Pursuing "the Truth, the Whole Truth, and Nothing but the Truth"

Forensic Interviews with Child Victims or Witnesses of Abuse

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Maltreatment is widely recognized as one of the more serious forms of trauma that children experience, and there is now a substantial literature documenting its adverse effects on children's behavior and adjustment. Yet often in cases of maltreatment such as sexual, emotional, or physical abuse, the child victim is the only available source of information about what has happened. How well, then, do children remember and report such stressful, painful, and/or distressing experiences when they are victims of, or indeed even witnesses to, traumatizing experiences (for example, the homicide of a parent or sibling)? Because of the importance of children's accounts of such experiences for intervention (both legal and clinical), many researchers, especially in the last decade, have examined children's memories of abusive incidents. Our goal in this chapter is to review our current understanding of children's abilities to recall and recount instances of abusive experiences, particularly in the course of
an investigation where "the truth, the whole truth, and nothing but the truth" is of paramount importance.

In pursuing "the truth" about an alleged instance of child abuse, the ability of the alleged victim to give a clear and comprehensive account of his or her experience is crucial, because corroborating or alternative sources of information are frequently unavailable. Eliciting "the whole truth" while at the same time ensuring that it is "nothing but the truth" is especially challenging for forensic interviewers because children's spontaneous accounts of their experiences are typically too brief to be useful in forensic interviews, and yet the pursuit of more detailed information may lead to errors in recall and reporting. These issues speak to both the completeness and the accuracy of the elicited testimony. Over the past 25 years it has become abundantly clear that both the amount and the reliability of information reported by children may be enhanced or reduced by several factors, including those pertaining to the developmental level of the child, characteristics of the event in question, and techniques used by interviewers to elicit testimony. In this review, we discuss how the amount and quality of information elicited in forensic interviews with children reflects the behavior and capacities of not only the child witness but also the adult interviewers.

Eliciting "the Truth" from Child Witnesses

Numerous studies have shown a developmental progression in the amount of information children recall, with younger children typically recalling less than older children (e.g., Gee & Pipe, 1995; Goodman, Aman, & Hirschman, 1987; Goodman & Reed, 1986; Marin, Holmes, Guth, & Kovac, 1979; Oates & Shrimpton, 1991; Saywitz, 1987). Age in itself is not sufficient to account for the variability in children's recall, however, since variability in recall among children of similar ages is common (Leichtman, Ceci, & Morse, 1997; Pipe & Salmon, 2002; Quas, Goodman, Ghetti, & Redlich, 2000; Quas, Qin, Schaaf, & Goodman, 1997). Furthermore, when task demands are manipulated by using recognition rather than free-recall tasks, for example, age effects are attenuated or even disappear (Ceci, Ross, & Toglia, 1987b; Cole & Loftus, 1987; Jones, Swift, & Johnston, 1988; Saywitz, 1987), indicating that variables other than what the children actually know or remember about their experience contribute to age-related differences in memory. Thus,
age per se does not provide an accurate index of children’s ability to recount personal experiences (Goodman & Schwartz-Kenney, 1992) but rather serves to summarize the influence of a number of variables relating to children’s abilities, the effects of which may differ across interview/recall contexts.

Studies of the development of autobiographical memory show that younger children’s impoverished recall, relative to older children and adults, may be due in part to limited retrieval skills, metalinguistic deficits, and immature narrative skills (for reviews see Gordon, Baker-Ward, & Ornstein, 2001; Nelson & Fivush, 2004; Ornstein, Haden, & Hedrick, 2004). Developmental differences in the selection and use of cognitive strategies, both for encoding and retrieval (see Schneider & Bjorklund, 1998 for review), affect children’s ability to talk about past events, and therefore the amount of support they may need to help them describe the event completely. Encoding and retrieval strategies develop with age and experience, and the use of effective retrieval strategies is usually associated with increases in recall and reporting of information (Flavell, 1970; Ornstein et al., 2004). Young children may use strategic behaviors when explicitly instructed to do so but still not benefit as much as older children (Flavell, Miller, & Miller, 1993). In other words, younger and older children may use the same strategies but recall different amounts, possibly because the cognitive effort required to implement the strategy decreases the recall capacity of younger children (Miller, 1990). Older children do not need to invest as much cognitive effort because strategy use becomes more automatic with age, thereby enabling more effort and attention to be allocated to retrieval (Schneider & Bjorklund, 1998). As children become older, they also become better at generating internal retrieval cues, which makes them less reliant on support provided during the interview (Quas et al., 2000).

