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RESEARCH ARTICLE

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The influence of prior knowledge on inexperienced interviewers' questioning of children

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Abstract

Thirty-eight interviewers with no prior investigative interviewing experience questioned school-aged children ($N = 68$, aged 6–10 years) about a personally experienced event. These interviewers relied primarily on question types that are not recommended by interviewing guidelines. Providing interviewers with misleading prior knowledge exacerbated this negative questioning style by significantly increasing the likelihood of suggestive questioning, compared to interviewers who received only vague background information. These findings, coupled with the infiltration of prior knowledge into some children's testimonies, raise concerns about the natural questioning styles to which children are exposed when interviewed by adults who are not trained in forensic interviewing.

KEYWORDS
child interviews, children's eyewitness testimony, informal disclosures

Though many questions about how to the best interview children are still unresolved, a great deal has been accomplished in the development of evidence-based protocols for investigative interviews. In some jurisdictions, practitioners and policy makers work collaboratively with researchers to develop and provide training in procedures that reflect the best of our current knowledge (e.g., Burrows et al., 2013; Ministry of Justice, 2011). These efforts are critical and help to ensure that the official interviews of children within the context of the legal system are as nonsuggestive, open-ended, and supportive of disclosures as possible.

It is important to recognize, however, that even though policy improvements can impact the quality of formal forensic interviews, we have no control over the questions that are posed to children in the conversations in which initial disclosures are shared. Children's initial disclosures of sexual abuse, for example, are most often to mothers, peers, or other family members (Malloy et al., 2013). Although we know that initial disclosure conversations have the potential to introduce inaccuracies into the children's testimonies (due to well-documented mechanisms of memory and suggestibility; e.g., Bruck & Ceci, 1999), we usually do not know the content of these conversations. Surprisingly, little research has systematically explored interviews of children that are carried out by untrained "interviewers" who are "investigating" allegations. As such, the primary aims of the present study were (a) to explore whether prior knowledge about aspects of an event that is being discussed can alter the way in which untrained interviewers question school-aged children, and (b) to observe the possible impact of that knowledge on the children's testimonies.

1 | THE IMPACT OF BIASING INFORMATION

Interview transcripts from multiple-victim sexual abuse cases in the 1980s contained anecdotal evidence that biasing information can pass readily from interviewers to children, as this segment from the Kelly Michaels case illustrates (Ceci & Bruck, 1995, pp. 116–117):

Treacy:	I see and did the kids want Kelly to do that peanut butter stuff?
Child A:	I did not even think that there was a peanut butter…
Treacy:	Well what about licking the peanut butter?

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Child A: There wasn't anything about peanut butter…
Treacy: Some of the kids told me that things happened with knives. Do you remember anything like that?
Child A: No
[Although the child professes no knowledge of utensil abuse, at trial this child testified to numerous abuse allegations.]
Treacy: … Well what about that cat game?
Child A: Cat game?
Treacy: Where everybody went like this, "Meow, Meow."
Child A: I do not think that I was there that day.
[Although the child professes no knowledge of the Cat game, at trial she described a cat game in which all the children were naked and licking each other.]

This style of interviewing, which came to be called a "confirmatory interview," is one in which interviewers "unwittingly guide their decision making and the questioning itself to confirm pre-existing views they may have" (e.g., Smith & Milne, 2011; p. 92). Based on case transcripts and experimental evidence of interrogative suggestibility (susceptibility to questioner influences; Gudjonsson & Clark, 1986), some experts have recommended that the details provided to investigative interviewers be limited to only what is necessary to conduct the interview, thus encouraging interviewers to generate multiple hypotheses about the events under investigation (e.g., Cantlon et al., 1996; Ceci & Bruck, 1995; for a discussion of the limitations of blind interviews, see Poole & Lamb, 1998). Indeed, the recent research has demonstrated that blind interviewers begin interviews less suggestively than do those with background information (Rivard et al., 2016). Moreover, some interviewers themselves agree that there is a benefit to limiting exposure to pre-interview information, though many express concerns about the ability to effectively conduct an interview blind (Rivard & Schreiber Compo, 2017).

