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'Where were your clothes?' Eliciting descriptions of clothing placement from children alleging sexual abuse in criminal trials and forensic interviews

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Abstract

Purpose—The present study examined how children alleging sexual abuse are asked about clothing placement during abusive episodes, both in criminal trials and forensic interviews. The placement of clothing is of great importance, because it facilitates distinguishing abusive touch from non-abusive touch, as well as the severity of abuse when the touching is in fact sexual. If clothing has not been removed, then sexual abuse appears less likely and certain types of sexual contact are physically impossible (or at least highly improbable).

Methods—We examined how trial attorneys (n = 142) and forensic interviewers in investigative interviews (n = 155) questioned 5- 12-year-olds about the location of clothing during alleged sexual abuse. To do so, we identified all question-answer pairs that included references to clothing placement, and coded for the clothing item mentioned, whether the interviewer elicited information about clothing placement or the child spontaneously provided such information, question-type, and response-type.

Results—Discussions about clothing placement were commonplace in both settings, particularly in court. Fewer than one in five question-answer pairs about clothing placement were spontaneous mentions by children; the questioner elicited most discussions. When interviewers asked wh-questions rather than yes/no and forced-choice questions, children provided more elaboration, more detailed clothing information, and were over six times more likely to describe clothing placement in a fashion that could not be captured by a single preposition (e.g., neither on nor off).

Conclusions—The findings suggest that descriptions of clothing placement are subject to serious misinterpretation when closed-ended questions are asked.

In cases of alleged child sexual abuse, descriptions of clothing placement are often critical. If the child describes some sort of genital contact, whether clothing was removed or displaced facilitates discriminating between sexually motivated touching and incidental, accidental, or appropriate affectionate touching, as well as the severity of the touching if it was in fact sexually motivated. When touching is genital, whether it is skin-to-skin increases

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the likelihood that the touching is abusive. Furthermore, the extent to which the child is capable of providing elaborative details regarding the alleged abuse is a means by which his or her credibility is assessed, and clothing displacement is a central aspect of the abusive event. If the child is incapable of providing details, if the details are inconsistent within and across interviews, or if the details appear logically inconsistent with the alleged sexual acts, the child is less likely to be believed, and allegations are less likely to be substantiated. This study examines how attorneys and forensic interviewers question children about the location of clothing during abusive episodes in cases of alleged child sexual abuse. The purpose is to assess how often clothing placement is discussed, what type of questioning is used, and whether and when children can provide clear descriptions about clothing placement. We were particularly interested in whether closed-ended questions would increase the potential for misinterpretation of children's reports.

The potential difficulties are illustrated in State v. Emmett (1992), a case from the Supreme Court of Utah. The Court reversed a sexual abuse conviction against the defendant, who was charged with sodomizing his five-year-old son. The Court noted that "[t]he only direct evidence of sodomy came from the testimony of the alleged victim, who stated that his father had 'put his front private in my back private'" (p. 783). In discussing why procedural errors in the case were not harmless, and justified reversal, the Court emphasized its doubts about the strength of the sodomy allegation based on the "somewhat conflicting and confused testimony" of the child (p. 786). "The child was not certain whether he was clothed during the incident, and he testified that he thought his father was clothed" (p. 786).

Unfortunately, the Court did not report how the child was asked about clothing. Research examining how children are questioned about sexual abuse in court has shown that yes/no questions predominate (Andrews, Lamb & Lyon, 2015; Hanna, Davies, Crothers, & Henderson, 2012; Klemfuss, Quas & Lyon, 2014; Stolzenberg & Lyon, 2014). Hence, it is likely that the child in *Emmett* was asked yes/no questions about his and the defendant's clothing placement (e.g., "Were your/his clothes on?" or "Were your/his clothes off"?).

The problem with yes/no questions about clothing placement is that they are likely to elicit underinformative and therefore misleading answers from children. If clothes are partially removed, then one could say that they are both on and off. There are several reasons, however, to suspect that children will not respond to yes/no questions in such an elaborate fashion. First, research has found that when presented with binary judgment tasks, children under seven will accept statements that are logically true but pragmatically misleading (Katsos & Bishop, 2011). For example, if presented with a scenario in which a mouse ate all the carrots, children will accept as correct a statement that the mouse ate "some" of the carrots. Analogously, if asked about a situation in which clothes are partially on and partially off, children might endorse statements that the clothes were "on" (as well as "off"). Second, when answering questions, young children exhibit formal reticence, in which their responses to questions are minimally sufficient given the form of the question. When asked yes/no questions, they tend to provide unelaborated "yes" and "no" responses (Stolzenberg & Lyon, 2014). Among younger and more impulsive children, this includes their responses to do you know/do you remember wh- questions, which explicitly are yes/no but implicitly wh- (Evans et al., 2015). That is, they will respond to questions such as "Do you remember when it

was?" with an unelaborated "Yes." Children's formal reticence suggests that their misleading answers to questions about clothing will extend to forced-choice questions, that is, questions that provide options conjoined with "or," such as "Were your clothes on off?"). When asked forced choice questions, young children tend to choose one of the responses, even when neither response is correct (Peterson & Grant, 2001; Rocha, Marche, & Briere, 2013). Children exhibit these response tendencies even when they don't know the answers to the questions; that is, they are disinclined to provide "I don't know" answers to yes/no and forced-choice questions (Memon & Vartoukian, 1996; Poole & Lindsay, 2001; Rudy and Goodman, 1991).

