

Repetition of contaminating question types when children and youths with intellectual disabilities are interviewed

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Abstract

Background The present study examined the effects of repeating questions in interviews investigating the possible sexual abuse of children and youths who had a variety of intellectual disabilities. We predicted that the repetition of option-posing and suggestive questions would lead the suspected victims to change their responses, making it difficult to understand what actually happened. Inconsistency can be a key factor when assessing the reliability of witnesses.

Materials Case files and transcripts of investigative interviews with 33 children and youths who had a variety of intellectual disabilities were obtained from prosecutors in Sweden. The interviews involved 25 females and 9 males whose chronological ages were between 5.4 and 23.7 years when interviewed ($M = 13.2$ years).

Results Six per cent of the questions were repeated at least once. The repetition of focused questions raised doubts about the reports because the interviewees changed their answers 40% of the time.

Conclusions Regardless of the witnesses' abilities, it is important to obtain reports that are as accurate

and complete as possible in investigative interviews. Because this was a field study, we did not know which responses were accurate, but repetitions of potentially contaminating questions frequently led the interviewees to contradict their earlier answers. This means that the interviewers' behaviour diminished the usefulness of the witnesses' testimony.

Keywords inconsistent reports, investigative interviews, learning disabilities, repeated focused questions, sexual abuse

Introduction

Children and youths with intellectual disabilities (CYIDs) are more likely than typically developing (TD) peers to become victims of abuse (e.g. Sullivan & Knutson 2000). Despite a paucity of research on the performance of CYIDs in investigative interviews, they are nonetheless viewed as less reliable informants than their normally developing peers (Henry & Gudjonsson 2007). It is thought that CYIDs have more limited memory skills and are more suggestible than normally developing peers (Gudjonsson & Henry 2003; Jordan 2008) so they may change their responses when questions are repeated across interviews (Henry & Gudjonsson 2003). Those who also have autistic spectrum

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disorders (ASDs) may have special difficulty understanding questions about other peoples' knowledge and beliefs (Trevvarthen 2000), and all CYIDs may face communicative barriers when recounting their experiences, increasing the risk that they may repeatedly be asked the same questions by investigators eager to learn more about the alleged incidents. No researchers have explored the performance of CYIDs when questions that are potentially contaminating are repeated within forensic interviews. Thus, this was the focus on the present study.

The informativeness of CYIDs is generally comparable with that of mental age-matched TD peers (Zigler 1969; Fowler 1998; Iarocci & Burack 1998; Henry & Gudjonsson 1999; Michel *et al.* 2000) but severity of disability is often influential as well. Children with mild intellectual disabilities report less information in response to open-ended free-recall questions but are as likely as TD of the same age to provide responses to these type of prompts (Henry & Gudjonsson 1999, 2003) and to resist misleading questions (Henry & Gudjonsson 2003). However, children with moderate disabilities provide less information than both TD peers and children with mild intellectual disabilities. They are also more suggestible although their responses to free recall questions tend to be accurate (Henry & Gudjonsson 2003).

Little is known about the way children with ASDs perform as eyewitnesses but they may have problems describing their emotions and memories when being interviewed (Jordan 2002, 2008). Verbal children with ASDs may be unable to complete answers when they are interrupted. They may be able to provide detailed information about concrete experiences yet be unable to answer even simple questions about the same event (Gillberg 1995). Their capacity to search memory is limited (Jordan & Powell 1995) and they may lack the capacity to combine memories into coherent whole reports (Tager-Flusberg 1991). They may be unable to abstract gist memories (Jordan 2008) and their ability to recall the source of their memories may also be impaired (Bowler *et al.* 2004). Because of their problems with receptive and pragmatic language, they may use words suggested by others as clues to what they have failed to understand (Jordan 2008).

In sum, CYIDs (including those with ASDs) may have problems remembering the events in question, and may acquiesce to suggestions, have difficulty communicating their experiences, and thus be unable to provide coherent and detailed reports of their experiences (Cederborg & Lamb 2006). When interviewing alleged witnesses who have a variety of learning disabilities, police officers should thus give priority to strategies that will help possible victims provide the most accurate and complete information they can (Home Office *et al.* 2002; Jones 2003). We do not know, however, how often forensic interviewers ask repeated questions when the alleged victims may have difficulty describing their experiences.