Despite evidence that professionals who are charged with assisting investigations can be biased, there is only limited knowledge of how adults typically make use of prior knowledge during unstructured conversations with children. In one demonstration, a social worker and an elementary school teacher each conversed with 3- to 5-year-olds about a play session that was attended by an experimenter and a peer (White et al., 1997). Several days earlier, these interviewers had received both accurate and inaccurate information in the form of a one-page list of "things that might have occurred" (e.g., "David touched Sally's knee;" p. S41). Each of these professionals consistently asked direct questions about the majority of events included in these lists, and children often acquiesced to questions about fictitious information. Surprisingly, it was not uncommon for children who correctly rejected a misleading question to nonetheless elaborate and provide false information (e.g., Interviewer: "Did you kiss [the researcher]?" Child: "No, but [the researcher] kissed me."; p. S46).

In another study, fictitious activities embedded in a misleading video influenced the questions that 4-year-olds received from their mothers and strangers (who were also mothers), raising the percentage of misleading questions related to biasing information from 1% in a control condition to 8% in a biased-interviewer condition (Goodman et al., 1995). However, the impact of the introduction of biasing information by questioners on the children's testimony was modest. Having mothers view a misleading video did not reduce the children's free-recall accuracy or the accuracy of their responses to direct questions. Even when strangers conversed with children, biasing information rarely intruded into narratives prompted by open-ended questions, although such information did appear in responses to misleading questions that interviewers were instructed to deliver at the end of sessions (mean accuracy = 75%).

There was stronger evidence of maternal influence in a "Magic Mumfry" study by Principe and colleagues (Principe et al., 2013). After 3- to 5-year-olds witnessed a magic show presented by Magic Mumfry, some mothers received letters falsely suggesting that a rabbit may have gotten loose and asking them to question their children about this possibility. Twenty percent of the children whose mothers had received the biasing information subsequently made false reports consistent with the suggestion in response to open-ended questioning, compared to none of the children whose mothers had read only a neutral letter. Moreover, children of mothers who probed more for new information (i.e., had an elaborative as opposed to repetitive conversational style; see Reese, Haden, & Fivush, 1993) were more likely than their peers to acquiesce to their mother's comments about an escaped rabbit and, later, to mention this information during a final interview.

In a review of research on conversational contaminants of the children's memory, Principe and Schindewolf (2012) argued that the constructive nature of memory leads children to rely heavily on memory sharing conversations to cohere their accounts of events. That is, memory sharing frequently exposes children to the others' versions of experiences and, as a result, children are accustomed to making the others' experiences part of their own memories. This process is captured by theories of collective memory (e.g., Reese & Fivush, 2008), which conceptualize memory as shared experiences that evolve through conversation with others and are "negotiated" through these conversations. Young children's developing abilities to interpret the social world, coupled with their neurological immaturity that underlies deficiencies in source monitoring and executive control (Kanakogi et al., 2012; Schacter et al., 1995), may make them especially vulnerable to social contaminants on memory, relative to older children and adults.

In sum, the modest literature on the effects of prior knowledge on adult-child conversations has shown (a) that misconceptions can trigger adults to ask direct questions about erroneous events, and (b) that young children sometimes (but not always) acquiesce to these suggestions. However, the path from the adults' prior knowledge to testimonial errors has only been mapped for children between 3 and 5 years of age, which is a time when adults typically scaffold discussions with comments that provide much of the content in these conversations (Wang, 2013). In the current study, we investigated the dynamics of this process in a sample of older children. Investigating suggestibility in older children is important because they typically do

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not receive as much adult scaffolding in conversations as do preschoolers. As such, opportunities for adult influence are likely to be more limited in interactions between older as opposed to younger children and adults. Accordingly, older children may be less vulnerable to adult influences (Bruck & Ceci, 1999). Establishing the influence of the interviewers' prior knowledge on older children will allow for an understanding of how far the effect extends.

2 | THE CURRENT STUDY

This study was designed to explore the ways in which adults naturally question school-aged children about a suspicious event and the impact that such questioning has on the children's reports. We manipulated the nature of the background information interviewers received so as to examine how prior knowledge influenced their selection of questions and, in turn, how the children responded. To keep interviewers uncertain about the actual events, we recruited numerous interviewers who each questioned only one to four children. Given previous research, we anticipated that interviewers who received detailed background information about the allegation of potential wrongdoing would incorporate this information into their questions. Moreover, generalizing from the literature on interrogative suggestibility (e.g., Gudjonsson & Clark, 1986; Poole et al., 2014), we expected that the interviewers' prior knowledge would infiltrate the testimonies of some—but not the majority—of the children.

