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Attorneys' Questions and Children's Productivity in Child Sexual Abuse Criminal Trials

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Abstract

We investigated the links between questions child witnesses are asked in court, children's answers, and case outcome. Samples of acquittals and convictions were matched on child age, victim-defendant relationship, and allegation count and severity. Transcripts were coded for question types, including a previously under-examined type of potentially suggestive question, declarative questions. Children's productivity was conceptualized in a novel way by separating new from repeated content and by adjusting the definition based on the linguistic demands of the questions. Attorneys frequently used declarative questions and disconcertingly, attorneys who used these and other suggestive questions more frequently were more likely to win their case. Open-ended and closed-ended questions elicited similar levels of productivity from children and both elicited more productivity compared with suggestive questions. Results highlight how conceptualization of questions and answers can influence conclusions, and demonstrate the important real world implications of attorney questioning strategies on legal cases with child witnesses.

Keywords: child witnesses, memory, testimony, attorney questioning

Attorneys' Questions and Children's Productivity in Child Sexual Abuse Criminal Trials

Legal cases involving alleged child sexual abuse have received massive media coverage in the United States and abroad over the last several decades (see for example Britton, 2004; Commonwealth v. Sandusky in Drape, 2012; Levs & Dolan, 2012; Paulson, 2002; State v. Buckey, 1990). This attention has been paralleled by a burgeoning body of research focusing on factors that influence children's reports of past experiences (see Lamb & Malloy, 2009; London & Ceci, 2012 for reviews). However, little of this work has directly examined children's in-court testimony, despite the fact that case outcomes rest on juror opinions about the evidence heard in court, including children's statements.

In the present study, we investigated, in a systematic and comprehensive manner, the types of questions children are asked in court, how much information children provide when answering those questions, and the links among questions, answers, and case outcome. We were particularly interested in, first, variations in the format of attorneys' questions, including their use of declarative questions, defined as questions with a statement format (e.g. "And that's when you left?"), which have rarely been examined in the literature on children's eyewitness capabilities. Second, we were interested in how the different question formats related to children's production of details about the alleged abuse. And third, we sought to understand whether specific question-answer combinations differentially predicted case outcomes. Of importance, we relied on data collected from criminal trials involving allegations of child sexual abuse to ensure that we were tapping into what children are actually asked in court and how children actually answer.

Interviewer questions and children's responses have been studied almost exclusively in the laboratory or via transcripts of children's out of court statements (but see Zajac, O'Neill, & Hayne, 2012 for some notable exceptions). Testifying in court, however, is also critically

important, particularly in the United States justice system, and may be unique in terms of how questions are asked, how questions influence children's answers, and how both influence case outcome. For one, in-court testimony can be stressful and confusing, at least for a subset of children (Goodman et al., 1992; Quas et al., 2005), which can make some children reluctant to respond in court. For this reason, most states allow an attorney to ask leading questions of children during direct examination if they appear to have difficulty providing information. Furthermore, leading questions are allowed in cross-examination as a matter of course, so that the cross-examiner can challenge the witnesses' story (Mueller & Kirkpatrick, 2009). Second, the decisions made as a result of children's in-court testimony profoundly affect the progression of the case and hence the lives of children, families, and the defendant. It is, as a result, imperative to understand how children's in-court testimony, as well as the questions that elicited that testimony, contribute to the final case decision.

Research consistently demonstrates that open-ended questions, such as WH questions (who, what, when, where, why, how), best facilitate children's spontaneous narrative productivity and that the content of children's narrative responses tends to be more accurate than their responses to closed-ended questions (e.g. Cassel, Roebers, & Bjorklund, 1996; Goodman, Hirschman, Hepps, & Rudy, 1991; Kulkofsky & Klemfuss, 2008; Lamb et al., 1996; Lamb & Fauchier, 2001; Poole & Lindsay, 1995; Quas & Schaaf, 2002). Closed-ended questions have typically been broken into several categories, such as yes/no, option-posing, and tag formats, with the latter often being classified as suggestive because they imply an expected response (e.g. Sternberg, Lamb, Esplin, & Baradaran, 1999). What is often missing from the most commonly noted forms of closed-ended question classifications is another potentially highly influential

question form, namely, declarative questions, which are those that take the form of statements to

be accepted or rejected by a conversational partner (e.g., "He hurt you?").