The limited research available suggests that many forensic interviews with TD children contain repeated questions (Krähenbühl & Blades 2006) and that up to 20% of the questions posed in forensic interviews are repeated (Krähenbühl *et al.* 2005 cited in Krähenbühl & Blades 2006). The effects of repeated questioning have been the subject of many experimental studies with TD children (for reviews see Fivush & Schwarzmüller 1995; Poole & White 1995; Lyon 2002). Researchers have reported that children often change their responses to repeated questions, including yes/no questions (e.g. Poole & White 1991, 1993; Memon & Vartoukian 1996; Brady *et al.* 1999; Howie *et al.* 2004; Krähenbühl & Blades 2006), and, because they change previously correct responses to incorrect responses, and vice versa, their reliability as informants is open to question. In real forensic interviews, inconsistent responses often follow repeated questions too (Ceci & Bruck 1995; Lamb & Fauchier 2001; Orbach & Lamb 2001; Krähenbühl 2007).

Children are believed to change their answers when questions are repeated for motivational/social reasons (Fivush & Schwarzmüller 1995; Lyon 2002; Howie *et al.* 2004). When questions are repeated, for example, TD children may think that the interviewers were not satisfied with their previous answers and thus change their responses to please the interviewers (Ceci & Bruck 1995; Poole & White 1995; Wilson & Powell 2001; Home Office 2002; Lyon 2002). In legal settings, changing answers to direct questions is likely to detract severely from witness credibility especially when later answers contradict earlier ones (Poole & White

1995; Poole & Lamb 1998; Brock *et al.* 1999; Myers *et al.* 1999; Semmler & Brewer 2002; Cederborg & Lamb 2006; Gilbert & Fisher 2006) which may imply that such reports will be of less evidentiary use.

Researchers have yet to study how CYIDs respond to repeated questions within investigative interviews, especially when they are asked option-posing (OP) and suggestive questions that are known to be potential sources of contamination (see Lamb *et al.* 2007, for a review). We thus wanted to explore the effects of repeating these types of questions in investigative interviews with children who may already have memory and communicative difficulties. Accordingly, the purpose of this exploratory study was to understand (1) the extent to which CYIDs are asked repeated OP and suggestive questions; and (2) their responses to these risky OP and suggestive repeated questions. We predicted that repeated OP and suggestive questions within their first investigative interviews may lead CYIDs to change their responses.

A quantitative analysis was first performed to identify all the interviewers' OP and suggestive questions. Second, these repeated prompts were qualitatively examined. In the experimental literature, researchers typically repeat questions verbatim, but we expected that, in forensic contexts, many questions might not be 'identical' but rather be pragmatically (or logically) similar enough to be considered repeated questions. Third, we examined the responses to all repeated OP and suggestive questions.

Method

This study explored a sample of real-life forensic interviews with CYIDs; there was no comparison group of interviews involving people who did not have such disabilities. We examined the first formal investigative interviews with 33 CYIDs. Because one woman made allegations about two different suspects in separate interviews, there were 34 interviews included in the sample. The sample was selected from an archive comprising 69 criminal cases in Sweden solely because these cases involved CYIDs [developmental disorders (DDs) and ASDs] and the interviews with police officers had been

recorded. Prosecutors from all 39 Swedish districts were asked to send as much information as possible about all recent cases in which the alleged victims had any kind of learning disability. Disability is not systematically recorded in Swedish case files, so case selection for the larger project depended on the prosecutors' and police officers' memories and the total sample was therefore selective rather than representative.

In order to gain insight into each witness's possible reporting capabilities, circumstances and experiences, we conducted an inductive review of all the documents (the transcribed interviews, documents from the police investigations and the court files) in each case. Information about the different participants' test results and capacities was seldom obtained formally during the investigation and the courts were often given this information third-hand (Cederborg & Lamb 2006). As a result, the sample we studied was both heterogeneous and described with inadequate precision. This means that this study involved children and youths with a diverse array of disabilities.

The data

In Sweden, the accepted term for developmental difficulties is DD. In accordance with the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 1994), three different groups are distinguished: mild DD (IQ of 50–55 to 70), moderate DD (IQ of 35–40 up to 55), and severe DD (IQ below 35–40). From the limited information available, we discerned that 23 of the 33 children were developmentally delayed; nine were assessed with mild DD (one youth was involved in two different cases) and 14 with unspecified degrees of DD. Four others were reported to have ASDs (two with Asperger syndrome). Seven had been diagnosed with DD (two mild and five unspecified) combined with ASDs (one Asperger).

