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Subjective and Non-subjective Information in Children's Allegations of Abuse

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Abstract

In this study, we were interested in how interviewers elicit subjective information in investigations of child abuse (e.g., descriptions of thoughts, emotions, opinions). Sixty-one interviews of children aged 4-12 years old were analyzed to determine the amount of subjective information versus non-subjective event details reported, and the type of question that elicited the information. Interviewers elicited more non-subjective than subjective information, although there was more focus on subjective information in the rapport-building phase than in the substantive phase when the allegations were elicited. Interviewer prompts and child responsiveness was congruent such that non-subjective questions elicited more non-subjective information, and subjective interviewer questions elicited more subjective information. The presence of subjective information in children's testimony can influence children's credibility, and the results of this study demonstrate that forensic interviewers play a significant part in the level of subjective information children provide.

Keywords: interviewer; child abuse; forensic interview; affect, reality monitoring

1. INTRODUCTION

As many allegations of child abuse do not contain supporting physical evidence, the information provided by children in investigative interviews is of great importance for the successful prosecution of the perpetrators of abuse. Over the last few decades there has been a movement to develop techniques and protocols that increase the amount of *event* information that children can report in cases of alleged child abuse (e.g., see Lamb et al., 2008; Poole & Lamb, 1998; Price & Roberts, 2011). Yet, *subjective* information in investigative interviews (e.g., emotions and thoughts related to the alleged events) is sometimes used to bolster children's credibility. For example, jurors, attorneys, judges, and police officers use their expectations of the level of emotionality displayed by children to assess children's credibility (Field et al., 2010; Golding, et al., 2003; Leander, et al., 2007). In Statement Validity Analysis (Raskin & Esplin, 1991; Undeutsch, 1982; Yuille, 1988), descriptions of thoughts and feelings are considered to be an indicator of credibility. According to reality-monitoring theory (Johnson et al., 1993; Johnson & Raye, 1981), memories of events that have actually occurred *should* contain information about emotions at the time of the event and, indeed, children's allegations of abuse do contain such information (Roberts & Lamb, 2010). Thus, the presence of personal, subjective information in children's reports serves numerous important functions.

1.1. The Quality of Children's Memory Reports

The amount of event information children report is dependent on the style and quality of the interview techniques used. Interviewers who rely predominantly on open-ended narrative elicitation devices (e.g., *Tell me everything that happened; Tell me more*) typically elicit longer responses than interviewers who rely on more focused questions (e.g., *What was his name? When did he do that?*) (e.g., Lamb et al., 2008; Orbach et al., 2000; Price & Roberts, 2011; Price,

Roberts & Collins, 2013). When interviewers request generic information about events that have been repeated, children give generic accounts (e.g., *he usually waits by the door*); conversely, when requests for incident-specific information are made, children provide such information (e.g., *He waited by the door*) (Brubacher et al., 2012; Schneider et al., 2011). Thus, interviewing techniques have a major influence on the type of information children provide (Lamb et al., 2003; Larsson & Lamb, 2008), which in turn, may influence subsequent prosecution (Pipe, Orbach, Lamb, Abbott, & Stewart, 2012). This stems from the fact that investigative interviews are a dyadic interaction (Gilstrap et al., 2008), meaning that interviewers' behavior may be as important in eliciting information as children's willingness to provide such information. In sum, many studies on children's testimony in investigations have shown the responsiveness of children to different types of interviewer requests.

Despite understanding the interactive exchange when eliciting event-based (or 'non-subjective') information, we know little about the interactions when interviewers specifically elicit affective and cognitive information from children. Although non-subjective information about what allegedly happened is clearly important to how abuse cases progress, the role of personal, emotional and cognitive information from alleged child victims is also important yet has rarely been studied. Given that such subjective information is sometimes used to assess the truthfulness of the allegations both in investigations (Pezdek et al., 2004) and potentially in court (Field et al., 2010; Golding et al., 2003; Leander et al., 2007; Regan & Baker, 1998), this is a significant omission. It cannot be assumed that children are able to provide subjective information 'on demand' without conducting a scholarly analysis. Indeed, there are several types of requests in investigative interviews that may cause some difficulty for children (e.g., describing temporal information such as when the event occurred and its duration; Roberts &

Evans, 2008). We therefore investigated children's responsiveness when interviewers request subjective information in investigative interviews of abuse.