No research has assessed how children describe clothing placement, particularly in cases of child sexual abuse where such descriptions are critical. Despite the lack of research, commentators have offered interviewers advice about how they should ask children about clothing placement when investigating sexual abuse allegations. First, a number of authors have argued that forced-choice questions are appropriate, and may be made less problematic by adding a "something else" option (e.g. "Were your clothes on, or off, or something else?") (Anderson et al., 2010; Bourg et al., 1999; Faller, 2000; Oregon Department of Human Services, 2012). As Rocha and colleagues (2013) point out, however, the "something else" option has not been empirically tested. Therefore, it is unknown whether children often (or appropriately) choose the "something else" option. Second, some have argued that interviewers should avoid yes/no and forced-choice questions and instead ask wh- questions such as "Where were your clothes?" or "Where were his clothes?" (APSAC, 2012; Lyon, 2005). This advice is based on the general principle that wh- questions are more productive and less likely to lead to commission errors (Lamb et al., 2008). Others argue that wh-questions about clothing are "ambiguous questions that have no boundaries to guide or direct a response" (Anderson et al., 2010), and may require more specific follow-ups. Again, no research has examined how children respond to wh- questions about placement. One potential problem is that children's formal reticence may lead them to provide incomplete answers even to wh- questions. Young children initially provide "singleton" responses to wh- questions that call for exhaustive answers (e.g. "who" questions) (Roeper, et al., 2007).

Questions about clothing placement may be further complicated by reference to prepositions that young children may not fully understand. A substantial amount of research has examined young children's emerging understanding of prepositions, but its implications for questioning children about placement clothing is unclear (Bowerman 1996; Clark 1973; Grieve, Hoogenraad & Murray, 1977; Wilcox & Palermo, 1975). Children develop an association of "on" with support, "in" with containment, "under" with occlusion, and "up" with verticality (Clark, 1978; Clark, 2004; Johnston & Slobin, 1979; Tomasello, 1987). However, several researchers have noted that children exhibit an early understanding of the word "on" as part of phrases like "put your clothes on," in which case "on" is not a preposition, properly speaking, but a verb particle. Verb particles can grammatically be moved in a sentence whereas prepositions cannot; one can say, "Put on your clothes" or "Put your clothes on" (Kelly, 2002; Tomasello, 1987). Whether this distinction matters to children's comprehension is unknown.

Finally, there are reasons to believe that there may be significant differences in how questions are asked, and how children respond, when examining both criminal trials and forensic interviews in the same investigation. Court trials may be an especially stressful experience for children (Goodman et al., 1992), and as such, they may be less inclined to provide accurate and complete responses (Saywitz & Nathanson, 1993; Hill & Hill, 1986). In court, the children must confront the defendant, there is often little rapport building to ease the child (Ahern, Stolzenberg & Lyon, 2015), and attorney questions may be intentionally direct as a means of controlling the testimony of child witnesses (Myers, 1986). In contrast, forensic settings are often much more intimate, with questioners more likely to engage in rapport building to increase children's comfort and productivity (Hershkowitz, 2011). In addition, forensic interviewers are instructed to ask open questions, as a means of minimizing suggestiveness and facilitating completeness (Lamb et al., 2008).

The purpose of this study was to assess questions and answers regarding clothing placement in child sexual abuse trials and forensic interviews. We hypothesized that questions about clothing placement would predominantly be yes/no and forced-choice, especially in court. Further, we predicted that when asked yes/no and forced-choice questions, children would predominantly provide unelaborated descriptions of clothing placement. Consistent with prior research, we predicted that wh- questions would be more likely to elicit detailed clothing descriptions than closed-ended questions. Finally, and most importantly, we hypothesized that wh- questions would be more productive beyond traditional measures; we predicted that wh- questions would elicit more intermediate answers (responses that cannot be characterized by a single preposition). This final hypothesis is central, as an incorrect selection of a proffered response ("Were your pants on?" "Yes") might misstate circumstances that are critical to substantiating sexual abuse.

Method

To assess how children alleging sexual abuse are questioned about clothing placement, we examined criminal trial testimony and forensic interviews.