The interviews involved 25 females and 9 males whose chronological ages were between 5.3 and 19.1 years ($M = 12.1$ years) when the last incident of abuse was believed to have occurred, and they were between 5.4 and 23.7 years when subsequently interviewed ($M = 13.2$ years). Thirty-two of the participants were thought to be exposed to abuse for the first time when their chronological ages were

Table 1 Summary of the participants' experiences, diagnoses and relationship to suspects in 33 cases (34 interviews)

Type of crime	Relation to perpetrator(s)					
	Sexual abuse	Physical abuse	Relative	Immediate family	Familiar	Unfamiliar
Diagnosis						
Developmental disorder	23	1*	1	8†	9	6
Developmental disorder/autism spectrum disorder	5	2		3	4	
Autism spectrum disorder	3	1		3		1
Total	31	4	1	14	13	7

There were 33 witnesses and 34 interviewers.

* One victim reported both sexual and physical abuse.

† One victim mentioned two immediate family members as perpetrators and so was interviewed twice.

under 18 years. One case involved a girl older than 18 years of age described as having severe developmental delays. Because of the participants' intellectual disabilities and presumed memory limitations they have been referred to as children and youths throughout this manuscript.

The mean delay between last incident of alleged abuse and the interview was 184.6 days with a variation of between 1 and 1865 days. Table 1 shows the types of crimes that the children and youths were interviewed about, their diagnoses and the relationship between suspects and interviewees.

Most of the children and youths were suspected victims of sexual abuse. Most of the suspected perpetrators were well known or familiar to the children and youths.

Quantitative analysis

The interviews were first transcribed from video recordings and checked to ensure their completeness and accuracy. A coder then reviewed the transcripts and identified each interviewer utterance that was OP or suggestive, using the categories developed by Lamb *et al.* (1996) and Lamb *et al.* (2008). For the purpose of these ratings, we did not distinguish between questions and statements.

Option-posing utterances were those that focused the witness's attention on details or aspects of the alleged incident that the witness has not previously mentioned, asking the witness to affirm, negate, or select an investigator-given option using recognition memory processes. This did not imply that a par-

ticular response was expected. For example, interviewers might ask 'Were the clothes red or green?' or 'Was the shirt red?'.

Suggestive utterances were stated in such a way that the interviewer strongly communicated what response was expected (e.g. 'He forced you to do that, didn't he?') or they assumed details that had not been revealed by the witness (e.g. Witness: 'We laid on the sofa.' Interviewer: 'He laid on you or you laid on him?').

In this paper, OP and suggestive prompts are together called 'focused prompts'. One researcher coded all 34 interviews and a second researcher independently coded 10 of these interviews. Interrater reliability was 95%. Differences were resolved through discussion.

Qualitative analysis

The quality of the repeated OP and suggestive prompts was then explored. We categorised all repetitions of the focused questions regardless of how many times they were repeated in the same interview. Repetitions were categorised as either exact repetitions (e.g. first and second time repeated: 'Was it the sofa you laid on?') or similar repetitions (repetition with different words or different word order, e.g. first time 'You laid on the sofa, didn't you?' and second time 'Did you lie on the sofa?').

All substantial event information elicited using OP and suggestive prompts was categorised using three different combined response categories (agreement, disagreement and other):

Agreement: The child accepted an option proposed or detail suggested by the investigator and may have elaborated upon it.

Disagreement: The child did not accept an option proposed or detail suggested by the investigator and may have proposed an alternative option.

Other: The child gave no answer or responded 'I don't know' or 'I don't remember'.

The categorization of prompts and responses was conducted by two coders, and inter-rater reliability was 93%. Differences were resolved through discussion.

Ethical considerations

All case material was given to the first author by the prosecutors and police officers in accordance with the provisions of Sweden's Official Secrets Act. At the time of data collection, Swedish researchers were not required to have their projects reviewed by human subjects' protection committees, but the present project was reviewed and approved by the official at Linköping University, Sweden, responsible for monitoring research being conducted by University staff. This official ensured that the project was designed and implemented in accordance with the Helsinki declaration (1975) regarding research on humans.

Results

In total, 49% (2858) of the 5764 questions asked in the substantial phase were focused prompts (32% option posing and 17% suggestive) and 29 (85%) of the 34 interviews contained at least one repeated question. In total, 260 (9%) of the 2858 focused questions (224 OP and 36 suggestive prompts) were repetitions but 86 out of the 260 questions were repeated more than once (up to seven times), with an average of 1.49 times ($SD = 1.82$). This means that the interviewers repeated 174 (6%) out of 2858 focused questions (158 OP and 16 suggestive prompts). The development of responses to all 260 repetitions is shown in Table 2.