1.2. Subjective Information in Children's Reports

Investigation of the qualitative characteristics of memory reports has been guided by 'reality-monitoring theory' (Johnson et al., 1993; Johnson & Raye, 1981), which we will now discuss. According to Johnson and colleagues (Johnson et al., 1993; Johnson & Raye, 1981), reality monitoring is the process by which people use strategies to determine whether their memories originated from either external sources (i.e., through actual experience like seeing or hearing) or internal sources (i.e., obtained through reasoning, imagination, or thoughts). According to reality-monitoring theory, memories generated from external sources that are actually experienced contain more contextual, sensory, affective and semantic information than memories obtained from internal sources. Internal memories, in contrast, appear to produce more information associated with cognitive operations (such as the thought processes used in the construction of fantasies and inferences of events) (McGinnis & Roberts, 1996; Otgaar et al., 2010). As noted earlier, the inclusion of perceptual, contextual, and affective information in children's accounts is sometimes taken to be an indicator of truthfulness (Raskin & Esplin, 1991).

Children's reports in lab-based studies where they are typically asked to either describe an event they have witnessed or concoct a false story are somewhat consistent with reality-monitoring theory. For example, Alonso-Quecuty (1995) found that children's reports of a staged event contained more sensory information than deliberately fabricated accounts of such an event, as predicted, but the true statements also contained *fewer* contextual and semantic details, contrary to prediction. Similarly, Santilla, Roppola, and Niemi (1999) found that reports of

personally-experienced events (e.g., getting an injection) contained more sensory and temporal information, but also *less* affective information than did reports of imagined events. These studies in general find that children's reports of actual events correspond with reality-monitoring theory (i.e., contain sensory information), but it is not clear how affective information figures in children's memories and imaginations. Children in these studies were describing staged events, but little is known about the qualitative differences in children's responses in relation to *actual* allegations of abuse as opposed to memories of events contrived in laboratory settings.

Recently, Roberts and Lamb (2010) compared the presence of reality-monitoring criteria in children's allegations of abuse that were confirmed (i.e., external sources) with those judged to be doubtful (i.e., internal sources such as imagination). Their results supported qualitative differences outlined by reality-monitoring theory but there were some new findings not paralleled in lab studies. Accounts of confirmed abuse from children aged 3-16 typically included more perceptual, contextual and affective information than allegations deemed doubtful, as expected, but also more cognitive operations (e.g., evidence of reasoning, awareness of mental operations usually more typical in descriptions of events that have not happened). The difference was particularly apparent with younger children and this result is relevant to the study of subjective information in children's reports. Roberts and Lamb (2010) hypothesized that by age 9 or 10, children may understand what types of information are indicative of a real or experienced event and may convincingly fabricate the details of an imaginary event in order for their account to be perceived as real. Compared to memories of events staged by researchers, memories of abuse comprise substantial personal significance, which may affect the amount of affective, and cognitive (i.e., subjective) information reported by children. This may explain why Roberts and Lamb (2010) found that *both* thought and affect were present in reports of events

that likely happened. To the authors' knowledge, the Roberts and Lamb (2010) study is currently the only investigation focused on subjective characteristics in abuse allegations and more research with this population is clearly needed.

In sum, the studies reviewed above demonstrate that (1) the type of questions asked by interviewers influence the type of information provided by children, and (2) reports of abuse that are highly likely to have occurred may contain both subjective and non-subjective information, unlike reports from analog studies. In the current study, interviews by police and social workers of children suspected of being abused were investigated to systematically assess how subjective versus more non-subjective (event) information was elicited. We expected that older children (aged 9 years +) would describe both subjective and non-subjective information given the results reported by Roberts and Lamb (2010). We also expected children to be responsive to interviewer requests (in keeping with previous research on the elicitation of different types of information, e.g., Brubacher et al., 2012; Schneider et al., 2011) and provide a greater amount of non-subjective information to questions such as *Tell me more about what happened* and, in contrast, more subjective information to questions like *What were you feeling when ...?* and *Why did he do that?* Although younger children can clearly provide event information (e.g., Lamb et al., 2008), in the Roberts and Lamb study, they provided fewer subjective details than the older children. Thus, it is uncertain whether the younger children will be responsive to probes for subjective information given that there are countless examples of young child witnesses *not* being responsive to questions probing abstract concepts (e.g., children sometimes respond to abstract 'why?' questions with irrelevant information or details that do not effectively address the question, Poole & Lamb, 1998).

