The model predicting false claims of forbidden play, though, was significant, $X^2(4, N = 241) = 16.54$, $p = .002$. With age, $Wald\ 10.30$, $p = .001$, $r(241) = -.22$, $p = .001$, children were less likely to make false claims of forbidden play, as were maltreated children, $Wald = 3.78$, $p = .05$, $OR = .60$.

False reports of breakage were uncommon, occurring in 6% of the entire sample ($N = 14$; 11 during free and cued recall, and 3 during yes/no questioning). These were unrelated to rapport building, instruction, age, or maltreatment status. All but one of the 14 children who made a false report also disclosed true breakage, which suggests that children were influenced by the confederate's statement that the toys were "breakable."

Discussion

This study examined the potential for novel interviewing approaches to elicit disclosures of transgressions from children. Only about a third of 4- to 9-year-olds who believed that they and the confederate had broken toys disclosed breakage when first questioned. A putative confession elicited disclosures from an additional 20% of children during free and cued recall, and increased the likelihood that children disclosed forbidden play and breakage in response to yes/no questions. In other words, simply informing the child that a stranger "told me everything

that happened” and that he “wants you to tell the truth” elicited disclosure from a substantial number of children across a wide age range, in both maltreated and non-maltreated children. The uniformly positive effects may be due to the fact that the instruction was non-specific: The interviewer did not suggest what he or she believed occurred. Narrative practice rapport building, in contrast, did not affect the likelihood that children disclosed or the amount of information that children disclosed. Yes/no questions, which included a direct question about whether “anything bad happened with the toys” elicited additional reports of breakage, but also elicited a small number of false reports. Finally, neither narrative practice rapport building nor a putative confession increased false reports. Next, we turn to a more detailed discussion the main findings that emerged, first in terms of age and maltreatment effects, and then in terms of narrative rapport and a putative confession.

Age Effects

The observed age effects suggest changes in children’s attitudes about lying. Older children were no more likely than younger children to divulge the secret when asked recall questions and recognition questions about their interaction. However, they were more likely than younger children to disclose the transgression when directly asked “did anything bad happen with the toys?” Hence, they were as likely as younger children to omit information, but less likely to utter a falsehood. As we noted in the introduction, the danger of yes/no questions, particularly when they directly suggest wrongdoing, is that they increase the risk of false allegations (e.g., Thompson et al., 1997). However, older children are less susceptible to suggestion, which hints that direct questions about transgressions may be both more productive and less risky as children develop.

Older children's failure to reveal transgressions in free and cued recall more often than younger children appears inconsistent with prior research (Pipe & Wilson, 1994), although this may reflect the extent to which children felt implicated in the transgression. Pipe and Wilson (1994) manipulated children's complicity by varying whether children merely observed a magician spill ink on some gloves, or wore the gloves when they were stained. However, in both cases the magician spilled the ink, not the child. Indeed, children who wore the gloves were more (rather than less) inclined to disclose than the observers, suggesting that they did not in fact feel complicit. The extent to which older children are more forthcoming about transgressions may be a product of their sense of complicity and the directness of the interviewer's approach.

Older children appeared to behave more strategically than younger children when answering the yes/no questions about play. They were more likely to disclose permissible play and less likely to make false claims of prohibited play. Younger children may have been less adept at selectively acknowledging or denying toy play. That is, they were cognizant of the need to conceal breakage, but they may have had difficulty in recognizing when denial was unnecessary (when asked about playing with the permissible toys) and when acknowledgement was potentially damning (when asked about playing with the breakable toys).

We were surprised that a putative confession was equally effective across the age range. We had suspected that older children might see through the ambiguity of "everything that happened," and "wants you to tell the truth," recognizing that the confederate need not have disclosed wrongdoing. Although even young children exhibit some understanding of referential ambiguity (Nilsen & Graham, 2012), the ambiguity was subtle in this study. First, it concerned statements made by the confederate to the interviewer, rather than immediately perceptible objects. Researchers examining children's early understanding of referential ambiguity tend to

utilize arrays of objects, which enable children to scan the potential referents while processing the ambiguous utterance (Nadig & Sedivy, 2002; Nilsen & Graham, 2012). Second, children who were focused on the need to conceal breakage were likely very quick to infer the implication of “everything that happened.” Concluding that it referred to breakage, their ability to identify ambiguity would be impaired. Analogously, children who are aware of an intended referent are impaired in detecting ambiguous reference (Beal & Flavell, 1984). Future research should examine the effects of putative confession in still older children; it seems certain that at some point they will see through the manipulation.