Sixty percent (157) of the responses to these 260 repeated focused questions remained the same and 40% (103) of the responses changed. A chi-squared test confirmed that responses to repeated questions changed significantly from responses given the first time the questions were asked, [$\chi^2(1) = 41.3$, $P < 0.001$].

When the original and repeated questions were identical, 42% (90 out of 260) of the responses remained the same, but when the questions were similar rather than identical repetitions, 34% (170 out of 260) of the responses remained the same. The difference between these proportions was not significant, however, indicating that the type of repetition did not affect the likelihood that responses

First response	Response to repetition			
	Agreeing <i>n</i> (%)	Disagreeing <i>n</i> (%)	Other <i>n</i> (%)	Sum <i>n</i> (%)
Agreeing	75 (29)	34 (13)	7 (3)	116 (45)
Disagreeing	35 (13)	72 (28)	17 (7)	124 (48)
Other	5 (2)	5 (2)	10 (4)	20 (8)
Sum	115 (44)	111 (43)	34 (13)	260 (100)

Table 2 The development of the first and repeated 260 responses

Figures in bold type indicate that the later responses were the same as the first responses (60%; 157 times). Figures in regular types indicate that the answers were changed (40%; 103 times).

Number of repetitions	Changed answer n (%)	Total number of instances n (%)
1st repetition	104 (60)	174 (100)
2nd repetition	28 (60)	47 (100)
3rd repetition	15 (79)	19 (100)
4th or higher repetition	18 (90)	20 (100)
Total	165 (63)	260 (100)

Table 3 Changes in responses depending on the number of repetitions

First response	Agreeing n (%)	Disagreeing n (%)	Other n (%)	Sum n (%)
Agreeing	51 (29)	24 (14)	5 (3)	80 (46)
Disagreeing	21 (12)	49 (28)	9 (5)	79 (45)
Other	1 (1)	5 (3)	9 (5)	15 (9)
Sum	73 (42)	78 (45)	23 (13)	174 (100)

Table 4 Changes in the combined responses when questions were repeated for the first time

Figures in bold type indicate that the answers were unchanged (63%; 109 times in sum).

Figures in regular type indicate that the answers were changed (37%; 65 times in sum).

would change. Subsequent analyses focused on the number of times that questions were repeated (Table 3). Responses were more likely to change after the third repetition than after the first and second repetition [$\chi^2(1) = 8.38$, $P < 0.01$]. Similarly, responses were more likely to change after the fourth or later repetition than after the third [$\chi^2(1) = 8.85$, $P < 0.01$]. Clearly, the more times questions were repeated, the more likely witnesses were to change their responses, although even the first repetition led witnesses to change their responses quite often (104 out of 174; 60%).

We then examined the degree to which responses changed the first time that these 174 questions were asked again (Table 4). Sixty-five (37%) of the responses changed completely, with 30% (24) of the agreements becoming disagreements and 27% (21) of the disagreements becoming agreements.

Discussion

In this study we asked how eyewitnesses with a variety of learning disabilities (ranging from unspecified DDs to ASDs) responded to repeated focused prompts within an initial forensic interview. Focused questions were not frequently repeated but these possibly contaminating questions were often used when trying to elicit information from these suspected victims. We predicted that repeated focused questions might lead CYIDs to change their responses and found that responses were indeed changed 40% of the time. The likelihood of change did not vary depending on whether or not the questions were repeated identically, but major changes occurred even the first time focused questions were repeated and responses were more likely to change the more times questions were repeated.

Experimental research similarly shows that the repetition of questions is associated with changed responses (Brady *et al.* 1999; Krähenbühl & Blades 2006), although similar changes do not occur when open-questions are asked (Poole & White 1991). In experiments, repetitions are often grouped together whereas repeated questions in real life forensic investigations tend to be scattered throughout the interview, repeated in both similar and identical formats (Ceci & Bruck 1995; Krähenbühl & Blades 2006). In forensic interviews with TD children, inconsistent responses often follow focused questioning (Lamb & Fauchier 2001; Orbach & Lamb 2001) and this study indicates that the police officers' use of repeated focused questions in interviews with CYIDs affected the consistency of responding as well. Such inconsistency makes it difficult to understand what really happened and indeed may lead investigators to question credibility (Cederborg & Lamb 2006). Because this was a field study, accuracy could not be determined, of course, but we do know that at least one of the responses to these repeated questions was incorrect.