3 | METHOD

3.1 | Child participants and overview of the study design

Sixty-eight children (65% male, 35% female) with parental permission to participate in the study, aged 6–10 years (M_{age} = 7.60, SD = 1.16, 49%, and 8 years or older), took part in a 15-min activity session with a male research assistant. Although we were unable to obtain additional demographic data from children, they were recruited from predominantly White, urban population. The assistant visited several summer camp groups and led all children attending the camp through a group session involving physical activities (e.g., stretching, jumping jacks) that was followed by imagination activities (e.g., get dressed in a snow suit, pretend to be a bird and fly to the North Pole). Shortly (1–2 days) after the target activity session, each child who was enrolled in the study participated in a one-on-one interview at the camp with an untrained adult interviewer (N = 38). Each interviewer questioned one to four children (M = 1.79) in one of two interview conditions (neutral or biased background information) and was paid $40 for participation.[1] These interviewers only interviewed children in one of the two conditions. Children interviewed by biased adults (n = 35) were several months older, on average, than those interviewed by neutral adults (n = 33, Ms = 7.83 vs. 7.36 years, SDs = 1.25, and 1.03, respectively), but this difference was not significant, p = .10. This study was approved by the institutional ethics board at the University of Regina.

3.2 | Interviewers and interviewing instructions

The interviewers, recruited by word-of-mouth, were mostly graduate students in Psychology and undergraduate students in the Psychology Honors program or the Psychology Students' Association at the University of Regina.[2] We specifically targeted students who were motivated to obtain research experience in interacting with child participants. Most interviewers were female (86.5%) with some level of experience in interacting with children (90.9%), including 45.5% with babysitting or other informal experience with children, 27.3% with professional experience working directly with children, and 18.2% who had children of their own. Among interviewers who reported an age (n = 37), 29.7% were older than 25 years (M_{age} = 26.54, SD = 10.09, and range = 18–61 years). The majority were Caucasian/European (77.8%), with 8.3% East Indian, 8.3% First Nations/Métis, and 5.6% Asian.

Each interviewer received (a) general information on how to interact appropriately with children (e.g., how to respect withdrawal decisions, needs for bathroom visits), (b) specific instructions to "get a full description of everything that happened when [the man] came to visit this week," and (c) either neutral or biased background information.

3.3 | Neutral background information

Interviewers in the neutral background condition (21 volunteers who interviewed 33 children) received only a vague description of the target event:

> Imagine that you are the director of [child care program name]. Recently, two parents expressed concern that their child may have participated in some activities that they did not give permission for with a male visitor who was doing some fitness activities with the kids. Your task is to find out if this child experienced something with this man, and if so, what took place.

3.4 | Biased background information

Interviewers in the biased background condition (17 volunteers who interviewed 35 children) received additional information about the target event, including a detailed description that misrepresented the nature of the experience. The structure of the biasing information was similar to the manner in which a complaint would be reported for investigation. Specifically, interviewers were provided with the following instructions, in which all information except the initial mention of a fitness activity was false:

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Imagine that you are the director of [child care program name]. A visitor was recently invited to conduct a fitness activity with the children at the program. After a brief group activity, the visitor escorted children individually into a special room that had a poster of LeBron James, the NBA player, on the wall. In this room, children were individually tested for their fitness abilities including how many sit-ups and pushups they could do and how quickly they could run. The children also tried on a special outfit designed to help them understand how it would feel to be overweight and answered a series of questions about health and exercise. Children then watched a brief video of a fitness expert talking about the importance of healthy behaviors. Finally, children received a special award for their participation in the activities. Recently, two parents have expressed concern that their children had participated in the individual tests despite the fact that they had not signed the consent form for their children to participate. Your task is to find out what this child experienced with this man.

4 | CODING

4.1 | Interviewer utterances

Audio recorded interviews were transcribed. Two coders reviewed the transcripts and assigned individual interviewer utterances to one of several categories based on Lamb et al.'s (1996) coding system and modified for use with the present sample.