Maltreatment and Ethnicity Effects

Maltreated children differed little from non-maltreated children. We suspected that maltreated children would be more inclined to keep the secret, but there was no support for this prediction. Rather, among the small percentage of children who disclosed very early in the interview, maltreated children were more likely than non-maltreated children to disclose. We based our predictions on maltreated children’s expectations that adults will be unsupportive (Shields, Ryan, & Cicchetti, 2001; Shipman & Zeman, 2001; Toth, Cicchetti, Macfie, Rogosch, & Maughan, 2000), and on younger maltreated children’s lower endorsement of disclosure against transgressing adults (Lyon et al., 2010). However, children were confronted with two adults in our study who they might distrust: the confederate and the interviewer. Distrust could both increase their willingness to disclose (because they would place little trust in the confederate) and decrease their willingness to disclose (because they would place little trust in the interviewer). Perhaps most important, maltreated children were as influenced by a putative confession and rapport building as non-maltreated children, a positive finding given the need to identify effective interviewing strategies with children who have been mistreated.

Maltreated children were less likely to falsely assent to questions about forbidden play, and thus appeared less suggestible than the non-maltreated children. Previous research has failed to find differences in suggestibility between maltreated and non-maltreated children (Eisen, Goodman, Qin, Davis, & Crayton, 2007). Prior research has not examined maltreated children's suggestibility in contexts in which the child might be implicated in wrongdoing and therefore motivated to avoid unwarranted punishment. Maltreated children are faster to accurately detect anger in facial expressions (Pollak & Sinha, 2002), and are better at identifying and negatively evaluating lies (Lyon, Carrick, & Quas, 2010). Future research should explore whether maltreated children's sensitivities lead them specifically to avoid falsely implicating themselves.

A surprising finding was that Latino children were more inclined to keep forbidden play and breakage a secret. Research on abuse disclosure has not consistently found ethnic differences (London, Bruck, Ceci, & Shuman, 2005; Malloy, Lyon, & Quas, 2007). There is some evidence that sexually abused Latinas delay disclosing more so than African-American girls (Shaw, Lewis, Loeb, Rosado, & Rodriguez, 2001), and it is notable that over half of the non-Latino children in our sample were African-American. However, because our results were not predicted, and because of the characteristics of our sample (i.e., predominantly low income children, half of whom had been removed from their home because of maltreatment), we view our results with caution.

Rapport Building Effects

It may seem surprising that narrative practice rapport building did not increase the likelihood that children would disclose forbidden play or breakage, directly or in conjunction with a putative confession. At first glance, the lack of an effect of rapport appears inconsistent with laboratory research finding that interviewer supportiveness improves children's

performance (Almerigogna, et al., 2007; Carter, et al., 1996; Davis & Bottoms, 2002; Goodman, et al., 1991; Quas & Lench, 2007). However, this study is different in several important respects. First, we examined children's willingness to disclose a transgression, whereas the laboratory research on interview support has examined scenarios in which children were not motivated to conceal information. Second, we specifically compared closed-ended rapport to narrative practice rapport, keeping other aspects of the interviewer-child interaction constant. In contrast, in the laboratory studies, the unsupportive interviewer made little or no attempt to build rapport, and exhibited unsupportive nonverbal behaviors (such as never smiling). Therefore, the positive effects of the laboratory studies could be attributed to the difference between some rapport versus no rapport or to the behavior of the interviewer throughout the interview. The negative demeanor of the non-supportive interviewer has led several commentators to suggest that the laboratory supportiveness studies may reveal more about the counterproductivity of unsupportive interviewing than the benefits of increasing interviewer support (Bottoms, Quas, & Davis, 2007; Hershkowitz, 2009), and demeanor alone has been shown to affect children's performance (Almerigogna, Ost, Akehurt, & Fluck, 2008). Third, our interview occurred immediately after the target event, and we focused on children's productivity when asked free and cued recall questions, while avoiding highly suggestive questions. In contrast, the laboratory support studies have primarily found that supportiveness increases children's resistance to suggestion, with no or minimal effects on recall (for a review, see Bottoms, Quas, & Davis, 2007).