2. METHOD

2.1. Sample

Sixty-one interviews of children's allegations of abuse were analyzed in the current study (four other cases were excluded as they did not include any subjective interviewer questions). All interviews were conducted by police officers ($n=2$) or social workers ($n=15$) in a large metropolitan area in Canada. The interviewers participated in the same training program and all interviews in which an allegation was made (95%) were included. Children's ages were available only if the interviewer mentioned this in the interview (approximately half of the sample). Those children ranged from four to thirteen ($M = 8$ years) and 52% were male. The allegations included hitting, sexual assault, and fighting and were overwhelmingly against the father. Full ethical approval was attained and the interviewers and families gave informed consent for the interviews to be used in research.

2.2. Materials, Procedure and Coding

As the interviewers had been trained in using an interview protocol based on the NICHD protocol (Lamb et al., 2008), the interviews could be easily divided into a pre-substantive (e.g., rapport building) and substantive (i.e., discussing the allegations) phase by trained research assistants (RAs). RA decisions were verified by the primary researcher.

2.2.1. Interviewer Questions. Questions were coded as 'non-subjective' if they asked for relatively non-subjective information and did not ask the child to make a judgment (e.g., "Tell me about what you did today", "Do you know why I'm here today?", "Tell me what happened with R."). A subjective question was defined as one that required the child to make a personal judgment such as asking about emotions, likes, dislikes, preferences, thoughts, or opinions (e.g.,

“Why do you think he did that?”, “How did you feel?”, “What is your favorite part of school?”, “Does your mom get along with your step dad?”).

2.2.2. Children’s Responses. Each new piece of information provided by the child was identified and coded as non-subjective or subjective. A new piece of information was operationalized as a single detail that contributed information about the event and that had not yet been mentioned by either the child or interviewer. Repeated details were not counted as they could not, by definition, provide any further forensically-relevant information. Responses were coded as non-subjective if the child provided relatively non-subjective information that was free of value judgements, such as, “We went to the store to get some food”. Responses were coded as subjective if it included one of the following four criteria: affective words or acquiescence to a question about how the child was feeling (“I was really scared”); a response to a hypothetical situation (“I would call the police if I needed help”); a response that was indicative of a subjective reflection on a personal experience (“that was a bad day for me”); or an opinion/judgment (“I think they get along well”).

Separate Cohen’s Kappa inter-rater reliability tests were conducted on the first five coded interviews to analyze the rate of agreement regarding interviewer utterances (non-subjective, subjective) and child utterances (non-subjective, subjective) for two raters. Kappa was .83 and .92 for interviewer and children’s utterances, respectively, indicating a high association between the two raters. Cohen’s kappa was calculated again when the entire sample had been coded (on 5 randomly-selected transcripts) and levels of reliability were consistently maintained (Kappas .82 and .90, respectively). All disagreements were discussed and resolved.

3. RESULTS

3.1. Proportional Scores

Four proportion scores were developed to assess the impact of the type of interviewer question (non-subjective/subjective) on the type of child response (non-subjective/subjective). Raw numbers could not be used as each interview contained a different number of questions. These proportions (see below) therefore ensured that differences in the numbers of interviewer questions across interviews were controlled. Each score provided an index of the number of child details each prompt elicited *on average*. The first proportion detailed the number of non-subjective details provided by the child in response to non-subjective interviewer questions. For example, if the interviewer asked a child five non-subjective questions, and the child provided 10 non-subjective details, the proportion here would be 2.00 (10 details/5 questions). That is, this child provided an average of 2 details for each non-subjective question she was asked. The second proportion showed the number of subjective details provided by the child in response to non-subjective interviewer questions. The third proportion showed the number of child-provided non-subjective details in response to subjective interviewer questions, and the fourth proportion showed the number of child-provided subjective details in response to subjective interviewer questions.

The mean proportions of information provided by children in response to interviewer questions are presented in Table 1. As can be seen, children were generally responsive to interviewer requests. Proportional scores were higher in congruent situations (e.g., responding to a subjective question with subjective information) than when the situation was incongruent (e.g., responding to a subjective question with non-subjective details). This was true in both the presubstantive and substantive phases of the interviews.

3.2. Types of Interviewer Questions

In the *pre-substantive* phase of the interview, interviewers requested non-subjective information ($M = 27.07$ questions, $SD = 22.71$, Range 4-107) more than four times as much as they requested subjective information ($M = 7.26$ questions, $SD = 6.82$, Range 0-35). This difference is amplified in the *substantive* interview phase, with interviewers requesting non-subjective information ($M = 76.67$ questions, $SD = 61.33$, Range 6-417) more than seven times as much as subjective information ($M = 10.21$ questions, $SD = 9.18$, Range 0-41).