Despite being largely overlooked in the psycho-legal literature, declarative questions

have been extensively studied in the linguistic literature. Not only do they appear quite

frequently in everyday conversations (Freed, 1994; Stivers, 2010), but there is evidence that they

regularly elicit conversational agreement in children (Bishop, Chan, Hartley, & Weir, 1998). As

such, declarative questions may well constitute an influential type of suggestive question.

Because there are minimal data showing how often these questions are asked in legal settings,

particularly with alleged victims of abuse, it is unknown as to whether the questions pose a

significant problem for children. Nor is it known how children answer declarative statements

when questioned in court.

Turning to children's responsiveness, several studies have examined how the different

question forms influence children's response productivity (see Lamb, Orbach, Hershkowitz,

Esplin, & Horowitz, 2007), with productivity often defined in terms of new references to people,

objects, and events (e.g. Lamb, Sternberg, & Esplin, 2000). Such definitions, however, do not

take into account basic conversational rules and, as a result, may lead to biased results

concerning question type differences in productivity. This may be especially noteworthy with

WH questions because, to answer open-ended questions even minimally, a narrative response

may be required. In contrast, to answer a closed-ended question, only a yes/no or other single

word response is sufficient. For example, more words are required for a minimal response (i.e. "I

ran home") to answer the question "How did you get home," than for a minimal response (i.e.,

"yes") to answer the question, "Did you run home after that?" In each case, however, children

are providing the bare minimum necessary. Also, children may, at times, provide spontaneous

elaborations, that is, produce information not specifically referenced in the question.

Alternatively, children may repeat information presented in an attorney's question, thereby

sounding productive while not elaborating at all (i.e. in response to "was he wearing a blue

shirt?" responding "yes, he was wearing a blue shirt"). In order to understand, in a more complex

and nuanced manner, how question forms influence children's productivity, it is necessary to

distinguish between whether children are providing a bare minimum response to a question,

elaborating on their responses with new information, repeating information already provided, or

spontaneously providing more productive answers.

Different potential question-answer relations are implicitly understood in the legal

system. For example, defense attorneys are advised to ask more closed-ended or direct questions,

including suggestive questions, during cross-examination to minimize and control a witness's

responding (Mueller & Kirkpatrick, 2011). When questioning a witness, defense attorneys

attempt to establish an alternate story and/or discredit the prosecutors' story, or discredit the

witness's believability or credibility. They do this, potentially quite often, via closed-ended and

suggestive questions (see Zajac, Gross, & Hayne, 2003; Zajac, et al., 2012 for a review), that is

questions that may not be conducive to enhancing productivity. Prosecutors, in contrast, are

likely attempting to create a story for the jury about the chain of events that led to and followed

the crime. Because prosecutors have considerably more opportunities to interview child

witnesses, they may be more confident in how a child will respond to open-ended questions and

may therefore be more inclined to ask them in order to allow the child to provide more story-

consistent details. Thus, in the present study, we were also interested in attorney differences in

questioning and how these differences related to children's responses.

Finally, there are reasons to suspect that question types and responses have implications for case outcomes. In forensic interviews, educational settings, and social interactions, providing productive responses to questions is desired, appropriate, and rewarded (Dillon, 1985; Nelson & Fivush, 2000). While on the witness, stand, though, high productivity is risky. When a child provides details on the stand, attorneys have little to no control over the content, which could damage the argument of either side. Defense attorneys spend little time with the child beforehand (often, none at all), and thus may have a particularly challenging time predicting what the child might say, or how competent and credible the child might sound to jurors if allowed to give detail. Elaboration, though, may also be damaging for prosecutors because if the child provides contradictory information across responses, the child may appear less credible to jurors (Bergman et al., 1995). Because prosecutors have more access to the child before trial, they may be able to ask open-ended questions to which they know the child will respond favorably. However, the child's in-court testimony is limited by the charges in the case and the content of the prosecutors opening argument, making prosecutors still likely to be eager to control the child's narrative. Further, insofar as the child's productivity is off-task or undermining, lengthier narratives may hurt the prosecutor's story. Thus eliciting children's productivity on the stand is risky, and the precise consequences of that productivity is not yet clear.