Trial Testimony

Pursuant to the California Public Records Act (California Government Code 6250, 2010), we obtained information on all felony sexual abuse charges under Sect. 288 of the California Penal code (sexual abuse of a child under 14 years of age) filed in Los Angeles County from January 2, 1997 to November 20, 2001 ($N = 3622$). Sixty-three percent of these cases resulted in a plea bargain ($n = 2275$), 23% were dismissed ($n = 833$), and 9% went to trial ($n = 309$). For the remaining 5% of cases, the ultimate disposition could not be determined because of missing data in the case-tracking database. Among the 309 cases that went to trial, 82% led to a conviction ($n = 253$), 17% an acquittal ($n = 51$), and the remaining five cases were mistrials.

For all convictions that are appealed, court reporters prepare a trial transcript for the appeals court. Because criminal trial transcripts are public records (Estate of Hearst v. Leland Lubinski, 1977), we received permission from the Second District of the California Court of Appeals to access transcripts of appealed convictions. We paid court reporters to obtain

transcripts of acquittals and non-appealed convictions. Given funding limitations, we prioritized the acquisition of acquittals. We obtained transcripts for 235 of the 309 cases, which included nearly all of the acquittals and mistrials (95% or 53/56) and 71% (182/253) of convictions. For the purposes of the present investigation, we selected the cases (n = 103) in which children 12 or younger testified (n = 142 children); there were 21 cases with multiple children alleging against the same defendant. The children were 5 to 12 years of age (M = 9.07, SD = 1.87). In the sample selected, 75% of cases resulted in a conviction, 21% in an acquittal, and 3% in a mistrial.

Forensic Interviews

Two Child Advocacy Centers in Los Angeles County shared video recordings of forensic interviews with children conducted from 2004 to 2013 pursuant to parents' and guardians' consent to utilize anonymized versions of the interviews for training purposes (n = 421). Children had been referred for interviews by child protective services and/or law enforcement based on suspicions of child maltreatment. The interviewers had received unspecified amounts of training, though because of their employment and location had typically at least received the basic California Forensic Interview Training for California offered by the California Child Abuse Training and Assistance Center, which emphasizes the need to avoid yes/no and forced-choice questions. We created transcripts of the interviews that did not contain any individually identifying information. Transcripts were eligible for this study if the child was between 5 and 12 years of age, their interview was conducted in English, and they disclosed sexual abuse during the interview. These eligibility requirements yielded a sample of 155 children (M_{age} = 7.50, SD_{age} = 2.28).

Coding

We identified all question-answer pairs that included references to clothing placement occurring in the past (thus excluding questions such as "What is the defendant wearing?"). We coded for the clothing item mentioned, whether the interviewer elicited information about clothing placement or the child spontaneously provided such information, question-type, and response-type. Question-type was categorized as wh- (what, how, where, when, why, who), yes/no (including "Do you remember" and "Do you know" questions), forced-choice, or suggestive. Suggestive questions included both tag questions (e.g., "He took your clothes off, right?") and negative term questions (e.g., "Didn't he take your clothes off?). Forced-choice questions were additionally coded for whether they added a "something else" option. Response-type was coded as "I don't know," unelaborated (answering only "yes" or "no" to a yes/no question, or choosing an explicitly provided response to a forced choice question), or elaborated (providing a response beyond yes/no or information that is contained in the question). In addition, we coded whether questions or responses included a preposition (or preposition-like word, such as a verb particle that can act as a preposition), and what prepositions were mentioned. Finally, we coded for whether children provided detailed clothing responses and intermediate answers. Detailed clothing responses provided more information about clothing than simply a preposition (e.g., "He pulled off my pants," because the response goes beyond reporting that the pants were "off"). Responses were coded as intermediate answers when the description of clothing placement could not be captured by a single preposition; instead the placement of clothing was more complex (e.g.

"My pants were on my knees," because the pants were neither completely "on" nor "off"). Two research assistants coded all question-answer pairs to reliability, independently coding 20% of the transcripts with all variables having a minimum reliability of $\kappa = .80$. Age was considered both as a scale variable, and as a categorical variable: younger (4 – 8-year-olds) and older (9 – 12-year-olds) children.

Results

Across the 297 interviews, 72% had question-answer pairs that focused on clothing descriptions during abuse, and this occurred on average, 5 times per case ($SD = 7.30$). There was a significant difference in both the proportion of cases with instances, χ^2 (1, N = 297) = 7.65, $p = .006$, Cramer's V = .16, and the average number of instances, $t(295) = 2.89$, $p = .004$, SE = .84, 95% CI [.77, 4.06] between the criminal (80% of cases, $M_{instances} = 6.65$, $SD_{instances} = 8.91$) and forensic (65% of cases, $M_{instances} = 4.24$, $SD_{instances} = 5.18$) samples. There was no relation between the age of the child and the number of question-answer pairs about clothing placement in trial questioning, however, there was for forensic interviews, $r(155) = .27$, $p = .001$; younger children had fewer question-answer pairs ($M = 4.56$, $SD = 6.10$) than older children ($M = 6.36$, $SD = 8.39$). Given the significant differences in the two samples, sample type is considered in subsequent analyses.