Our results may also appear to conflict with field research on the benefits of rapport building with children questioned about suspected abuse. However, in most of that research, rapport building was not systematically manipulated, making it difficult to assess causality. Hershkowitz (2009) found a positive correlation between the proportion of open-ended questions

during rapport building and the number of details children provided in response to open-ended questions about abuse, but she warned that the relation could be driven by children's verbal productivity: if children responded fully to open-ended questions during rapport building, this would reduce the need to ask closed-ended questions. Price, Roberts, and Collins (2013) found that children provided more details per prompt when their reports were preceded by open-ended narrative practice, but they cautioned that interviewers who used more narrative practice may also have asked more open-ended substantive questions about abuse.

Clearer evidence of the benefits of narrative practice rapport building comes from a study in which social workers were assigned to either engage in typical rapport-building (which consisted predominantly of closed-ended questions) or were trained to utilize open-ended narrative practice (Sternberg et al., 1997). Children interviewed with narrative practice produced more details about abuse in their initial free recall. The key distinction is that the current study tested whether children are more likely to disclose wrongdoing when narrative practice is used. In contrast, Sternberg and colleagues (1997) tested whether disclosing children said more; not whether narrative practice increases the likelihood of disclosure. In other words, children who made no disclosure whatsoever were not included in the study. Furthermore, children who disclose abuse in field research are likely to have disclosed abuse before the interview and are therefore disproportionately willing to disclose. Sternberg and colleagues (1997) noted that "the children may have talked to parents, friends, and relatives" about the abuse before the formal interview (p. 1137), and although the researchers did not collect this information, other evidence indicates that children's first disclosure is rarely to officials (such as social workers or law enforcement) (Sas & Cunningham, 1995). Likewise, large percentages of clinical samples of children questioned about sexual abuse have previously disclosed (Heger, Ticson, Velasquez, &

Bernier, 2002), because disclosure is one of the primary reasons that sexual abuse is suspected (Lyon, 2007). Therefore, the field research on children disclosing abuse reveals more about how disclosing children's reports can be enhanced than it does about how children can be encouraged to disclose.

Our exploratory analyses found that combining narrative practice with the putative confession increased the number of details that children provided about forbidden play. This provides some, albeit tentative evidence that the benefits of narrative practice rapport building may become more apparent when combined with techniques that overcome children's initial reluctance to disclose. Because the finding is post-hoc, however, further work is needed to elucidate the possible benefits of narrative practice in questioning reluctant children.

Limitations and future directions

Although our results suggest novel means of eliciting honest disclosures from children, limitations should be acknowledged. One such limitation is that the transgression in question was relatively minor. Because the forbidden play and toy breakage constituted violation of another person's property rights, they were likely viewed by children as moral transgressions, but less serious than physical harm (Elkind & Dabek, 1977). Children may be less responsive to a putative confession when the costs of disclosure are more serious, as when abuse has occurred. Similarly, children tend to be less inclined to keep a secret for a stranger than for a parent (Tye, Amato, Honts, Devitt, & Peters, 1999). At the same time, children's motivations to disclose abuse may be stronger than their motivations to disclose less serious transgressions, and a putative confession may exert a larger effect when the child is particularly concerned about a familial perpetrator's reaction to disclosure.

A second limitation is that we do not know what effect narrative practice or a putative confession will have after a delay. We deliberately questioned children immediately after their interaction so as to evaluate the effects of the manipulations on children's willingness to report transgressions (rather than their ability to remember them). Narrative practice might have a more beneficial effect after a delay, because delays have especially large effects on recall, and narrative practice has been hypothesized to increase productivity by encouraging the child to practice recall strategies during rapport building (Roberts et al., 2004). On the other hand, as memory fades, there might be a greater tendency for false information to be elicited through any approach that increases children's productivity. A putative confession might also have stronger effects after a delay, because a claim that the suspect has told "everything" could be more plausible if there has been a longer delay between the suspect's encouragement of secrecy and the interview. On the other hand, delays may make a putative confession less effective, because "everything that happened" could refer to a larger number of events and thus may be insufficiently specific in order to elicit an allegation from the child.

A third limitation is that narrative practice and a putative confession have uncertain effects on false allegations. In this study, neither manipulation increased false reports, but we did not test the effects on reports when no transgression occurred, or in the face of suggestion or coaching. Although narrative practice has improved productivity in field studies (Sternberg et al., 1997), the extent to which the additional information was true could not be determined. Narrative practice may increase true details more than false details because encouraging recall rather than recognition enhances accuracy. However, it could also increase the productivity of false reports, particularly if the child has false memories. A putative confession might reduce false allegations against a suspect because it emphasizes that the interviewer has spoken to the

suspect and has elicited his perspective. However, it is possible that, when combined with suggestive questions, a putative confession could have negative effects.