In the present study, we analyzed transcripts from criminal trials of child sexual abuse to examine how the format of attorney questions related to children's response productivity and whether these relations predicted case outcomes. We selected a comparable number of cases that ended in acquittals and convictions, and matched the two groups in child age, relationship to the alleged perpetrator, and the severity of the crime. We then coded not only for open- versus closed-ended questions, but also for whether the closed-ended questions were option-posing,

suggestive, or were technically yes-no questions, but implied a request for additional information (e.g. Can you tell me what he looked like?). Finally, we conceptualized children's productivity in a novel, meaningful way by separating spontaneous content from content that was provided in the attorney's question and by adjusting the definition of productivity based on the specific linguistic demands of the questions asked.

We hypothesized that, in line with laboratory-based work and studies examining forensic interviews, WH questions would be associated with the greatest provision of novel details by children and that suggestive questions would be associated with the lowest productivity, even using our conservative measure of productivity. We also predicted that children's productivity would vary depending on both the types of questions asked and which attorney asked the questions. We specifically assumed children would be more likely to elaborate on open-ended questions, particularly when they were asked by prosecutors rather than defense attorneys. Finally, we expected that productivity would be associated with a higher conviction rate, especially when that productivity was in response to WH questions asked by prosecuting attorneys, given that these questions should facilitate the most accurate elaborations.

Method

Transcripts

The sample was comprised of 42 criminal court transcripts from cases of alleged child sexual abuse in Los Angeles County. These were selected from a larger data set of 223 transcripts from felony child sexual abuse cases that went to trial in the county between 1997 and 2001. All cases involved female victims under the age of 18 at the time of trial. Cases were removed if the defendant declined representation. We first selected acquittals given that there were far fewer; we then selected convictions that matched on the following characteristics (1) the

age of the child providing testimony, (2) the severity of the abuse allegations, (3) the relationship

of the alleged perpetrator to the victim/witness, and (4) the number of incidents charged. This

resulted in a total sample of 42 cases, 21 acquittals and 21 convictions. Descriptive information

decomposed by case outcome is presented in Table 1.

Coding

All attorney questions concerning abuse were coded for question type. Children's

responses to each attorney question were then coded. Consistent with prior dyadic research, only

one question was coded per attorney-child turn (e.g. Sternberg et al., 1999). However, children

could provide multiple pieces of information in response and therefore could receive multiple

codes for each turn (e.g. Reese & Fivush, 1993).

Attorney Question Codes

Attorney question types were coded based on previous forensic psychological research

concerning interviewing children about alleged victimization (see Lamb et al., 2007). Two

general categories: WH and Closed-Ended were first identified. Then closed-ended were further

broken down into option-posing, suggestive, and implicit, with further subdivisions within each,

as noted.

1. *WH Questions*: Questions including the word *Who*, *What*, *When*, *Where, or How*; e.g.
   "What happened the first time you went to his house?"

2. *Option Posing Questions:* Closed-Ended questions with a set number of available
   response options.

   - *Forced Choice Questions*: Questions that require children to choose between at
     least two provided responses; e.g. "Was he close to you or far away?"

- *Simple Yes-No Questions*: Questions meant to elicit a *Yes* or *No* response; e.g. "Did you like him?"

3. *Suggestive Questions:* Closed-ended questions that clearly suggest the expected or desired response.

- *Negative Term Questions:* Questions that ask children to confirm a negative assertion; e.g. "He didn't have anything in his hand?"

- *Tag Questions*: Questions that involve complete sentences with an interrogative tag at the end; e.g. "No one else was there, right?"

- *Declarative Questions*: Direct questions that take the form of complete statements; e.g. "But you remember your couch moving?"

4. *Implicit Yes-No Questions*: Closed-ended questions that are syntactically yes-no questions, but imply that additional information is expected; e.g. "Can you tell me more about that?"

Child Response Codes

Child responses were divided into propositional phrases, defined as unique subject-verb pairs according to procedures employed in prior studies of narrative development (e.g. Fivush, Haden, & Adam, 1995; Peterson & Biggs, 1998; Principe, DiPuppo, & Gammel, 2013). Each phrase was then coded as one of the following:

1. *Simple Response*: The most minimal response possible to answer a given question. A simple response to a Yes-No Question, for example, would be *Yes* or *No*, whereas a simple response to a WH Question could be a proposition (e.g. "What happened that day?" *"I went to my cousin's house."*) or a single word (e.g. "Where did you go next? *"School"*).

2. *Repeated Response:* The child repeated information from the attorney's question or the child's immediately previous response (e.g. "So you were scared?", "Yes. *I was scared*"_).