Open-ended: Invited child to talk about an event with no cues from the interviewer (e.g., "Tell me more," "What else?").
Directive: Directed the child towards a particular topic and invited a brief response (e.g., "What was he wearing?" "What color was it?").
Option-posing: Provided child with two or more options (e.g., "Were you inside or outside?").
Yes/No: Required a "yes" or "no" response (e.g., "Did you go home right away?").
Suggestive: Utterance contained information not mentioned by the child or the interviewer led the child into a particular response (e.g., "You walked away, didn't you?").
Facilitator: Responsive device (e.g., "Okay", "Hmm hmm").

In addition to categorizing utterances, coders also coded utterances for the presence of 10 fictitious event components that were mentioned in the biased background information (e.g., try on a special suit). Each individual utterance could have contained more than one bias component (i.e., an interviewer could embed several bias components within a single utterance). The two coders coded 12 interview transcripts to achieve agreement in coding interviewer utterances, with kappa values of .72 (utterances) and .70 (bias components) indicating acceptable agreement. Disagreements were resolved through discussion.

4.2 | Children's reports

Coders recorded the presence or absence of 26 correct event components (e.g., jumping jacks, pretending to be a bird, ending with high-fives) in reports elicited by nonsuggestive questions. They also noted the presence/absence of bias components within the children's reports. Each coder provided a global impression of whether reports were consistent with having experienced the one-on-one visit to the "special room" with the male visitor to camp (yes/no; these latter ratings were agreed upon in 100% of cases).

For each suggestive question posed, coders recorded children's responses as one of three possible responses:

Correct denial: the child correctly denied that the suggestive detail took place.
Non-response: the child ignored the suggestive information presented by the interviewer.
Acquiesce: the child agreed with the interviewer that the incorrect detail took place.

Two coders again coded 12 interview transcripts to establish agreement in coding children's responses, with resulting kappas of .80 (presence/absence of event components) and .90 (children's responses to suggestive questions). Disagreements were resolved through discussion.

5 | RESULTS

5.1 | Preliminary analyses

The mean number of interviews conducted by each interviewer was 1.57 ($SD = .75$) in the neutral background condition and 2.06 ($SD = .90$) in the biased background condition, respectively, $t(36) = -1.83$, $p = .08$. For those interviewers who questioned more than one child ($n = 21$), we conducted preliminary 2 (neutral vs. biased background condition, between subjects) $\times$ 2 (first vs. last interview, within subjects) mixed-factor Analyses of Variance (ANOVAs) to explore whether the number of suggestive questions or the number of biasing details mentioned by the interviewers changed systematically from first to last interviews. No main effects or interactions involving interview (first vs. last) were significant. There were also no significant Pearson correlations between child age and the interviewers' use of the various prompt types (either the numbers or proportions of utterances representing each prompt type, Bonferroni adjusted, $ps > .01$). Therefore, we summarized each interviewer's questioning strategy by computing the proportion of questions representing each prompt type within interviews and then averaging across interviews conducted by the interviewer. Thus, interviewers

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TABLE 1 Mean frequencies and proportions (with standard deviations) of each prompt type across interview conditions

	Frequencies				Proportions			
Prompt type	Neutral interviewers		Biased interviewers		Neutral interviewers		Biased interviewers	
Open-ended	.79	(.89)	.48	(.69)	.04	(.05)	.04	(.06)
Facilitator	5.25	(5.80)	5.17	(7.41)	.22	(.15)	.19	(.10)
Directive	2.26	(2.01)	3.91	(3.51)	.13	(.08)	.16	(.11)
Option-Posing	1.29	(1.68)	.42	(.44)	.08	(.18)	.02	(.03)
Yes/No	9.44	(6.06)	8.60	(6.26)	.50	(.17)	.44	(.12)
Suggestive	.74	(2.19)	2.58	(2.53)	.02	(.05)	.14	(.13)

Note: Values are averages across 21 neutral and 17 biased interviewers.

were the subjects for analyses of interviewer behavior, with children nested within interviewers for analyses of the children's reports.

5.2 | How did untrained interviewers question children?