Future research can also explore the possible mechanisms by which a putative confession affects disclosure. Although it seems likely that it reduces the child's concerns about the reactions of the suspect and the interviewer to disclosure, this needs to be directly tested. Indeed, we understand little about the mechanisms underlying the efficacy of a number of techniques that have been found to increase disclosure of transgressions, including direct questions, reassurance, and a promise to tell the truth. One challenge is how those mechanisms can be uncovered. Asking children for their reasoning about disclosure could be informative, though children might have limited insight into the causes of their behavior (Nisbett & Wilson, 1977). It will also be helpful to assess the different components of the various techniques, and determine what combination is maximally effective.

Should a Putative Confession be Used by Interviewers?

Once limitations to the findings are addressed, the potential use of a putative confession raises practical and legal concerns. In cases in which a suspect has confessed, a putative confession seems appropriate. One might ask, however, why the interviewer needs to worry about revealing the specifics of the confession to the child in such a case. Two concerns remain. First, if the confession is subsequently held inadmissible in court, then revealing the contents of the confession to the child could lead to the exclusion of the child's statements as tainted by the confession (Dressler & Michaels, 2006). Second, even if the confession is subsequently admitted, the fact that revealing specifics of what others have said has suggestive effects (Garven et al., 1998) means that the child's report may be distorted by the suspect's report.

If the suspect has not confessed, would it be appropriate to utilize a putative confession? If the suspect has answered questions, but denies the abuse, one could ask the suspect whether he has told everything and whether he wants the child to tell the truth. Suspects are likely to answer both questions affirmatively, since to do otherwise would imply guilt. It would then be accurate to relay a putative confession to the child, and allow the child's perceptions of what "everything" and "the truth" entail to guide the interview.

Interviewers may object that a putative confession's efficacy depends on misleading the child, and that the child who discloses and then discovers that the suspect denied wrongdoing may feel wronged. Whether a putative confession does in fact have such an effect, and how this compares to the advantages of uncovering undisclosed transgressions, are important topics for future study and debate.

In conclusion, decades of research have revealed a great deal about how to elicit false reports in children, but much less about how to elicit true reports from children who are reluctant to disclose. In the paradigm introduced here, children had an enjoyable interaction with a stranger that turned sour when things went wrong, motivating a substantial majority to conceal information, even when questioned in a child-friendly manner by an interviewer who used the latest techniques for productively interviewing children. A novel method—a putative confession—substantially increased disclosure without increasing false reports, a method that may ultimately prove valuable with reluctant children in the field.

References

- Ahern, E. C., Lyon, T. D., & Quas, J. A. (2011). Young children's emerging ability to make false statements. *Developmental Psychology*, 47, 61–66. doi: 10.1037/a0021272
- Almerigogna, J., Ost, J., Akehurst, L., & Fluck, M. (2008). How interviewers' nonverbal behaviors can affect children's perceptions and suggestibility. *Journal of Experimental Child Psychology*, 100, 17–39. doi:10.1016/j.jecp.2008.01.006
- Almerigogna, J., Ost, J., Bull, R., & Akehurst, L. (2007). A state of high anxiety: How non-supportive interviewers can increase the suggestibility of child witnesses. *Applied Cognitive Psychology*, 21, 963–974. doi: 10.1002/acp.1311
- Anderson, J., Martin, J., Mullen, P., Romans, S., & Herbison, P. (1993). Prevalence of childhood sexual abuse experiences in a community sample of women. *Journal of the American Academy of Child and Adolescent Psychiatry*, 32, 911–919. doi: 10.1097/00004583-199309000-00004
- Beal, C.R., & Flavell, J.H. (1984). Development of the ability to distinguish communicative intention and literal message meaning. *Child Development*, 55, 920–928. doi: 10.2307/1130143
- Bottoms, B. L., Quas, J. A., & Davis, S. L. (2007). The influence of interviewer-provided social support on children's suggestibility, memory, and disclosures. In M.-E. Pipe, M. E., Lamb, Y. Orbach, & A. C. Cederborg (Eds.), *Child sexual abuse: Disclosure, delay, and denial* (pp. 135–158). Mahwah, NJ: Lawrence Erlbaum.
- Bussey, K. (1992). Lying and truthfulness: Children's definitions, standards, and evaluative reactions. *Child Development*, 63, 129–137. doi: 10.1111/j.1467-8624