3. *Elaborated Response*: Propositions that included new details that went above and beyond simply answering the question (e.g. "Then what happened?", "*He told me that my hair smelled nice* and *he was hugging me* and *he told me that my hair smelled nice again*" would be coded as a simple response initially followed by two elaborations, namely that he hugged her and told her again how he liked her hair's smell).

4. *Don't Know Response*: The child indicated directly that he or she did not know the answer to the question.

5. *No Response Indicated*: The child either said nothing or requested additional information rather than responding (e.g. "*What do you mean?*").

Reliability

Coders independently coded approximately 20% of the transcripts for attorney question types and children's responses. Reliability was high for question type codes, with Cohen's kappas ranging from .66 to .96 across question categories ($M = .89$). Reliability for the response codes was moderate to high, with Cohen's kappas ranging from .61 to .92 across response types ($M = .78$). For both attorney codes and child codes, disagreements were discussed and resolved, and a single coder scored the remaining transcripts.

<center>**Results**</center>

Analyses are presented in two main sections. First, we examined attorneys' questioning strategies. Of interest was whether strategies differed between defense attorneys and prosecutors, between convictions and acquittals, and across child witness age. Second, we investigated

children's productivity differences by attorney type, case outcome, child age, and questioning

strategies.

Before these results are presented, it is important to note again that acquittals and

convictions were comparable on gender, age, allegation severity, relationship of alleged victim to

perpetrator, and whether there were single or multiple charges, Table 1. Thus, while the design

was necessarily correlational, we were able to control for many key variables that might be

expected to vary between the two types of outcomes.

Attorney questions

Attorneys asked an average of 193.90 (SD = 222.62) abuse-relevant questions per case,

though the range was substantial, between 12 and 1,248 questions. Defense attorneys asked on

average 76.24 (SD = 153.97) questions. Of these, the largest percentage was suggestive (see

Table 2), followed by option posing, and WH questions. Very few were implicit (4%).

Prosecutors asked, on average, 117.67 (SD = 92.48) questions, with the most frequent type being

option-posing (see Table 2), followed by WH, suggestive, and implicit (5%).

Because implicit yes-no questions were used so infrequently and because it is unclear

how children interpret these questions, (i.e., as yes/no, WH, or forced choice questions; Evans &

Lyon, under review), they were excluded from the remaining analyses. However, given their

potential ambiguity, it would be of interest in future research to investigate, across development,

how children interpret and respond to such questions.

When the number of questions asked was compared between defense attorneys and

prosecutors, several significant differences emerged. As might be expected from the means

reported above, prosecutors asked a greater number of questions overall than did defense

attorneys, t (41) = 2.08, p = .044, d = .30. Of greater interest, though, was whether proportion of

each type of question asked varied between attorneys. We tested for such differences via a 2

(Attorney type) X 3 (Question type) X 2 (Case outcome) mixed model ANCOVA, with child age

as a covariate, and attorney type and the proportion of each question type (out of the total

number of questions asked) entered as within subject factors.

A significant main effect of question type, $F(2, 78) = 15.05$, $p < .001$, $\eta_p^2 = .287$, was

subsumed by several interactions: question type x age, $F(2, 78) = 4.25$, $p = .018$, $\eta_p^2 = .098$;

attorney x question type, $F(1.72, 67.22) = 6.98$, $p = .003$, $\eta_p^2 = .152$[1]; and attorney X question

type X case outcome interaction, Fs, $F(1.72, 67.22) = 4.98$, $p = .013$, $\eta_p^2 = .113$. With regard to

the question type by age interaction, linear contrasts revealed significant differences in the

percentage of option posing versus suggestive questions across age, $F(1,39) = 10.61$, $p = .002$,

$\eta_p^2 = .214$. Correlations were examined to determine how increases in child age related to the

frequency with which attorneys used each type of question. With age, there was a significant

decrease in option posing questions, $r = -.49$, $p = .001$, but an increase in suggestive questions, r

$= .34$, $p = .030$.

Within the attorney type X question type and attorney type X question type X case

outcome interactions, linear contrasts revealed that attorneys varied in their use of WH and

option posing compared to suggestive questions. Defense attorneys used more suggestive

questions (EMM = .116) than did prosecutors (EMM = .072), whereas prosecutors used more

WH (EMM = .255) and option posing questions (EMM = .323) than did defense attorneys

(EMMs = .062 and .127, respectively). Even more interestingly, prosecutors and defense

attorneys' differential use of questions related to case outcome. As shown in Figures 1 and 2, for

both types of attorneys, the increased use of option-posing questions seemed to reduce the

likelihood of success in terms of each of their "desired" case outcomes (acquittal for defense,

[1] Output is adjusted to account for sphericity using Huynh-Feldt.

conviction for prosecution), whereas the increased use of suggestive questions seemed to slightly

increase the likelihood of the desired outcome, particularly for defense attorneys.