Deficiencies in the retrieval of accurate event-related information may arise from errors in children’s source-monitoring—that is, the ability to identify the source of one’s knowledge or memory, particularly if interviewers pose leading or misleading questions that refer to details observed, experienced, or heard about in other contexts (Roberts & Blades, in press; Roberts & Powell, 2001). Inaccurate source-monitoring during the retrieval process may lead children to incorporate and report information that they have heard from others, seen (e.g., on television), or imagined. Children may use or remember information without remembering
where they learned it, or they may attribute their knowledge to the wrong source (Roberts & Blades, 2000).

The clarity and completeness of children's testimony is also affected by their developing communicative abilities. The vocabularies of young children are much more limited and less descriptive than those of adults (Brown, 1973; Dale, 1976), and their statements are likely to lack adjectival and adverbial modifiers (de Villiers & de Villiers, 1999). Misunderstandings between children and interviewers may occur because children's rapid vocabulary growth often leads adults to overestimate their linguistic capacities and thus use words, sentence structures, or concepts that exceed the children's competencies (Saywitz & Camaro, 1998; Saywitz, Nathanson, & Snyder, 1993; Walker, 1994). Despite their apparent maturity, young children—especially preschoolers—frequently use words before they know their conventional adult meaning, may use words that they do not understand at all, and may understand poorly some apparently simple concepts, such as "any," "some," "touch," "yesterday," and "before" (Harner, 1975; Walker, 1994). Furthermore, children frequently use very concrete and restricted interpretations of words (e.g., a child may refuse a question about something that happened at "home" if the child lives in an apartment) and idiosyncratic vocabulary, as well as comparisons or references that fall outside of the listener's knowledge base (e.g., "he looked like my English teacher"), making their accounts ambiguous.

Increases in the amounts of information reported by children as they grow older may also reflect their increasingly sophisticated skills as narrators. Young children are still developing their metalinguistic abilities—coming to know what listeners want to know and how to report information coherently, monitor the success of their communication, and modify strategies as necessary to ensure that the listener has understood (Lamb & Brown, 2006; Saywitz & Snyder, 1996). For this reason, young children may not understand that their intended audience (e.g., the interviewer or jury member) is naïve with respect to what they have experienced and thus may fail to provide sufficient detail to ensure complete and accurate reports. Typically, in interactions between children and adults, children are questioned by adults who are already knowledgeable about the topic of conversation (Lamb, Orbach, Warren, Esplin, & Hershkowitz, in press). By contrast, alleged victims of abuse are often the sole sources of information about the suspected events. If children fail to appreciate that the interviewer has little, if any, knowledge of the alleged events or if they
attribute superior knowledge to the adult interviewers (e.g., Ceci, Ross, & Toglia, 1987a; Ceci et al., 1987b), they may refrain from reporting all they know. In addition, if children infer that interviewers would prefer particular responses, in attempting to be cooperative conversational partners they may compromise their accounts rather than communicate their actual experiences (Ceci & Bruck, 1993, 1995). In the forensic context, therefore, interviewers must be sensitive to children’s perceptions of their knowledge and status. To facilitate comprehensive and accurate reporting by children, for example, interviewers should emphasize that they do not know what the children experienced and that it is thus important for the children to tell as much as they know (e.g., Sternberg, Lamb, Esplin, Orbach, & Hershkowitz, 2002).