3.3 Types of Details Given in Response to Interviewer Questions

To see how informative children were in response to both factual and subjective questions, the child response variables were entered into a 2 (Interview Phase: Presubstantive, Substantive) x 2 (Interviewer request: Non-Subjective, Subjective) x 2 (Child response: Non-Subjective, Subjective) repeated-measures analysis of variance (ANOVA).

Results indicated a main effect of interview phase as the children were slightly more informative in the pre-substantive phase ($M = 1.77$, $SD = .17$) than in the substantive phase ($M = 1.44$, $SD = .18$), $F(1,49) = 6.83$, $p = 0.12$, $\eta_p^2 = 0.12$. There was also an effect of child response because children provided a greater amount of non-subjective ($M = 2.10$, $SD = .27$) than subjective details ($M = 1.1$, $SD = .10$), $F(1,49) = 15.66$, $p < .001$, $\eta_p^2 = 0.24$. Of particular interest, however, was the finding of a statistically significant interaction between child response and the type of interviewer question, $F(1,49) = 150.99$, $p < .001$, $\eta_p^2 = 0.75$. Children responded to non-subjective requests from the interviewer with a greater proportion of non-subjective ($M = 3.04$, $SD = .33$) than subjective information ($M = .34$, $SD = .06$), but responded to requests about subjective information with a greater proportion of subjective ($M = 1.87$, $SD = .18$) than non-

subjective information ($M = 1.20$, $SD = .24$). All other effects and interactions were non-significant, $ps > .05$.

4. DISCUSSION

The purpose of this study was to focus on the presence of subjective information in children's allegations of abuse, an issue that has received little attention. We systematically tracked whether forensic interviewers probed non-subjective or subjective information, and whether child witnesses responded in kind. It was found that the type of question the interviewer asked was followed by an appropriate response from the child. Specifically, requests for non-subjective information were more often followed by non-subjective, rather than subjective, responses; similarly, subjective questions were more often followed by subjective, rather than non-subjective, responses. These results support the findings of Roberts and Lamb (2010) showing that children can provide subjective information, both affective and cognitive, during investigative interviews of alleged child abuse. The responsiveness of the children to requests for different types of information was notable. Even the youngest children in the sample had access to subjective and non-subjective information and were able to communicate this abstract information in a clear and transparent way (at the very least, reports were clear enough that we could reliably code the content as subjective or non-subjective).

Although interviewers may be aware of the different responses evoked from different question types when interviewing adults, children do not always respond in the same way that adults do. Research on child interviewing has documented topics that pose some difficulty for children, for example, the precise nature of sexual touching from one incident to another (Roberts & Evans, 2008) and other abstract concepts (e.g., 'why' questions, Poole & Lamb, 1998; time questions, Friedman, 1992). Thus, requesting subjective information does not

necessarily mean that children can or will provide that information, but the results of the current study demonstrate that indeed children can and do provide such information when asked.

The interviewers focused on eliciting non-subjective (event) information more than subjective information. This makes sense given that the purpose of an investigative interview is to discover what (if anything) has happened. It was also notable, however, that 21% of questions in the pre-substantive phase requested subjective information, but only 11% did so in the substantive phase. Possible explanations for this switch in strategy may be that interviewers focus on social factors in the pre-substantive phase (e.g., getting to know the child, making sure child feels comfortable) but on event factors in the substantive phase. While this is not in itself problematic, it is important to consider the purpose of the pre-substantive phase. Experts recommend that interviewers ask children about a recent event in the pre-substantive phase so that children are practised in giving narrative responses to open-ended questions (see Brubacher et al., 2011). The interviews in the current study were somewhat unbalanced in that, proportionally, the interviewers requested almost twice as much subjective information in the pre-substantive phase than the substantive phase. Most requests were for factual (non-subjective) information in the substantive phase. This raises issues about exactly what type of information children are being trained to report, and may limit the effectiveness of the practice interview if its aims are not congruent with the demands in the substantive phase.