Of note, in the aforementioned analyses, the dependent measures were proportion scores,

reflecting the number of each type of question asked (separate for defense attorneys and

prosecutors) out of the total number of questions asked (by defense attorneys and prosecutors

combined). The use of these proportions was necessary to compare directly prosecutors' and

defense attorneys' questioning strategies, but their inclusion did not allow us to examine whether

individual attorneys were varying their question types in a strategic manner, for instance, by

varying the proportion of suggestive questions they asked relative to WH and option posing

questions. We thus calculated a second set of proportions that reflected the number of questions

of each question type that the attorney asked divided by the total number of questions asked by

that attorney (e.g. the number of suggestive questions defense attorneys asked divided by the

total number of questions defense attorneys asked). We then conducted two additional

ANCOVAs, one for defense attorneys and one for prosecutors. The outcome effect was no

longer significant, for either type of attorney. Thus, variations within a single attorney's

questioning did not impact case decisions. Instead, the relative use of the different question

formats between defense attorneys and prosecutors predicted case outcome.

Given our particular interest in declarative questions as a sub-category of suggestive

questions, in a final set of analyses concerning attorneys' questions, we conducted a mixed

model ANCOVA comparing the proportion of declarative questions asked to the proportion of

other types of suggestive questions, specifically tag and negative term questions (out of all

suggestive questions asked in the trial). No significant differences between declarative questions

and other suggestive question types were uncovered, directly or in conjunction with attorney type and case outcome.

Children's responses

Descriptively, children provided additional, spontaneous details in their responses far more frequently than they responded don't know, repeated content from the immediately previous turn, or failed to indicate a response (Table 3). This is somewhat surprising given the difficulties commonly observed in attorneys' questioning in general that seem to make responding challenging for children (e.g. Zajac & Hayne, 2003).

A mixed model ANCOVA examined the average number of children's elaborations by attorney, question type, and case outcome, with children's age included as a covariate. A main effect of age, $F(1, 28) = 5.80$, $p = .023$, $\eta_p^2 = .172$, was subsumed by two significant interactions: attorney X age, $F(1, 56) = 5.77$, $p = .023$, $\eta_p^2 = .171$, and question type X Age, $F(2, 56) = 3.90$, $p = .026$, $\eta_p^2 = .122$. A linear contrast revealed that the question type X age interaction was driven by differences in children's responses to WH compared to suggestive questions across age, $F(1, 28) = 4.50$, $p = .043$, $\eta_p^2 = .138$.

Regarding the attorney by age interaction, correlations revealed that, with increasing age, children elaborated more to prosecutor questions, $r = .47$, $p = .002$, but not to defense attorney questions. Regarding the question type by age interaction, children elaborated more to WH and option posing questions with age, $rs = .40, .39$, $ps = .009, .011$ (no age increases were evident for elaborations to suggestive questions)[2]. Next, again to explore the declarative question category further, an ANCOVA was repeated examining only suggestive questions, divided by declarative

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[2] Because not all attorneys asked all question types for each case, the power of the full model was greatly reduced (N = 31). Therefore, follow up mixed model ANCOVAs were conducted collapsing across attorney (N = 41), and collapsing across question type (N = 41). The results were similar to the full model.

and traditional suggestive categories (tag and negative term questions), as the repeated question

type category. There were no differences in any analyses by suggestive question category.

Finally, to examine patterns across individual question and response pairs, sequential

analyses were conducted examining (1) how the type of question asked related to the

productivity of the child's response to that question and (2) how the productivity of the child's

response related to the type of question that immediately followed. Yule's Q is presented to

represent the likelihood of question-response and response-question patterns accounting for

differences in base rates, as has been done in prior studies comparing interviewer questions to

children's responses (Gilstrap & Ceci, 2005). Yule's Q is a measure of effect size with positive

values (approaching 1) indicating frequencies higher than expected and negative values

(approaching -1) indicating frequencies lower than expected.