"The Whole Truth": When Do Children Provide the Most Complete Accounts of Their Experiences?

As researchers have come to understand the difficulties child victims may have recalling and reporting their experiences, they have focused attention on techniques that may minimize their impact. Before discussing techniques that may be useful for eliciting detailed information from children, however, we must first acknowledge that the nature of the to-be-remembered events may affect children’s ability to recall and report them (see Chapter 5 for review; also Cordón, Pipe, Sayfan, Melinder, & Goodman, 2004). This raises, in turn, the question of whether findings from analogue studies using staged stimulus events (varying from short videos to interactive personally experienced events) be generalized to the real-world context to which they are meant to apply. Early analogue studies produced inconsistent findings with respect to the influence of stress on memory, with some studies showing a positive effect and others showing a negative effect or no effect at all (Chapter 5; Christianson, 1992; Cordón et al., 2004; Howe, 1997). The inconsistencies may arise in part from the degree of stress (or distress) experienced, methodological differences in the definition and measurement of stress across studies, differing delay intervals, and differences in the assessment of memory (e.g., central versus peripheral information, reliability versus suggestibility). Studies of children’s memories for more salient or stressful events such as naturally occurring disasters (Parker, Bahrick, Lundy, Fivush, & Levitt, 1998), painful medical procedures (e.g., Goodman, Quas, Batterman-Faunce,
Riddlesberger, & Kuhn, 1994, 1997; Steward, O’Connor, Acredolo, & Steward, 1996), and injuries resulting in emergency room visits (Howe, Courage, & Peterson, 1994; Peterson & Bell, 1996; Peterson & Whalen, 2001) suggest that, in general, stress may be associated with increased memory and decreased forgetting over time, particularly with respect to central or core information. Nonetheless, studies involving less stressful experiences still make a valid contribution to forensic psychology, because abuse victims may not always perceive their experiences as painful or traumatic, and children’s ignorance or misunderstanding of events may decrease their salience (Pipe et al., in press). Moreover, analogue studies provide a basis for the development of safe and effective forensic interview techniques.

Such techniques include different questioning styles; the use of ancillary aids such as prop items, dolls, and drawings; and the reinstatement of context and pre-interview training. An exhaustive review of the empirical support for these techniques is beyond the scope of this chapter (see reviews by Lamb & Brown, 2006; Pipe, Lamb, Orbach, & Esplin, 2004; Salmon, 2001); rather, we briefly summarize the rationale and evidence for each of these approaches and their effects on children’s recall and reporting.

**Interviewer Question Type**

The methods used by interviewers to elicit children’s accounts of their experiences affect both the quantity and quality of information elicited from children. Children’s responses to open invitations tapping recall memory (e.g., “Tell me about that”) are typically more accurate than responses to more focused questions (“Was his hat red?”), which tap recognition memory (e.g., Dent, 1982, 1986; Dent & Stephenson, 1979; Hutcheson, Baxter, Telfer, & Warden, 1995; Lamb & Faucher, 2001; Oates & Shrimpton, 1991; Orbach & Lamb, 2001). The completeness of these initially brief accounts can be increased when interviewers use the information provided by children in their first spontaneous utterance as prompts for further elaboration (e.g., “You said the man touched you; tell me more about that touching”) (Lamb et al., 2003). Unfortunately, however, forensic interviewers frequently ask very specific questions (“Did he touch you?”). Young children (those under 6) have special difficulty answering specific questions and may exhibit a response bias (e.g.,
Fivush, Peterson, & Schwarzmeuller, 2002; Peterson, Dowdin, & Tobin, 1999) or a reluctance to give “don’t know” responses in the absence of knowledge (Davies, Tarrant, & Flin, 1989; Saywitz & Snyder, 1993). In addition, Waterman, Blades, and Spencer (2000, 2001, 2004) showed that children (5 to 9 years) often attempt to answer impossible (nonsensical) or unanswerable (where the information has not been provided) questions, especially if they are phrased as yes/no rather than “wh-” questions. The type of questions asked and the context in which they are introduced thus determine whether they enhance or degrade the reliability of children’s reports (Poole & Lamb, 1998; Saywitz & Lyon, 2002).