In the 297 cases, there were 1610 eligible question-answer pairs about clothing placement, 81% inquired about clothing placement in the question; the remaining 19% of question-answer pairs had spontaneous mentions of clothing placement in the child's answer only, with an average of one instance per case ($SD = 2.03$). Children were less likely to spontaneously discuss clothing placement in criminal (28% of cases had at least one instance; 12% of question-answer pairs were spontaneous mentions; $M_{instance} = 0.73$, $SD_{instance} = 1.72$) compared to forensic questioning (41% of cases had at least one instance; 29% of question-answer pairs were spontaneous mentions; $M_{instance} = 1.30$, $SD_{instance} = 2.25$), χ^2 (1, N = 297) = 5.61, $p = .018$, Cramer's V = .14, χ^2 (1, N = 1610) = 68.39, $p < .001$, Cramer's V = .21, $t(295) = 2.47$, $p = .014$, SE = .23, 95% CI [.12, 1.04]. Spontaneously describing clothing placement was unrelated to age of the child. In addition, spontaneous descriptions of clothing placement most commonly occurred in response to a wh- question (86%), and otherwise occurred in response to yes/no inquiries. Children's spontaneous productions of clothing location ($n = 305$) were almost always detailed (providing information beyond a single preposition; 89%) and frequently intermediate (cannot be defined by a single preposition; 33%). Subsequent analyses are restricted to children's responses to questions that specifically referenced clothing placement.

Question and Response Characteristics

Descriptive statistics for interviewer questions and children's responses are presented in Table 1. Question-type varied significantly for the two samples, χ^2 (4, N = 1305) = 363.27, $p < .001$, Cramer's V = .52; in trial interviews, yes/no questions were most common, compared to forensic interviews where wh- questions were most common. Whereas forensic interviewers did not vary question-type by the age of the child, Trial attorneys asked more forced-choice (14%) and suggestive questions (10%) of younger children than of older

children 9% and 4% respectively), while asking more wh- questions (11%) and yes/no (69%) of older children than younger children (7% and 62% respectively), χ^2 (4, N = 830) = 23.07, $p < .001$, Cramer's V = .16. A subsequent analysis examined, specifically in the trial sample, whether there were differences between prosecutors and defense attorneys. Prosecutors asked 68% of the eligible question-answer pairs. Prosecutors asked more wh-questions (12%) and forced-choice questions (15%) than defense attorneys (4% wh-, 3% forced-choice), whereas defense attorneys asked more yes/no (79%) and suggestive questions (15%) than prosecutors (yes/no 71%, suggestive, 2%), χ^2 (3, N = 830) = 83.49, $p < .001$, Cramer's V = .32.

Children's response-type by question-type by sample is displayed in Figure 1. A binary logistic regression was conducted on children's elaborative responses (compared to their unelaborated responses, combining "I don't know" responses with unelaborated), with age (scale), question type, and sample (forensic/trial) entered simultaneously. The results are presented in Table 2. There was a main effect for question type, whereby wh- questions were more likely to elicit elaborative responses. Children typically provided unelaborated answers to the closed-ended questions; they provided elaborative responses to only 17% of the yes/no questions and 19% of the forced-choice questions. In addition, there was a main effect for sample, whereby trial attorneys were less likely to elicit elaborative responses (21%) than forensic interviews (61%). Overall, "I don't know" responses were uncommon (9% of wh-questions, 6% of yes/no questions, 2% of forced-choice questions).

Prepositions and Descriptions of Clothing Placement

Most frequently, interviewers inquired about single items of clothing (49%) or clothing generally (e.g. "Were your clothes on?"), and the remaining 16% inquired about multiple pieces of clothing simultaneously. Sixty-eight percent of inquiries about clothing placement included a preposition, and this was more likely to occur in the trial transcripts (78%) than in the forensic transcripts (50%), χ^2 (1, N = 1305) = 113.17, $p < .001$, Cramer's V = .29. Trial and forensic inquiries differed in prepositions used, χ^2 (4, N = 887) = 54.88, $p < .001$, Cramer's V = .26. Attorneys were significantly more likely to ask about "on" or "off" (63% attorneys, 45% forensic interviewers) while forensic interviewers were more likely to ask about "over" or "under" the clothes (5% attorneys, 20% forensic interviewers), χ^2 (1, N = 599) = 54.38, $p < .001$, Cramer's V = .30. Descriptive statistics assessing preposition usage are presented in Table 3.

Of particular interest was whether wh- questions would be more likely to elicit detailed clothing descriptions and intermediate answers. The reader will recall that detailed clothing descriptions entailed providing more information than a single preposition (e.g., detailed: "He took my pants off" vs. non-detailed: "My pants were off"), and intermediate answers were inconsistent with a single proposition (e.g., intermediate: "My pants were around my ankles" vs. non-intermediate: "My pants were on"). Because they are particularly informative responses, we provide examples of intermediate answers in Table 4.