- Bussey, K. (1999). Children's categorization and evaluation of different types of lies and truths. *Child Development, 70*, 1338–1347. doi: 10.1111/1467-8624.00098
- Bussey, K., & Grimbeek, E. J. (1995). Disclosure processes: Issues for child sexual abuse victims. In K. Rotenberg (Ed.), *Disclosure processes in children and adolescents* (pp. 166–203). NY: Cambridge University Press.
- Carlson, S. M., Moses, L. J., & Hix, H. R. (1998). The role of inhibitory processes in young children's difficulties with deception and false belief. *Child Development, 69*, 672–691. doi: 10.1111/j.1467-8624
- Carter, C. A., Bottoms, B. L., & Levine, M. (1996). Linguistic and socioemotional influences on the accuracy of children's reports. *Law and Human Behavior, 20*, 335–358. doi: 10.1007/BF01499027
- Davis, S. L., & Bottoms, B. L. (2002). Effects of social support on children's eyewitness reports: A test of the underlying mechanism. *Law and Human Behavior, 26*, 185–215. doi: 10.1023/A:1014692009941
- Dressler, J., & Michaels, A.C. (2006). *Understanding Criminal Procedure* (Vol. 1). Newark, NJ: LexisNexis Matthew Bender.
- Eisen, M. L., Goodman, G. S., Qin, J., Davis, S., & Crayton, J. (2007). Maltreated children's memory: Accuracy, suggestibility and psychopathology. *Developmental Psychology, 43*, 1275–1294. doi: 10.1037/0012-1649.43.6.1275
- Elkind, D., & Dabek, R. F. (1977). Personal injury and property damage in the moral judgments of children. *Child Development, 48*, 518–522. doi: 10.2307/1128648
- Evans A. D., & Lee, K. (2010). Promising to tell the truth makes 8- to 16-year-olds more honest. *Behavioral Sciences & the Law, 28*, 801–811. doi: 10.1002/bsl.960

- Evans, A.D., & Lee, K. (2013). Emergence of lying in very young children. *Developmental Psychology*, 49, 1958-1963. doi: 10.1037/a0031409
- Garven, S., Wood, J. M., Malpass, R. S., Shaw, J. S. (1998). More than suggestion: the effect of interviewing techniques from the McMartin preschool case. *Journal of Applied Psychology*, 83, 347-359. doi: 10.1037/0021-9010.83.3.347
- Goodman, G. S., Bottoms, B. L., Schwartz-Kenney, B. M., & Rudy, L. (1991). Children's testimony about a stressful event: Improving children's reports. *Journal of Narrative and Life History*, 1, 69-99.
- Grafenhain, M., Behne, T. Carpenter, M., & Tomasello, M. (2009). Young children's understanding of joint commitments. *Developmental Psychology*, 45, 1430-1443. doi: 10.1037/a0016122
- Heger, A., Ticson, L., Velasquez, O., & Bernier, R. (2002). Children referred for possible sexual abuse: Medical findings in 2384 children. *Child Abuse & Neglect*, 26, 645-659. doi: 10.1016/S0145-2134(02)00339-3
- Hershkowitz, I. (2009). Socioemotional factors in child sexual abuse investigations. *Child Maltreatment*, 14, 172-181. doi: 10.1177/1077559508326224
- Hershkowitz, I., & Elul, A. (1999). The effects of investigative utterances on Israeli children's reports of physical abuse. *Applied Developmental Science*, 3, 28-33. doi: 10.1207/s1532480xads0301_4
- Hershkowitz, I., Horowitz, D., & Lamb, M. E. (2005). Trends in children's disclosure of abuse in Israel: A national study. *Child Abuse & Neglect*, 29, 1203-1214. doi: 10.1016/j.chiabu.2005.04.008