It is problematic that CYIDs may be encouraged to change answers within investigative interviews, especially because these witnesses may have greater difficulty remembering and communicating their experiences. We do not know why these suspected victims changed their responses: they may not have known the correct answer, not have remembered the requested detail, or not have understood the questions. Whatever the reason, these children and youths were not given the opportunity to report reliably because they were asked potentially contaminating questions repeatedly.

The quality of police interviews is extremely important in the Swedish justice system because children and youths (depending on maturity) usually do not have to participate in court proceedings. Instead, prosecutors refer to videotaped police interviews with suspected victims (Sutorius & Kaldal 2003). If the interviews are not of a high standard, therefore, it is likely that the suspected victims' reports will be undervalued. Regardless of eyewitnesses' communicative abilities, police officers should give priority to interview strategies that allow them to obtain the most accurate and complete information (Cederborg & Lamb 2008a; Lamb *et al.* 2008). We know from previous research

that people who have intellectual and mental disabilities are less accurate than TD peers when focused questions are asked (Henry & Gudjonsson 2003; Kebbell *et al.* 2004; McCrory *et al.* 2007). People with intellectual disabilities are also more likely than those without such disabilities to acquiesce to OP questions (Clare & Gudjonsson 1993) and CYIDs are more suggestible than normally developing peers (Gudjonsson & Henry 2003; Jordan 2008). As a result, interviewers should start with open-ended questions and then proceed to more specific questions as needed (Gordon & Schroeder 1995; Poole & Lamb 1998; McCrory *et al.* 2007; Lamb *et al.* 2008). Open questions prompt respondents to recall information from memory and do not specify the contents of the memories to be retrieved. They thus elicit richer and more accurate reports than do more focused prompts because the latter often require that respondents relate to one or more of the options suggested by the interviewers, thereby constraining or shaping their responses (Dale *et al.* 1978; Dent & Stephenson 1979; Oates & Shrimpton 1991; Hutcheson *et al.* 1995; Lamb *et al.* 1996, 2007; Orbach & Lamb 2000; Lamb & Fauchier 2001). In this study, the Swedish police officers, like those who interviewed children in previous studies (Cederborg *et al.* 2001; Cederborg & Lamb 2008a,b), did not follow recommendations to ask open-ended questions, nor did they successfully avoid repetitions of potentially contaminating questions. The effects of repeating OP and suggestive questions may vary depending on the severity of disability, as well as the age and maturity of the interviewees, making it likely that the interviewers' behaviour had especially negative effects in these interviews.

Police officers need to recognise that people with a variety of learning disabilities have more limited memory capacities than their TD peers (Gudjonsson & Henry 2003; Jordan 2008) and that focused questions encourage interviewees with intellectual disabilities to respond even when they do not know the answer, leading them to respond inaccurately (Clare & Gudjonsson 1993; Perlman *et al.* 1994; Gudjonsson & Clare 1995; Kebbell & Wagstaff 1997; Kebbell & Hatton 1999; Ericson 2000). Verbal children with ASDs may also respond inaccurately when not being carefully interviewed because they cannot abstract gist memories and have difficulty

accessing and controlling memory retrieval (Bowler *et al.* 2004; Jordan 2008). Suggestibility increases when people have reason to mistrust their own memories (Schacter 2003), so people with intellectual disabilities may have learnt to rely on others when they fail to remember or do not understand the questions asked. Likewise, people with ASDs may not integrate different aspects of their event memories (Jordan 2008), becoming uncertain when questions involve repeated suggestions. CYIDs are vulnerable witnesses in need of specialist interviewing skills to ensure that they provide reliable reports (Jones 2003). Our study showed that eye-witnesses with learning disabilities may change their answers dramatically when focused questions are repeated. Therefore, police officers should be specifically trained not only to minimise the use of focused questions but also to avoid repeating such potentially contaminating types of questions.

The generalisation of our findings is limited by uncertainties about specific diagnoses, the large age range, and the fact that we do not know which of the respondents' answers were accurate. The heterogeneity of the sample may also have reduced the power of the statistical tests because we combined those diagnosed with ASDs with those who had other intellectual disabilities. In addition, the sample was selective rather than representative. That said, few researchers have investigated how children will respond to repeated focused questions in the course of forensic interviews. The present findings also underline the need for further laboratory studies in which the necessary controls can be implemented. There is e.g. a need for laboratory studies involving children and youths with specific diagnoses in which the accuracy of responses to repeated focused questions can be assessed. We also need to know more about the ways in which responses vary when the wording and format of repeated questions vary.

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