**Prop Items**

Several researchers have explored alternative techniques aimed at facilitating more complete recall. The use of prop items relevant to the event in question (e.g., real items, scale models, toys, photographs) may increase the similarity between the event and the retrieval condition (interview), thereby enhancing recall by providing reminders of the event (Tulving & Thomson, 1973), or providing opportunities for children to overcome linguistic deficits by demonstrating rather than, or as well as, telling what they remember (Pipe, Gee, & Wilson, 1993). Although the use of props in interviews with young children (especially those 5 years or younger) may increase the amount of information reported, the amount of erroneous information reported may also increase, particularly when toys are involved (see Salmon, 2001, for a review). In forensic contexts, it is also unlikely that interviewers can exactly match the conditions of the event with those at the time of recall. The risk of contaminating children’s reports by inadvertently including items that were not part of the target events and therefore misleading the children is thus likely to outweigh the possible benefits of eliciting additional information.

**Anatomically Detailed Dolls**

The use of anatomical dolls as interview aids has been highly controversial. Everson and Boat (2002) have argued that blanket condemnation or endorsement of anatomical dolls is inappropriate without considering the specific function for which the doll is used within the interview (e.g., as a demonstration aid, as an icebreaker). They noted that analogue studies
using anatomical dolls do not mimic the conditions under which the dolls are likely to be used in forensic practice and therefore cannot elucidate the effects of doll use on the reliability and completeness of children's reports. Field studies have produced inconsistent findings regarding their efficacy (Lamb, Hershkowitz, Sternberg, Boat, & Everson, 1996; Leventhal, Hamilton, Rededal, Tebano-Micci, & Eyster, 1989).

Critics have argued that anatomical dolls may stimulate sexual play that could be misinterpreted, but Everson and Boat's review (2002) identified no studies showing that dolls stimulate sexual play in sexually naïve children. Critics have also argued that anatomical dolls may lead to an increase in children's suggestibility or false reports of the occurrence of genital touch when coupled with suggestive questions (e.g., Bruck, Ceci, Francoeur, & Renick, 1995; Steward, Steward, et al., 1996). A recent field study showed that suggestive play and inconsistent information were indeed more likely when anatomical dolls were used in interviews with very young children (3- to 6-year-olds) (Thierry, Lamb, Orbach, & Pipe, 2005). Findings regarding the accuracy of children's reports when interviewed with anatomically detailed dolls are inconsistent, however, and other studies have shown increases in the amounts of information reported with little or no effects on accuracy (e.g., Goodman et al., 1997; Saywitz, Goodman, Nicholas, & Moan, 1991; Steward, Steward, et al., 1996). Explanation of these different effects is likely to lie in the way in which the dolls are used, when and how they are introduced, and the general interview context, although there has been little research isolating the important variables.

A third concern about the use of dolls, especially with very young children, derives from the fact that children may have difficulty with their symbolic nature or representational use (e.g., DeLoache & Marzolf, 1995). Young children may have difficulty in understanding that, in the interview context, dolls are intended to act as representations of the children, but they also, simultaneously, have their identity as dolls. Children may thus treat a doll as a plaything instead of understanding that the interviewer expects their interaction with the doll to reflect and represent personal experiences. When used cautiously and not in conjunction with suggestive questions, there is some evidence that dolls used as anatomical models or to allow the demonstration of touches that may not otherwise be reported because the information is painful, embarrassing, or sensitive may be helpful, at least for children above 5 years of age (Everson & Boat,
2002; Saywitz et al., 1991). Again, however, there is a paucity of research to guide safe and effective use in the forensic context.