- Hershkowitz, I., Lanes, O., & Lamb, M. E. (2007). Exploring the disclosure of child sexual abuse with alleged victims and their parents. *Child Abuse & Neglect*, *31*, 111–123. doi: 10.1016/j.chiabu.2006.09.004
- Lamb, M. E., Hershkowitz, I., Orbach, Y., & Esplin, P. W. (Eds.). (2008). *Tell me what happened: Structured investigative interviews of child victims and witnesses*. Hoboken, NJ: Wiley.
- Leclerc, B., Proulx, J., & Beauregard, E. (2009). Examining the modus operandi of sexual offenders against children and its practical implications. *Aggression and Violent Behavior*, *14*, 5-12. doi: 10.1016/j.avb.2008.08.001
- London, K., Bruck, M., Ceci, S. J., & Shuman, D. (2005). Children's disclosure of sexual abuse: What does the research tell us about the ways that children tell? *Psychology, Public Policy, and Law*, *11*, 194-226. doi: 10.1037/1076-8971.11.1.194
- Lyon, T. D. (2007). False denials: Overcoming methodological biases in abuse disclosure research. In M. Pipe, M. Lamb, Y. Orbach & A. C. Cederborg (Eds.), *Child sexual abuse: Disclosure, delay and denial*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Lyon, T. D., Carrick, N., & Quas, J. A. (2010). Young children's competency to take the oath: Effects of task, maltreatment, and age. *Law and Human Behavior*, *34*, 141–149. doi: 10.1007/s10979-009-9177-9
- Lyon, T. D., & Dorado, J. S. (2008). Truth induction in young maltreated children: The effects of oath-taking and reassurance on true and false disclosures. *Child Abuse and Neglect*, *31*, 738-748. doi: 10.1016/j.chiabu.2007.08.008

- Lyon, T. D., Malloy, L., Quas, J. A., & Talwar, V. (2008). Coaching, truth induction, and young maltreated children's false allegations and false denials. *Child Development, 79*, 914-929. doi: 10.1111/j.1467-8624.2008.01167.x
- Lyon, T.D., Ahern, E.A., Malloy, L.A., & Quas, J.A. (2010). Children's reasoning about disclosing adult transgressions: Effects of maltreatment, child age, and adult identity. *Child Development, 81*, 1714-1728. doi:10.1111/j.1467-8624.2010.01505.x
- Lyon, T. D., & Saywitz, K. J. (1999). Young maltreated children's competence to take the oath. *Applied Developmental Science, 3*, 16 –27. doi: 10.1207/s1532480xads0301_3
- Malloy, L. C., Lyon, T. D., & Quas, J. (2007). Filial dependency and recantation of child sexual abuse allegations. *Journal of the American Academy of Child and Adolescent Psychiatry, 46*, 162-170. doi: 10.1097/01.chi.0000246067.77953.f7
- Nadig, A. S., & Sedivy, J. C. (2002). Evidence of perspective- taking constraints in children's on-line reference resolution. *Psychological Science, 13*, 329-336. doi: 10.1111/j.0956-7976.2002.00460.x
- Ney, P. G., Moore, C., McPhee, J., & Trought, P. (1986). Child abuse: A study of the child's perspective. *Child Abuse & Neglect, 10*, 511-518. doi: 10.1016/0145-2134(86)90056-6
- Nilsen, E. S., & Graham, S. A., (2012). The development of preschoolers' appreciation of communicative ambiguity. *Child Development, 83*, 1400-1415. doi: 10.1111/j.1467-8624.2012.01762.x
- Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we know: Verbal reports on mental processes. *Psychological Review, 84*, 231- 259. doi: 10.1037/0033-295X.84.3.231
- Pipe, M., & Wilson, J. C. (1994). Cues and secrets: Influences on children's event reports. *Developmental Psychology, 30*, 515-525. doi: 10.1037/0012-1649.30.4.515

- Polak, A., & Harris, P.L. (1999). Deception by young children following noncompliance. *Developmental Psychology*, 35, 561–568. doi: 10.1037/0012-1649.35.2.561
- Pollak, S. D., & Sinha, P. (2002). Effects of early experience on children's recognition of facial displays of emotion. *Developmental Psychology*, 38, 784–791. doi: 10.1037//0012-1649.38.5.784
- Price, H.L., Roberts, K.P., & Collins, A. (2013). The quality of children's allegations of abused in investigative interviews containing practice narratives. *Journal of Applied Research in Memory and Cognition*, 2, 1-6. doi:10.1016/j.jarmac.2012.03.001
- Quas, J. A., Davis, E., Goodman, G. S., & Myers, J. E. B. (2007). Repeated questions, deception, and children's true and false reports of body touch. *Child Maltreatment*, 12, 60-67. doi: 10.1177/1077559506296141
- Quas, J. A., & Lench, H. (2007). Arousal at encoding, arousal at retrieval, interviewer support, and children's memory for a mild stressor. *Applied Cognitive Psychology*, 21, 289-305. doi: 10.1002/acp.1279
- Roberts, K.P., Brubacher, S.P., Powell, M.B., & Price, H.L. (2011). Practice narratives. In M.E. Lamb, D. LaRooy, C. Katz, & L. Malloy (Eds.), *Children's testimony: A handbook of psychological research and forensic practice* (pp. 129–145). Chichester, UK: Wiley-Blackwell.
- Roberts, K. P., Lamb, M. E., & Sternberg, K. J. (2004). The effects of rapport-building style on children's reports of a staged event. *Applied Cognitive Psychology*, 18, 189–202. doi: 10.1002/acp.957
- Sas, L. D., & Cunningham, A. H. (1995). *Tipping the balance to tell the secret: The public discovery of child sexual abuse*. London, Ontario: London Family Court Clinic.