We conducted a binary logistic regression on children's detailed clothing responses, with age (scale), sample (forensic/criminal), and question-type (wh-, yes/no, and forced-choice) entered as predictors on a single step. Table 5 presents the results. Age, sample, and

question-type were all significant predictors. Older children gave more detailed descriptions (61%) than younger children (39%). Children gave fewer detailed descriptions in trial questioning (10%) than in forensic questioning (29%). Children gave more detailed descriptions to wh- questions (45%) than to yes/no (7%) or forced-choice (7%) questions.

We also conducted a binary logistic regression on children's intermediate answers. Table 6 presents the results. Age and question-type were significant predictors. Older children gave more intermediate descriptions (12%) than younger children (8%). Most importantly, children gave more intermediate responses when asked a Wh- question (28%) than when asked a yes/no (3%) or forced-choice (6%) question.

Because some have recommended the use of "something else" forced-choice questions (Anderson et al., 2010; Bourg et al., 1999; Faller, 2000; Oregon Department of Human Services, 2012), we further examined forced-choice questions and their productivity. Of the 172 forced-choice questions across the two samples, 26% ($n = 44$) included a "something else" option. This was less likely to occur in trials (10% of forced-choice questions) than in forensic interviews (44% of forced-choice questions), χ^2 (2, N = 172) = 25.93, $p < .001$, Cramer's V = .39. First, we examined whether children were more likely to resist one of the proffered responses when asked the "something else" question. When children were asked a typical forced-choice question, they resisted simply choosing one of the proffered responses only 15% of the time (and answered "I don't know" less than 1% of the time). When they were given the "something else" option, they resisted the proffered responses 32% of the time (and answered "I don't know 5% of the time). The something-else option increased the likelihood of resisting a proffered response, χ^2 (1, N = 169) = 6.78, $p = .009$. Second, we examined whether children were more likely to provide detailed clothing responses when asked the "something else" option. Here, they rarely did so in response to either type of forced-choice question (9% of the time to the typical forced-choice question, 2% of the time to the "something else" question). Third, we looked for intermediate answers, and again neither type of forced-choice question was effective (6% in response to the typical forced-choice question, 5% to the "something else" question).

Discussion

The present study examined how children alleging sexual abuse are asked about clothing placement during abusive episodes, both in criminal trials and forensic interviews. The placement of clothing is of great importance, because it facilitates distinguishing abusive touch from non-abusive touch, as well as the severity of abuse when the touching is in fact sexual. If clothing has not been removed, at least partially, then sexual abuse appears less likely and certain types of sexual contact are physically impossible (or at least highly improbable). We assessed how often clothing placement was discussed, whether it was spontaneously mentioned by children or elicited by interviewers, how it was elicited, and whether children would provide more detailed or intermediate responses based on the way in which it was elicited. We predicted that questioners would most often ask children about clothing placement using yes/no and forced-choice questions, rather than wh- questions, and that by doing so they would elicit less detailed and complete responses. Specifically, we predicted that wh- questions would often lead children to describe clothing placement in a

fashion that was not captured by yes/no and forced-choice questions: they would elaborate on their responses, provide additional clothing detail, and, most importantly, provide an intermediate description, that is, a description that makes clear that choosing one of two prepositional pairs to describe clothing (e.g., on or off) would lead one to misconstrue the event. Our hypotheses were supported.

Discussions about clothing placement were common both in court and in the forensic interviews, illustrating the importance of eliciting such descriptions. They were particularly common in court, suggesting that attorneys place greater importance on clothing details. In the sample as a whole, questions about clothing were most often elicited by the questioner with a specific reference to clothing (80%), rather than spontaneously mentioned by the child, highlighting the importance of asking about clothing in the most productive possible manner. As we predicted, yes/no and forced-choice questions predominated; only 25% of the questions were wh-. At the same time, the least common questions were the most productive; wh- questions led to more elaboration and more detail about clothing. Most significantly, when children spontaneously described clothing placement or were asked about clothing placement with a wh- question, they described it in a way that could not be captured by a single preposition over 25% of the time, whereas if they were asked about clothing placement with another form of question, they did so only about 5% of the time. This suggests that if interviewers ask closed-ended questions, they will likely misconstrue clothing placement in about 20% of cases. For example, a child might report that his clothing was “on” during penetrative sexual abuse, despite the fact that his clothing was partially removed. As noted in the introduction, this can lead the child’s report to appear incredible (State v. Emmett, 1992).

In a number of respects children’s reports were more productive in forensic interviews than at trial. When asked about clothing, children were more likely to elaborate on their answers and to provide additional details about clothing placement in forensic interviews. In part, this can be attributed to the fact that forensic interviewers asked a higher proportion of wh- questions than attorneys (52% vs. 9%). This is consistent with other research finding that forensic interviewers ask more open-ended questions than attorneys (Hanna, Davies, Crothers, & Henderson, 2012).