Children were more likely to elaborate than not following WH questions (mean Q = .33),

and less likely to elaborate than not following option posing and suggestive questions (mean Qs

= -.20, -.40). To examine whether these patterns were unlikely to have been due to chance, one-

tailed sign tests were conducted on all cases with non-zero Q scores. For all three question types,

the majority of cases had Q values in the same direction as the mean, WH questions: 33/41 cases,

$p < .001$; option posing questions: 29/40 cases, $p < .001$; suggestive questions: 35/40 cases, $p <$

.001. Thus, chance responding was not likely to be driving the evident trends. Of interest,

however, children's elaborations had no effect on the format of attorneys' subsequent questions

(all ps > .05).

Discussion

In the present study, we systematically examined the relations between attorney questions

and children's response productivity while testifying in-court during a criminal trial resulting

from alleged sexual abuse. We utilized a novel coding scheme to capture children's productivity, and to investigate a frequently used, but often overlooked, category of suggestive questioning. We applied this scheme to two carefully matched groups of cases, one ending in convictions and the other in acquittals, thereby allowing us to understand how several variables of interest relate to an important real world outcome with far reaching implications.

Attorney Questions

Findings regarding attorney questioning of child witnesses replicated previous work demonstrating differences in questioning strategies between defense attorneys and prosecutors, specifically in terms of leading/suggestive questions (Zajac & Cannan, 2009; Zajac & Hayne, 2003). We also extended previous findings regarding attorney questioning strategies for child and adult witnesses (Zajac & Cannan, 2009), by examining how questioning strategies varied across child age. We found that defense attorneys and prosecutors demonstrate similar shifts in their questioning strategies based on the age of the child witness. Both types of attorneys used higher proportions of suggestive to option posing questions as children got older. This finding was unexpected given that attorneys are often given more leeway with suggestive questions when a witness is younger because it is believed that these questions help young children provide a response (Mueller & Kirkpatrick, 2009). Perhaps, with younger children, option-posing questions are sufficient to control responses, rendering the more suggestive questions unnecessary. With older children, suggestive questions may be needed to control the direction of the in-court testimony more generally.

It may also be that option posing questions do not help contribute to the story line being proposed by the defense or prosecution, making these questions less helpful than suggestive questions. The latter often imply the story in the question itself. Attorneys may decrease their

use of option posing questions when they are more confident in the witness' ability to provide an

expected response without direct prompting and increase their use of suggestive questions when

they are more confident in their own narrative of how the event unfolded and thus ask questions

which include their own interpretations and minimize children's responses.

Findings also revealed the importance of moving toward an updated or modified question

type classification scheme. We discovered that declarative questions, which have not

traditionally been of particular interest in the literature concerning interviewing child witnesses,

are used frequently by attorneys, particularly by defense attorneys, and may function like

suggestive questions to minimize children's responses. These questions could be classified as

suggestive in the NICHD protocol because they imply the desired response from the child, but

they are not mentioned explicitly (Lamb et. al., 2007). Hence they could also be classified as

option-posing or as a "summary" statement. In some other recent work concerning question

forms in forensic interviews, declarative questions were classified as rephrasing/paraphrasing

questions (Evans & Roberts, 2009; Evans et al., 2010). Future research should examine

experimentally the nature (or possibly natures) of attorney and interviewer declarative questions

and the potential suggestive impact that they have.

Finally, what attorneys say while questioning children in court matters, here, seemingly

more so than children's responses. While children's responses were neither directly nor

indirectly related to case outcome, attorneys' questions were. Furthermore, attorney questioning

was predictive of response productivity, while children's productivity was not predictive of

attorney questioning. Together, our findings suggest that juries may be more sensitive to

information provided by attorneys (both in statements and in questions to children) than to

information provided by children when making case decisions and that attorney questions were

not reflective of children's in-court performance. Cases that ended in acquittals were characterized by lower rates of option posing questions and higher rates of suggestive questions by defense attorneys out of all the questions posed to the child. The same was true for prosecutor question rates in cases ending in convictions. There were no differences by case outcome when each attorney's questioning was considered separately. Thus, perhaps attorneys need not be concerned about whether jurors perceive them as leading the witnesses. When they increased their use of suggestive questions more than did the opposing counsel, the case was more likely to end in a favorable outcome. When both attorneys similarly scaled their use of suggestive questions there was no impact on case outcomes. Suggestive questions may allow the attorneys to best present their case. This finding is disturbing given that suggestive questions led to the most minimal responding and have been consistently shown to cause inaccurate responding, particularly in children (e.g. Ceci & Bruck, 1993). Future work should further explore why this trend emerged in the current study, particularly given the small number of cases.