- Shaw, J. A., Lewis, J. E., Loeb, A., Rosado, J., & Rodriguez, R. A. (2001). A comparison of Hispanic and African-American sexually abused girls and their families. *Child Abuse & Neglect*, 25, 1363–1379. doi: 10.1016/S0145-2134(01)00272-1
- Shields, A., Ryan, R. M., & Cicchetti, D. (2001). Narrative representations of caregivers and emotional dysregulation as predictors of maltreated children's rejection by peers. *Developmental Psychology*, 37, 321–337. doi: 10.1037/0012-1649.37.3.321
- Shipman, K. L., Zeman, J., 2001. Socialization of children's emotion regulation in mother–child dyads: a developmental psychopathology perspective. *Development and Psychopathology* 13, 317–336. doi: 10.1017/S0954579401002073
- Smetana, J. G., Jambon, M., Conry-Murray, C., & Sturge-Apple, M. L. (2012). Reciprocal associations between young children's developing moral judgments and theory of mind. *Developmental Psychology*, 48, 1144–1155. doi: 10.1037/a0025891
- Smith, B.E., & Elstein, S.G. (1993). *The prosecution of child sexual abuse cases*. (final report to the National Center on Child Abuse and Neglect). Washington, DC: American Bar Association.
- Sternberg, K. J., Lamb, M. E., Esplin, P. W., Orbach, Y., & Mitchell, S. (2001). Use of a structured investigative protocol enhances young children's responses to free-recall prompts in the course of forensic interviews. *Journal of Applied Psychology*, 86, 997–1005. doi: 10.1037/0021-9010.86.5.997
- Sternberg, K. J., Lamb, M. E., Hershkowitz, I., Yudilevitch, L., Orbach, Y., Esplin, P. W., et al. (1997). Effects of introductory style on children's abilities to describe experiences of sexual abuse. *Child Abuse & Neglect*, 21, 1133–1146. doi: 10.1016/S0145-2134(97)00071-9

- Talwar, V., & Crossman, A. M. (2012). Children's lies and their detection: Implications for child witness testimony. *Developmental Review, 32*, 337-359. doi: 10.1016/j.dr.2012.06.004
- Talwar, V., & Lee, K. (2008). Social and cognitive correlates of children's lying behavior. *Child Development, 79*, 866-881. doi: 10.1111/j.1467-8624.2008.01164.x
- Talwar, V., Lee, K., Bala, N., & Lindsay, R. C. L. (2002). Children's conceptual knowledge of lie-telling and its relation to their actual behaviors: Implications for court competence examination. *Law and Human Behavior, 26*, 395-415. doi: 10.1023/A:1016379104959
- Talwar, V., Lee, K., Bala, N. & Lindsay, R. C. (2004). Children's lie-telling to conceal a parent's transgression: legal implications. *Law and Human Behavior, 28*, 411-435. doi: 10.1023/B:LAHU.0000039333.51399.f6
- Thompson, W. C., Clarke-Stewart, A., & Lepore, S. J. (1997). What did the janitor do? Suggestive interviewing and the accuracy of children's accounts. *Law & Human Behavior, 21*, 405 – 426. doi: 10.1023/A:1024859219764
- Toth, S. L., Cicchetti, D., Macfie, J., Rogosch, F. A., & Maughan, A. (2000). Narrative representations of moral-affiliative and conflictual themes and behavioral problems in maltreated preschoolers. *Journal of Clinical Child Psychology, 29*, 307-318. doi: 10.1207/S15374424JCCP2903_2
- Tye, M. C., Amato, S. L., Honts, C. R., Devitt, M. K., & Peters, D. (1999). The willingness of children to lie and the assessment of credibility in an ecologically relevant laboratory setting. *Applied Developmental Science, 3*, 92-109. doi: 10.1207/s1532480xads0302_4
- Warren, A. R., Woodall, C. E., Hunt, J. S., & Perry, N. W. (1996). "It sounds good in theory, but . . .": do investigative interviewers follow guidelines based on memory research? *Child Maltreatment, 1*, 231-245. doi: 10.1177/1077559596001003006