It is possible that at least some of attorneys’ avoidance of wh- questions was strategic. Defense attorneys were less inclined to ask wh- questions than prosecutors, and more inclined to ask suggestive questions. Defense attorneys are surely less interested in eliciting elaborative reports from child witnesses than prosecutors or forensic interviewers, and hope to exert maximum control through their questioning (Myers, 1986). For their part, however, prosecutors were still largely disinclined to ask wh- questions, doing so only 12% of the time. Although prosecutors might have reasons to avoid very broad open-ended questions for fear that a child will provide unexpected answers that fail to coincide with the charges (or the prosecutors’ description of the case in his or her opening statement), it is hard to see why they would prefer yes/no and forced-choice questions to wh- questions such as “Where were your clothes?” At best, children provide minimal responses to yes/no and forced-choice questions, which is unlikely to add to their credibility with the jury, and at worst, they provide underinformative responses that paint a misleading picture of the abuse event.

Given the correlational nature of our data, we cannot rule out the possibility that prosecutors were selectively asking wh- questions when it was necessary to do so to elicit intermediate descriptions of clothing placement, and asking yes/no and forced-choice questions when they knew that clothing placement could be simply described. This seems unlikely, however. When children spontaneously described clothing placement, they described intermediate descriptions 33% of the time, but as noted, prosecutors' asked wh- questions about clothing placement only 12% of the time.

Even when question-type was controlled, children were more likely to provide elaborative responses and to provide additional details about clothing placement in interviews than at trial. Moreover, they were more likely to spontaneously mention clothing placement. We suspect that this is due to the stressfulness of testifying in court (Goodman et al., 1992), which has been shown to inhibit children's responsiveness (Saywitz & Nathanson, 1993; Hill & Hill, 1986), and to attorneys' failure to build rapport and increase children's productivity by asking open-ended questions about innocuous events before asking about abuse (Ahern et al., 2015).

Although the forensic interviewers fared better than the trial attorneys in this sample, they were far from perfect. Half of their questions were open-ended, but of course half were therefore closed-ended. And although children were more likely to spontaneously mention clothing placement in the forensic interviews than in the trials, they still did so in less than half of the forensic interviews. On the one hand, this may suggest that children are not inclined to spontaneously mention information about clothing and that it is necessary for the interviewer to introduce the topic. Indeed, recent research has begun to investigate the most productive wh- questions in both forensic (***, in press) and criminal settings (Ahern et al., 2015; ***, in press), with the recognition that some topics may require more specific inquiry.

On the other hand, it is also possible that children's spontaneous production of information about clothing placement would have been elicited had forensic interviewers made greater use of requests for free recall ("Tell me everything that happened") and "cued invitations," in which interviewers encourage children to elaborate on their prior responses by asking questions such as "You said [child generated detail]; what happened next?' and "You said [child generated detail]; tell me more about that." These types of prompts have been found to be both underutilized and highly productive (and in particular more productive than wh-questions) (Brown et al., 2013; Lamb et al., 2008). Moreover, interviewers might productively elicit descriptions of clothing placement through invitations that specifically reference clothing (e.g., "What happened to your/his clothes when…"). These could have the additional advantage of producing narratives from children about changes in clothing placement; note that both closed-ended questions (e.g., "were your clothes on?") and wh-questions (e.g., "Where were your clothes?") ask about moments in time, which are likely to provide an incomplete picture of the abuse narrative, and may confuse children.

We found several age differences showing that older children were more likely to give detailed clothing responses and intermediate answers, probably due to their superior verbal skills and memory. Attorneys (but not forensic interviewers) also showed some tendency to

ask children different types of questions at different ages; they were less likely to ask younger children wh- questions, and more likely to ask them suggestive questions. As noted in the introduction, some commentators have argued that wh- questions will be difficult for younger children, and that forced-choice questions could be made more productive (and less likely to elicit errors) by adding a "something else" option. We found little evidence supporting this view. When interviewers used this approach (which only occurred in the forensic interviews), children were more likely to resist a proffered response, but they were no more likely to provide additional details about clothing placement, and most importantly, were no more likely to provide an intermediate response. However, the use of the "something else" option was quite uncommon, and future research should examine its utility in the field (and its accuracy in the lab).

One limitation of the study is that we cannot determine whether children's responses were accurate. This is true of most observational research, which is nevertheless valuable for the insight it provides into actual practice and into the productivity of different questioning strategies in actual cases. Fortunately, the kinds of questions that this study finds most productive (wh- questions) are typically found to elicit fewer commission errors than yes/no questions and forced-choice questions in laboratory research (e.g., Peterson, Dowden, & Tobin, 1999). Nevertheless, future research should examine the productivity and accuracy of different types of questions about clothing placement in the lab. As noted in the introduction, the research on children's understanding of prepositions is of uncertain relevance for measuring children's ability to describe clothing placement. If children's understanding of prepositions in the abstract does in fact map onto their understanding of prepositions (and preposition-like words, such as verb particles) with respect to clothing, then differences between their usage and adult usage may arise. If children associate "on" with support, then they may call clothes "on" as long as they are supported by some part of the body, even if an adult would call them partially "off." If they associate "up" and "down" with verticality, then they may deny that articles of clothing have been pulled "down" unless the person is standing.