Together the findings demonstrate key differences between prosecutors and defense attorneys, as well as age-related differences in questioning that might be expected to influence children's responding. The findings also suggest that variations in attorney questioning relate to whether attorneys achieve their desired case outcomes.

Child Responses

Our findings revealed that how children's productivity is coded alters conclusions about the relations between question types and productivity. The vast majority of previous research, especially research related to the development of the NICHD interviewing protocol, touts the benefits of WH questions above the benefits of option-posing questions for children's productivity (Orbach, Hershkowitz, Lamb, Sternberg, Esplin, Horowitz, 2000). Our findings

suggest, however, that accounting for the grammatical structure of questions when coding

children's responses reduces the differences in children's productivity between WH and option

posing questions. While WH questions were most likely to elicit at least one elaboration in a

child witness's response, children's overall productivity did not vary between transcripts with

high proportions of WH questions and high proportions of option posing questions. This pattern

may also reflect contextual constraints in the courtroom setting which would not be evident in

forensic interviews and laboratory settings. By design, courtroom settings limit elaborate

narratives.

       The findings also demonstrated important interactions between attorney factors and child

age on children's response productivity. Younger children tended to produce brief responses

regardless of which attorney questioned them and regardless of the type of question asked.

However, and of importance, no attorney in our sample asked any "invitations": Open ended

prompts that do not include cues, such as "tell me everything that happened…", the type of

questions which previous research has shown is the most facilitative of children's productivity

(Lamb et al., 2007). In fact, invitations might not be expected in court, as they may be considered

objectionable precisely because they are "calling for a narrative" (Friedland & Sahl, 2012).

       With age, however, children were more productive when questioned by prosecutors,

perhaps because their increased understanding of the legal process encouraged their trust and

comfort with these professionals. Alternatively, older children may have elaborated more to

prosecutors because they (unlike younger children) recognized the higher proportion of WH

questions that these attorneys asked and inferred that the prosecutors wanted to know more

overall. This is consistent with our finding that children did elaborate more to WH and option-

posing questions (most commonly used by prosecutors). With development, children's

productivity was more sensitive to question format, particularly when comparing WH and option posing to suggestive.

Finally, and of note, there were no differences in any of the analyses between the declarative and traditional suggestive question categories and children's productivity. Children's productivity across age was similarly low in response to declarative questions and traditionally suggestive questions.

Strengths and Limitations

Because the present study focused on attorneys' and children's actual in-court performance, we were limited in assessing directionality of findings and were unable to directly measure the accuracy of children's responses. In terms of directionality, it will be important to conduct follow up studies which include experimental manipulations that assess the effects of variations in question types (particularly declarative questions) on children's productivity. Nonetheless, sequential analyses strongly suggest that children's responses are driven by variations in attorney questions and not the reverse. In terms of the accuracy responses, certainly children's accuracy is of critical importance to the legal system. While there is considerable previous research demonstrating the effects of question format on children's accuracy (Ceci & Bruck, 1993) future work should specifically explore the impact of declarative questions on children's accuracy.

Finally, the study was limited in that we did not compare question-response relations across varying event content. For example, it is possible that children may demonstrate different levels of productivity to questions asking about neutral, compared with abuse-related, content. Jurors may also put different weight on children's responses to questions of varying content. However, we were careful to code for, and to limit our analyses to, questions and responses

concerning abuse allegations rather than peripheral, neutral content (e.g. questions establishing

the child's identity or procedural information). This facilitated focus specifically on testimonial

evidence regarding the allegations, which should be most relevant to juror decisions and

therefore, most relevant to the goals of the present study.

Of note, the limitations inherent in the study were necessary in order to attain the high

ecological validity of the design. We were able to explore the nature of attorney-child

interactions in court, and of critical importance, examine how these factors relate to the real-

world outcome of child sexual abuse case decisions. Such an exploration would not be possible

without the use of actual in-court transcripts of attorney questions and children's answers.

Conclusions

In closing, the present findings contribute to the developmental literature by

demonstrating how children's reporting of past events may be influenced by the immediate recall

environment and importantly, that the nature of this influence changes with age. Findings also

inform our understanding of attorneys' and children's behavior in the courtroom, and how this

behavior affects juror decisions. Thus, these results have concrete implications for understanding

children's recall abilities and factors relating to legal cases involving child witnesses.