Wilson, A., Smith, M., & Ross, H. (2003). The nature and effects of young children's lies. *Social Development, 12*, 21–45. doi: 10.1111/1467-9507.00220

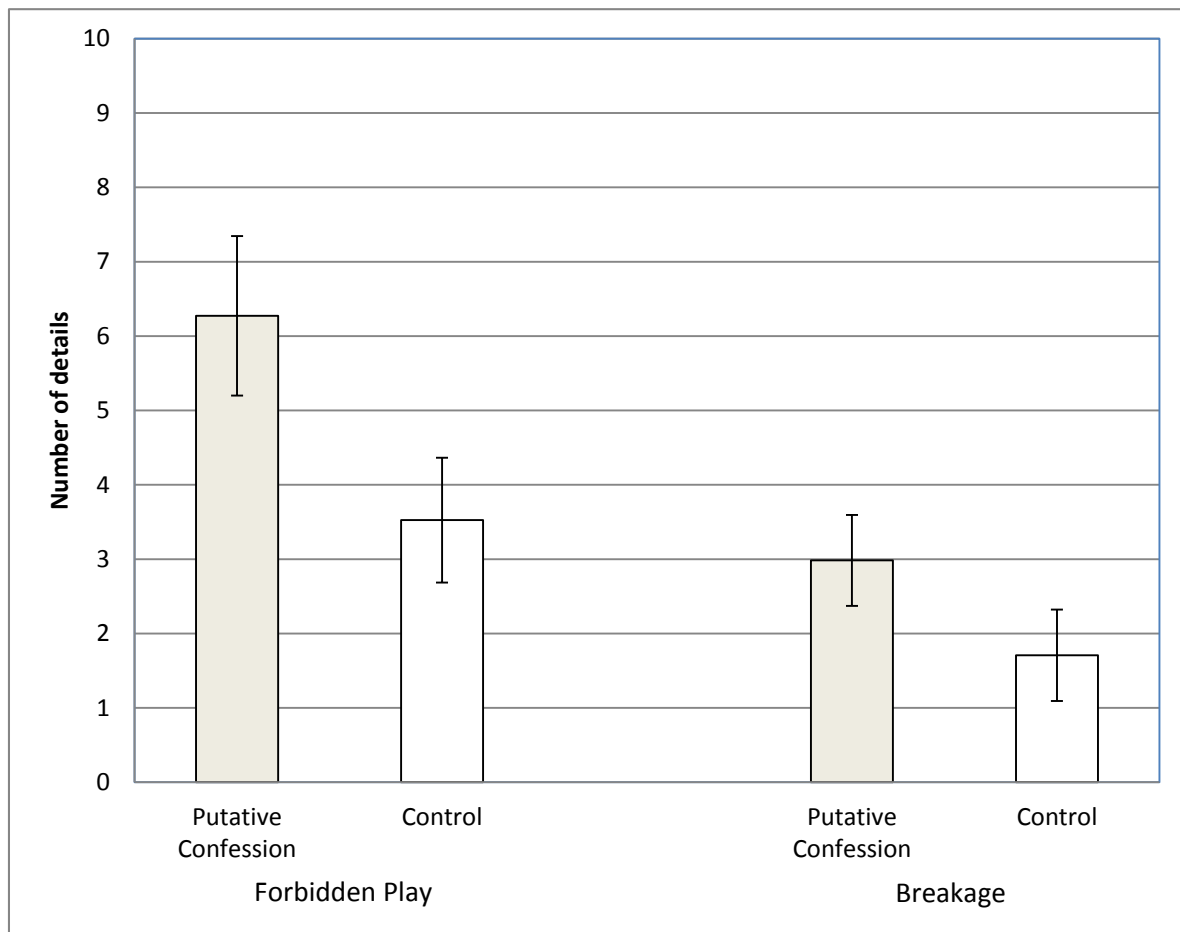


Figure 1. Number of details about forbidden play or breakage during free and cued recall, by instruction condition. Note: Error bars reflect 95% confidence intervals.