The number of interviewer utterances and the distribution of utterances across prompt types confirmed that our interviewers were engaged in the task and behaved similarly to interviewers in prior studies. On average, our interviewers delivered 20.39 prompts per interview ($SD = 14.12$, range = 6 to 78, and median = 17), distributing utterances across the various prompts as reported in Table 1. This pattern of prompt usage was similar to that of professional interviewers who are not protocol trained. For example, only 4% of our interviewers' prompts were open-ended, compared to 8% of prompts by youth investigators in the nonprotocol condition of a study by Orbach et al. (2000). Our biased interviewers relied more often on suggestive prompts (14% of utterances) than our neutral interviewers did (2%), but the average across conditions (8%) was also similar to the percentage reported in Orbach et al. (10%). As shown in the bottom three rows of Table 1, a total of 60% of the questions delivered by our interviewers in each of the neutral and biased conditions were option-posing, yes/no, or suggestive, which are the least favored formats according to interviewing guidelines (e.g., Lamb et al., 2007; Poole & Dickinson, 2013).

To compare how interviewers in the neutral and biased background conditions questioned children, we conducted 5 *t*-tests, one for each prompt type, as a proportion of all prompts, excluding facilitators (open-ended, directive, option-posing, yes/no, and suggestive). Facilitators were excluded from these analyses because, particularly in untrained interviewers, they are not a deliberate prompt designed to elicit information. There were no differences between interviewers in the neutral and biased conditions in the use of three prompt types: open-ended [$t(66) = -0.38$, $p = .71$, 95%CI: −0.05-0.03], directive [$t(66) = 0.64$, $p = .53$, 95%CI: −0.04-0.09], and option-posing [$t(66) = -1.51$, $p = .14$, 95%CI: 0.10–0.01] questions. In contrast, however, interviewers in the biased condition were more likely to ask suggestive questions than those in the neutral condition [$t(66) = 5.21$, $p < .001$, 95%CI: 0.10–0.23], delivering an average of 2.58 suggestive questions per interview compared to .74 by interviewers in the neutral condition. Moreover, interviewers in the neutral condition were more likely to ask yes/no questions than interviewers in the biased condition [$t(66) = -3.07$, $p = .003$, and 95%CI: −0.22 to −0.05].

Not all interviewers in the biased knowledge condition incorporated biasing information into interviews, but 58.8% of them averaged at least one biasing detail per interview (range 0–7). A minority of interviewers in the biased condition were especially suggestive (35.3%), with 2 delivering an average of 3 pieces of biasing information per interview, 2 delivering 4, and 2 delivering 7. In contrast, only two interviewers in the neutral condition (9.5%) ever mentioned information that happened to be included in the biasing instructions. The difference between conditions in the mean number of biasing details mentioned was significant ($M_{neutral} = .06$ vs. $M_{biased} = 2.03$, $SDs = .23$ and 2.32), [$t(16.25) = -3.49$, $p = .003$, 95%CI: 1.19–2.81].

5.3 | How did children respond to unbiased and biased interviewers?

We analyzed children's responses using a mixed model procedure that accounted for the nesting of children within interviewers by including a random intercept (packages `lme4`, Bates et al., 2015; `lmerTest`, Kuznetsova et al., 2017; R Core Team, 2020). Given that power was limited by our modest sample sizes (38 interviewers and 68 children), we trimmed nonsignificant interaction terms in order to test for main effects of interview condition.

5.4 | Accurate reports

Interviewers could not always orient children to the appropriate event (i.e., elicit at least some accurate information), and this problem was somewhat greater in the neutral condition: 51.5% of children in the neutral condition described at least one target event component compared to 82.9% in the biased condition, $OR = 14.59$, [0.99, 215.01], $z = -1.95$, $p = .051$ (binomial model with children nested in

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interviewers). There was not a significant difference across conditions for the mean number of target event components described ($M_{neutral} = 2.36$ vs. $M_{biased} = 3.17$, $SDs = 3.07$ and 3.43, respectively), $p = .377$. Age did not predict the likelihood of latching onto the topic, $p = .245$, but increasing age was associated with more complete reports, $b = 0.88$, [0.19, 1.56], $t = 2.60$, and $p = .011$. On average, the children described 2.78 ($SD = 3.26$) correct target event components per interview (range = 0 to 12, out of 26 possible components).