Another limitation of the present study is that all of the interviews occurred in a single county. Los Angeles County is the largest and most populous county in the United States, as well as highly diverse, socioeconomically and ethnically. Nevertheless, interviewing practices are likely to vary enormously across jurisdictions. A related problem is that although the forensic interviews are relatively recent, all of the trials occurred at least 14 years ago. However, there is little evidence that attorneys' questioning techniques have improved over time. For example, Hanna et al. (2012), who analyzed courtroom transcripts in New Zealand from 2008, noted that their results were similar to those reported by Davies and Seymour (1998), who examined transcripts from cases tried in 1994. Nevertheless, it would be important for future research to examine a more recent sample of trials to determine whether questioning practices have improved over the years.

Further, we analyzed productivity at the question level rather than at the child level. This is consistent with much of the research on the productivity of question-types (Lamb, Sternberg, & Esplin, 2000), however, in doing so we ignored the possible dependence among attorneys, children, and question-types. Ideally, studies on productivity would compare how

individuals respond to different types of questions asked by the same attorney, but given the number of questions about clothing placement, this was not possible in the present investigation.

We could not account for delay of time between the alleged sexual abuse and subsequent questioning. When children provide testimony about criminal acts, delays of months or even years between testimony and the original event are not uncommon (Davies & Pezdek, 2010). It is possible that the delay between abuse and interview may have been greater in the criminal sample. This difference may influence the results, in the longer delays may lead to greater deterioration in memory, potentially influencing children's responding. However, the fact that we see similar results across the two samples strengthens the conclusion that question-type drive the primary finding that wh- questions are superior, and in particular are more likely to elicit descriptions of clothing placement that could not be captured by a single preposition.

In conclusion, descriptions of clothing placement are often critical in assessing whether and how sexual abuse occurred. The present study provided a first step in systematically assessing how attorneys and forensic interviewers question children about clothing placement in cases of child sexual abuse. The findings suggest that children's answers are at best incomplete, and at worst misleading, when they are asked yes/no and forced-choice questions, and that, unfortunately, these questions predominate. However, a better approach seems straightforward: questions like "Where were your clothes" and "Where were his clothes" appear much more productive and much less likely to lead to misunderstanding.

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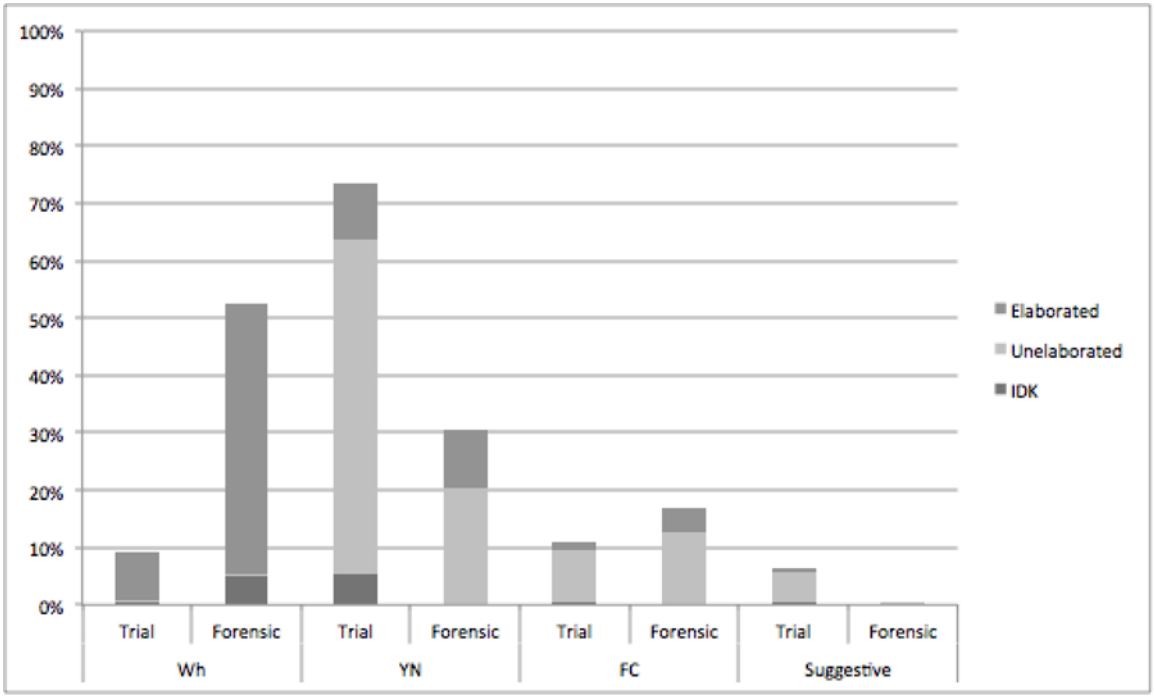

Figure 1.