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Tables

Table 1. *Case descriptives.*

	Convictions	Acquittals
Age	M = 11.86, SD = 2.92	M = 12.10, SD = 2.95
Allegation Type	Mode = Genital-genital intercourse Range = No physical contact - Sodomy	Mode = Genital-genital intercourse Range = Fondling over clothes – Simulated or attempted sodomy
Relationship to Alleged Perpetrator	29% Relative 24% Stepfather or Mother's Boyfriend 48% Neighbor/Stranger/Other	24% Relative 24% Stepfather or Mother's Boyfriend 52% Neighbor/Stranger/Other
Number of Incidents	71% multiple incidents	71% multiple incidents

Table 2. *Question type descriptives.*

	Defense Attorneys			Prosecutors		
Question Type	Mean	SD	%	Mean	SD	%
WH	16.21	40.18	21	44.45	38.89	38
Forced Choice	3.62	7.12	5	7.95	7.39	7
Yes-No	21.98	39.75	29	43.88	30.23	37
Negative Term	0.45	1.06	1	0.17	0.49	0
Tag	9.05	14.46	12	1.88	2.8	2
Declarative	22.29	52.29	29	13.6	19.67	12
Implied Yes-No	2.64	6.23	3	5.74	6.59	5

Table 3. *Answer type descriptives.*

	Defense Attorneys			Prosecutors		
Answer Type	Mean	SD	%	Mean	SD	%
Simple	65.22	130.74	69	106.02	83.66	62
Elaborated	20.98	50.73	22	57.43	102.92	34
Don't Know	4.93	11.96	5	2.69	2.97	2
No Response	1.98	4.65	2	1.76	2.32	1
Repeated	1.76	3.31	2	2.33	3.55	1

Figure Captions

Figure 1. Bar graph showing the proportion of defense attorney questions by question

type in cases ending in acquittals and convictions.

Figure 2. Bar graph showing the proportion of prosecutor questions by question type in

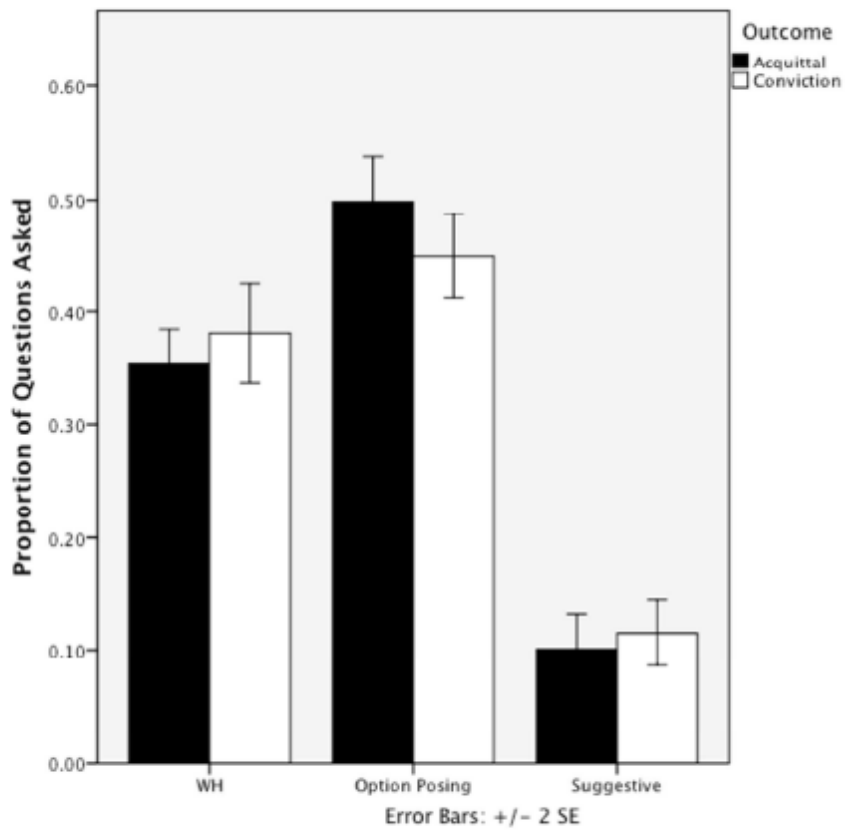cases ending in acquittals and convictions.

Figure 1.

Figure 2.