5.5 | Inaccurate reports

The misleading information in questions consisted of interviewer-generated suggestions and, for interviewers in the biased knowledge condition, suggestions contained in the biasing narratives they had read. The children were more likely to reject than to accept this misleading information, acquiescing on average to only 7.9% ($SD = .03$) of the questions that contained erroneous suggestions. However, the frequency of delivering misleading questions and the tendency to acquiesce was not uniform across interviews. Collapsing over conditions, our interviewers delivered one or more questions suggesting false information to 36 of the 68 children, with 7 of the 36 children (19.4%) acquiescing during the course of their interviews. Because false acquiescence occurred infrequently, we categorized each child's testimony as containing a false acquiescence (if the interviewer delivered a misleading question that the child accepted—1 child in the neutral condition and 6 children in the biased condition, for a total of 7 children who falsely acquiesced) or not (if the interviewer was non-suggestive or the child rejected suggestions). A binomial mixed-model failed to detect a decline with age in the infiltration of suggestions into reports, $OR = 1.33$, [0.76, 2.35], $z = -0.29$, and $p = .321$. Further, compared to the neutral condition, more children in the biased condition falsely acquiesced to at least one suggestion during the course of the interview, $OR = 3.75$, [0.80, 17.60], $z = -1.68$, and $p = .093$, but the difference was not significant.

We were especially interested in the extent to which the erroneous details embedded in the biasing information infiltrated children's reports. Twenty-four children received prompts that contained biasing details and 5 of these children—all interviewed by different adults in the biased background condition—acquiesced to at least one: 2 6-year-olds, 2 7-year-olds, and 1 8-year-old (representing 14.3% of children in the biased condition). The lack of acquiescence to bias in the neutral condition prevented model convergence with the mixed-model approach. Therefore, we compared the mean number of biasing details that interviewers in the two conditions were responsible for interjecting into testimonies (the number of biasing details elicited by each interviewer divided by the number of interviews conducted). The difference between no biasing details in the neutral condition and an average of .35 ($SD = .77$) per interviewer in the biased background condition was not significant, but there was evidence for the passage of literal information from biasing material to children's responses, $t(16) = -1.90$, $p = .074$ (unequal variance).

Finally, we were interested in whether coders believed that children had been removed from their groups and subjected to individual physical fitness testing. Four children, 1 in the neutral condition and 3 in the biased background condition, responded in ways suggesting exposure to individual testing (thus potentially leading to a misinterpretation of the event as a whole). Given the small number of such children (5.9% of the total sample), we did not subject this difference to significance testing. We did observe, however, that the child in the neutral condition whose testimony suggested individual testing was exposed to an unusually directive interviewer who asked 30 yes–no questions and 10 suggestive questions.

6 | DISCUSSION

Consistent with our hypotheses, pre-interview biasing information increased the use of suggestive questions by untrained lay adult interviewers (relative to neutral interviewers) and led the majority of them to embed false information into one or more prompts. Further, although the misinformation provided to these "biased" interviewers did not significantly impact the amount of correct information they elicited, erroneous information did infiltrate the testimonies of a subset of children. These results expand upon existing studies by showing that among untrained interviewers (a) bias increases suggestive interviewing even when adults are conversing with school-aged children; and (b) school-aged children, though typically more resistant to isolated suggestions than younger children (see Bruck & Ceci, 1999), are not immune to the negative effects of this questioning style.

It is not our intent to imply that a single conversation between an adult who is exploring a misguided hunch and a school-aged child would usually be sufficient to generate credible but false disclosures of significant events, such as the occurrence of sexual abuse, the identity of perpetrators in domestic violence cases, or whether fires were intentionally set. Beyond the preschool years, disturbing false reports are most often associated with factors that we did not reproduce with our paradigm, such as an ongoing atmosphere of concern about inappropriate activity and long delays between target events and disclosure conversations (e.g., London et al., 2009; Poole et al., 2014). Moreover, our interviewers did not engage in the type of follow-up questioning that might have clarified the true state of affairs when children did accept a suggestion. What our results do show, however, is that even among school-aged children, there is a conduit whereby adults' misinformation and/or misconceptions can pass into the children's testimony. The rate of false acquiescence was relatively low, but it is important to note that our particular experimental design—with its much shorter delay to recall than is typical in a forensic investigation – most likely underestimates the impact of prior knowledge on the children's reports in the field.

Awareness of this information transmission dynamic could help triers of fact understand why eyewitness accounts sometimes contain details that align more closely with the adults' beliefs than with evidence that has come to light. In jurisdictions with adversarial legal sys-

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tems, where the defense is eager to hone in on minor errors in children's reports, our results provide a rationale for considering the overall plausibility of children's accounts rather than placing undue weight on detail errors that often appear in accounts of experienced events (see Fisher et al., 2009), especially when these errors can be traced to previous conversations.