The proportion of question-answer pairs for forensic and criminal transcripts that included a suggestive, forced-choice, yes/no, or Wh- question, along with the associated child's relative responses rates for "I don't know," unelaborated, and elaborated responses.

Table 1

The proportion of question-types and response-types by sample.

	% Forensic (n = 475)	% Trial (n = 830)	% Overall (N = 1305)
Question Type			
Wh-	52%	9%	25%
Do you remember/know	1%	7%	4%
Yes/No	30%	67%	53%
Forced choice	17%	11%	13%
Suggestive	0%	6%	4%
Response type			
Elaborative	61%	20%	35%
Unelaborative	34%	73%	59%
I don’t know/uncertain	5%	7%	6%

Table 2

Binary logistic regression assessing age, sample, and question-type as predictors of children's elaborative responses

	df	Wald		B	SE (B)	Odds Ratio
Age	1	3.14		0.07	0.04	1.07
Question Type Overall	3	263.22	***			
Question Type (Wh- referent)	1	56.03	***	3.87	0.52	47.94
Question Type (YN referent)	1	1.04		0.49	0.48	1.63
Question Type (Suggestive referent)	1	0.52		0.37	0.52	1.45
Sample (Trial referent)	1	25.22	***	−0.88	0.18	−0.41
Constant	1	11.81	***	−2.00	0.58	0.14

*** p<.001,

** p<.01

Model chi-square (5, n =1305) = 610.20, p < .001.

Legal Criminol Psychol. Author manuscript; available in PMC 2018 September 01.

Table 3

The percentage of different prepositions found in questions or answers, by sample.

	Forensic (n = 475 Q-As)	Trial (n = 830 Q-As)	Overall (n = 887 Q-As)
On/Off	45%	63%	58%
Over/Under	20%	5%	9%
Up/Down	22%	20%	20%
Inside/Outside	6%	4%	5%
Multiple	7%	8%	8%

Table 4

Examples of children's intermediate descriptions of clothing placement.

Child's Age	Sample	Question	Answer
5	Forensic	Q: Oh, ok. And where were your clothes when this was happening?	A: My pants were falling down when I was walking, because I needed to use the bathroom (ok) and I had my boxers on, and my shirt was right here [motions to chest].(Oh, ok. Ok) I rolled it up.
6	Forensic	Q: And where were your shorts?	A: On me too, its just pulled off a little bit.
7	Forensic	Q: But when [suspect] touched your vagina what happened to your underpants?	A: He lifted them up, put his finger it in (ok), touched my vagina, blood came out [inaudible], blood came out of my vagina, touching my underpants, we put them in the trash.
8	Forensic	Q: How were [suspect's] pants when he made you suck his private?	A: He was wearing shorts, like, his shorts were down to like his knees.
9	Forensic	Q: When he touched you where were your clothes?	A: He just pulled down my pants up to here [points to calf].
9	Forensic	Q: Ok, and how did his hand get to your middle, how did it get there?	A: Like he went under the dress, and then, he felt my shorts and then he he put his two hands, he put one of them one of them to hold up the pants stretch, and then he put his hand under my underwear. And all he did with his two hands, he just, he just touch inside my middle.
9	Criminal	Q. How far did he pull your underwear down?	A. All the way down to my feet.
9	Criminal	Q. Where were your panties?	A. They was down to my feet.
11	Criminal	Q. And when you wore shorts. What did he do with the shorts?	A. He would pull them down to my knees, too.
12	Criminal	Q. How far off his body did he take off his pants?	A. It wasn't like - it was on his waist but only his zipper and his buttons were off.

Table 5

Binary logistic regression assessing age, sample, and question-type as predictors of children's detailed descriptions of clothing placement.

Predictor	df	Wald		B	SE(B)	Odds Ratio
Age	1	9.40	**	0.12	0.04	1.13
Sample	1	7.44	**	−0.56	0.20	0.57
Question-Type (Overall)	2	124.10	***			
Question-Type (Wh- referent)	1	50.27	***	2.30	0.32	9.95
Question-Type (Yes/No Referent)	1	0.22		0.16	0.34	1.17
Constant	1	54.70		−3.40	0.46	0.03

*** p<.001,

** p<.01

Model chi-square (4, n =1192) = 22.07, p < .001.

Table 6

Binary logistic regression assessing age, sample, and question-type as predictors of children's intermediate descriptions of clothing placement.

Predictor	df	Wald		B	SE(B)	Odds Ratio
Age	1	11.92	**	0.16	0.05	1.17
Sample	1	1.78		−0.33	0.25	0.72
Question-Type (Overall)	2	83.38	***			
Question-Type (Wh- referent)	1	26.23	***	1.82	0.36	6.18
Question-Type (Yes/No Referent)	1	2.67		−0.66	0.40	0.52
Constant	1	57.68		−4.06	0.54	0.02

*** p<.001,

** p<.01

Model chi-square (4, n =1192) = 152.31, p < .001.