As the children were so responsive, interviewers can carefully consider what type of information they will request from child witnesses. When interviewers requested subjective information, children provided subjective information; requests for non-subjective information were followed with the child providing non-subjective details. Most research on forensic interviews has focused on the structure of questions (i.e., whether they were open- or closed-

ended, e.g., Lamb et al., 2008; Price & Roberts, 2011), but it might also be helpful for investigative interviewers to be aware of the influence they can have over the *type* of information children report. Appropriate affect when describing abuse may bolster children's credibility thus raising the likelihood that the investigation continues. In the courtroom, the presence of affect may influence judges and juries (e.g., Leander et al., 2007; Schmidt & Brigham, 1996). In contrast, the presence of information about thoughts and reasoning may cast doubt on children's testimony given that adults treat the presence of this information to be indicative that an event did not actually happen (Johnson & Raye, 1981). Further research is needed, therefore, to reliably determine whether this is true in memories of personally significant events (versus adults' memories of contrived lab events). It should be noted that it was not possible for us to catalog the accuracy of children's responses about event or subjective information, as these were statements from investigations and not statements given in a laboratory setting where accuracy could be checked. It would be an important next step, however.

In sum, it is important that interviewers understand the association between the kinds of questions they ask and the information likely to be elicited from alleged child victims of abuse. Since the type of information provided by a child may have a bearing on the assessed truthfulness of the information elicited, further research could examine how different *types* of information requests affect the quality and credibility of children's testimony.

5. REFERENCES

- Alonso-Quecuty, M. L. (1992). Deception detection and reality monitoring: A new answer to an old question? In Loösel, F., Bender, D., & Bliesener, T. (eds.), *Psychology and Law: International Perspectives*, Walter de Gruyter, Berlin, pp. 328–332.
- Brubacher, S. P., Roberts, K. P., & Powell, M. B. (2012). Retrieval of episodic versus generic information: Does the order of recall affect the amount and accuracy of details reported by children about repeated events? *Developmental Psychology*, *48*, 111-122.
- Brubacher, S. P., Roberts, K. P., Powell, M. B., & Price, H. L. (2011). Practice narratives. In Lamb, M. E., La Rooy, D. J., Malloy, L. C., and Katz, C. (eds.), *Children's Testimony: A Handbook of Psychological Research and Forensic Practice*. John Wiley & Sons Ltd, Chichester, UK, pp. 129-234.
- Field, T., Malphurs, J. E., Yando, R., Bendell, D., Carraway, K., & Cohen, R. (2010). Legal interviewers use children's affect and eye contact cues to assess credibility of their testimony. *Early Child Development and Care*, *180*, 397-404.
- Friedman, W. J. (1992). Children's time memory: The development of a differentiated past. *Cognitive Development*, *7*, 171-187.
- Gilstrap, L. L., Laub, C., Zierten, E. A., & Mueller-Johnson, K. U. (2008). The effects of adult suggestion and child consistency on young children's reports. *Journal of Applied Social Psychology*, *38*, 1905–1920.
- Golding, J. M., Fryman, H.M., Marsil, D. F., & Yozwiak, J. A. (2003). Big girls don't cry: The effect of child witness demeanor on juror decisions in a child sexual abuse trial. *Child Abuse and Neglect*, *27*, 1311-1321.
- Johnson, M. K., Hashtroudi, S., & Lindsay D. S. (1993). Source monitoring. *Psychological*

Bulletin, 114, 3-28.

- Johnson, M. K., & Raye, C. L. (1981). Reality monitoring. *Psychological Review, 88, 67-85.*
- Lamb, M. E., Hershkowitz, I., Orbach, Y., & Esplin, P. W. (2008). *Tell me what happened: Structured investigative interviews of child victims and witnesses.* Hoboken, NJ: John Wiley and Sons Inc.
- Lamb, M. E., Sternberg, K. J., Orbach, Y., Esplin, P. W., Stewart, H., & Mitchell, S. (2003). Age differences in young children's responses to open-ended invitations in the course of forensic interviews. *Journal of Consulting and Clinical Psychology, 71, 926-934.*
- Larsson, A. S., & Lamb, M. E. (2008). Making the most of information-gathering interviews with children. *Infant and Child Development, 18, 1-16.*
- Leander, L., Christianson, S. Å., Svedin, C. G., & Granhag, P. A. (2007). Judges', lay judges', and police officers' beliefs about factors affecting children's testimony about sexual abuse. *Journal of Psychology: Interdisciplinary and Applied, 141, 341-357.*
- McGinnis, D., & Roberts, P. (1996). Qualitative characteristics of vivid memories attributed to real and imagined experiences. *The American Journal of Psychology, 109, 59-77.*
- Orbach, Y., Hershkowitz, I., Lamb, M. E., Sternberg, K. J., Esplin, P. W., and Horowitz, D. (2000). Assessing the value of structured protocols for forensic interviews of alleged child abuse victims. *Child Abuse and Neglect, 24, 733-752.*
- Otgaar, H., Candel, I., Memon, A., & Almerigogna, J. (2010). Differentiating between children's true and false memories using reality monitoring criteria. *Psychology, Crime, and Law, 16, 555-566.*
- Pezdek, K., Morrow, A., Blandon-Gitlin, I., Goodman, G. S., Quas, J.A., Saywitz, K. J., ... Brodie, L. (2004). Detecting deception in children: Event familiarity affects criterion-based content analysis ratings. *Journal of Applied Psychology, 89, 119-126.*