Our finding that untrained adult interviewers tend to rely on undesirable questions is consistent with prior work with professional interviewing populations. For example, extensive use of yes/no questions has also been observed in transcripts of front-line interviews (e.g., Price & Roberts, 2011; Warren et al., 1996), and this tendency is exacerbated when less-skilled interviewers are given biasing information (Powell et al., 2012). As was true in many analyses of investigative interviews, conversations in the present study were certainly not child-led and relied far more heavily on focused and suggestive questions than what would be recommended by best practice interviewing research. The untrained interviewers use of these kinds of questions, combined with the observation that four children in the present study (including one in the neutral condition) gave coders the impression that individual testing had taken place, highlight the importance of knowing just *how* children were interviewed when analyzing their reports. Indeed, knowledge about the way in which children have been interviewed should trump information about interviewer bias because even though bias increases the odds that a child is exposed to suggestions, bias, by itself, does not always result in a suggestive interview.

When cases progress to formal investigative interviews, some researchers have suggested blinding interviewers to detailed background information to ensure that potentially inaccurate information does not leak into interviewer questions. (For a discussion of minimal alleged offense interviewing, see Smith & Milne, 2011, but also see Rivard & Schreiber Compo, 2017 for a discussion of interviewer concerns.) An alternative approach is to provide interviewers with as much case information as possible, with explicit acknowledgement that the information may be inaccurate, thereby promoting active hypothesis-testing (Poole & Lamb, 1998). Cantlon et al. (1996) compared field data from informed interviewing with a hybrid approach that was adopted as policy in Idaho (USA) after an important legal decision. Under the new policy, interviewers began conversations with minimal information but used a break in interviews to obtain additional information and questions from investigative teams. Rates of sexual abuse disclosure increased after the hybrid approach became standard practice, which alleviated concern that interviewers would struggle to raise target topics if they began interviews without case details.

Further evidence that "less is sometimes more" comes from a study in which adults' ability to accurately interpret the children's testimony was enhanced by naiveté about the allegation (Sutherland et al., 1996). But given serious concerns about the limitations of uninformed practice (e.g., National Center for Prosecution of Child Abuse, the American Prosecutor's Research Institute, and the National District Attorney's Association, 1993), there is a need for additional studies to help policy-makers balance the need for objectivity with the benefits associated with informed case exploration.

6.1 | Limitations and future directions

Although we believe that our findings have implications for understanding the interviewing of children in forensic contexts, we must note several limitations of our investigation. First, carrying out this study was logistically challenging in part because it was difficult to recruit a large sample of interviewers, and this, in turn limited our options for handling the data. Second, the interviewers we recruited were on average younger than the adults in abuse cases who may be the recipients of information about children's well-being. Finally, as with all laboratory research, the children's experience of the target event did not involve the level of emotional arousal that one might expect in a forensic setting. Although the impact of emotion on remembering is complex (Stein et al., 1997), it is reasonable to expect that the stakes and interest in reporting accuracy might be reduced in a laboratory setting. In the future work, extending this paradigm to the children's experiences of stressful medical procedures would increase confidence that these results will extend to applied settings.

7 | CONCLUSION

Our untrained interviewers questioned children in one of the primary ways researchers warn against, with leading and closed-ended questions comprising the bulk of their prompts. Furthermore, this problematic questioning style was aggravated by the receipt of inaccurate background information (i.e., biasing information). For those who conduct case analyses, these data provide justification for considering the background information available to the unskilled interviewers who formed the chain of conversation that occurred between the first alleged disclosure and formal case investigation. Information obtained in an initial conversation, which itself is used to create the background information provided to the subsequent interviewers, can set the stage for a cycle of inaccuracy.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

Data are openly available on the Open Science Framework at: osf.io/6nkag

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ENDNOTES

[1] Although we had hoped to have each interviewer talk with only one child, we recruited more children for the study than initially anticipated, and were selective in the adults we chose to interview the children. (Because we were not training these adults to use a specific interview protocol, we only recruited interviewers who were known to us or referred by colleagues.)

[2] Several interviewers had recently completed their undergraduate degrees, and one father of a current student served as an interviewer.

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