- Pipe, M., Orbach, Y., Lamb, M. E., Abbott, C. B., & Stewart, H. (in press). Do case outcomes change when investigative interviewing practices change? *Psychology, Public Policy, and Law*.
- Poole, D. A., & Lamb, M. E. (1998). *Investigative interviews of children: A guide for helping professionals*. Washington, DC: American Psychological Association.
- Price, H. L. & Roberts, K. P. (2011). The effects of an intensive training and feedback program on police and social workers' investigative interviews of children. *Canadian Journal of Behavioural Science, 43*, 235-244.
- Price, H. L., Roberts, K. P., & Collins, A. (2013). The quality of children's allegations of abuse in investigative interviews containing practice narratives. *Journal of Applied Research in Memory and Cognition, 2*, 1-6.
- Raskin, D., & Esplin, P. (1991). Statement validity assessment: Interview procedures and content analysis of children's statements of sexual abuse. *Behavioral Assessment, 13*, 265-291.
- Regan, P. C., & Baker, S. J. (1998). The impact of child witness demeanor on perceived credibility and trial outcome in sexual abuse cases. *Journal of Family Violence 13*, 187-195.
- Roberts, K.P., & Evans, A.D. (2008). Protecting alleged victims of child abuse in adult-based judicial systems. In T. O'Neill & D. Zinga (Eds.). *Children's Rights: Theory, Policy, and Practice* (pp.195-215). Toronto, ON: University of Toronto Press.
- Roberts, K. P., & Lamb, M. E. (2010). Reality-monitoring characteristics in confirmed and doubtful allegations of child sexual abuse. *Applied Cognitive Psychology, 24*, 1049-1079.
- Santilla, P., Roppola, H., & Niemi, P. (1999). Assessing the truthfulness of witness statements made by children (aged 7-8, 10-11, and 13-14) employing scales derived from Johnson and Raye's model of Reality Monitoring. *Expert Evidence, 6*, 273-289.

- Schmidt, C. W., & Brigham, J. C. (1996). Jurors' perceptions of child victim-witnesses in a simulated sexual abuse trial. *Law and Human Behavior, 20*, 581-606.
- Schneider, L., Price, H. L., Roberts, K. P., & Hedrick, A. M. (2011). Children's episodic and generic reports of alleged abuse. *Applied Cognitive Psychology, 25*, 862-870.
- Schooler, J.W., Gerhard, D., & Loftus, E. F. (1986). Qualities of the unreal. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 12*, 171-181.
- Undeutsch, U. (1982). Statement reality analysis. In Trankell, A. (ed.), *Reconstructing the Past*, Norstedt, pp. 27-56.
- Yuille, J. C. (1988). The systematic assessment of children's testimony. *Canadian Psychology, 29*, 247-262.

Table 1

Mean Proportions of Information (and SEs) Provided by Children in the Pre-Substantive and Substantive Sections of the Interviews

Interview phase	Question type	Response type	<i>M</i>	<i>SE</i>	95% CI
Pre-substantive	Non-subjective	Non-subjective	3.11	.30	[2.50, 3.72]
		Subjective	.52	.10	[0.33, 0.71]
	Subjective	Non-subjective	1.35	.28	[0.79, 1.90]
		Subjective	2.11	.28	[1.56, 2.66]
Substantive	Non-Subjective	Non-Subjective	2.90	.41	[2.10, 3.72]
		Subjective	.18	.03	[0.11, 0.24]
	Subjective	Non-subjective	1.05	.28	[0.49, 1.61]
		Subjective	1.62	.17	[1.29, 1.95]