**Drawings**

Drawings can also be used in forensic interviews as a means of enhancing children's accounts. Drawings have been used in two different ways: as direct communicative aids whereby, during the interview, children draw and talk about what they have experienced (Butler, Gross, & Hayne, 1995; Gross & Hayne, 1998, 1999; Salmon, Roncolato, & Gleitzman, 2003; Wesson & Salmon, 2001), and as representational aids whereby children are provided with drawings (e.g., of objects or people) and are asked about events connected with the drawings (e.g., presence or absence of the items, or the location of possible touches; Aldridge et al., 2004; Brown, Pipe, Lewis, Lamb, & Orbach, 2007; Willcock, Morgan, & Hayne, 2006).

Asking children to draw while talking during the interview may potentially facilitate children's reporting in several different ways. Drawing may help children generate retrieval cues for further recall (Butler et al., 1995). Drawing may also reduce the social-demand characteristics of the interview by increasing rapport, increasing the child's comfort level, and prolonging the interview so that children have more opportunity to retrieve and report information (Gross & Hayne, 1998; Salmon et al., 2003). Providing representational drawings may help children to report aspects of an event that they do not have the language for, would not spontaneously report because the information is embarrassing or painful, or would not normally report because conversational conventions restrict the level of detail spontaneously incorporated into descriptions of past experiences (Butler et al., 1995). To date, the mechanisms by which providing drawings in interviews facilitates children's ability to recount experiences have not been conclusively established. Indeed, any or all of these explanations may come into play.

Studies examining the use of drawings to enhance children's reports of personally experienced events have shown that, under ideal circumstances (i.e., when asking children about true events using nonsuggestive questioning), drawing while talking yields an increase in the amount of information recalled, without compromising accuracy (e.g., Butler et al., 1995; Gross & Hayne, 1998, 1999; Salmon et al., 2003; Wesson & Salmon, 2001), although drawing may also be associated with decreased accuracy,
especially after a delay (Salmon & Pipe, 2000). Several studies have also demonstrated, however, that in addition to encouraging more complete recall of true events, drawing may also encourage children to report information about events that never occurred (e.g., Bruck, Melnyk, & Ceci, 2000; Gross, Hayne, & Poole, in press; Strange, Garry, & Sutherland, 2003). Taken together, these studies suggest that drawing and talking may generally increase children's responsiveness, about both true and false events.

With respect to interviewer-provided drawings, many clinical and forensic psychologists use human-figure drawings to aid the reporting of specific information (e.g., the location of touch experienced as part of an abusive act) during interviews (Aldridge et al., 2004; Brown et al., 2007; Willcock et al., 2006). It is unclear, however, to what extent young children in particular are able to use these drawings as "maps" of their own body to accurately communicate their experiences. Steward, Steward, and colleagues (1996) explored young children's recall of a pediatric exam that included body touch and found that although anatomically detailed drawings were associated with a marginal increase in the completeness of information reported, false reports of forensically relevant information also increased.

In a recent field study, children between the ages of 4 and 13 years were shown a human-figure drawing following an exhaustive verbal interview conducted using the National Institute of Child Health and Human Development (NICHD) investigative interview protocol and were asked to show on the drawing where touching had occurred (Aldridge et al., 2004). Children were then asked to elaborate on any reported touches. A large amount of new information (86 new forensically relevant details on average) was reported during this phase of the interview, even though it occurred after an exhaustive verbal interview. The drawings appeared to be particularly helpful for the youngest (4- to 7-year-old) children, who reported 27% of their total information in response to the drawing, but because specific questions, which are typically associated with lower accuracy, predominated, the authors cautioned that much of the information elicited may have been unreliable. Consistent with this, Willcock et al. (2006) demonstrated that children's reports of touches that had occurred as part of a staged event were poor: almost 67% of the touches were not reported, and the accuracy of reported information was 48%. Of particular concern, a significant number of children falsely reported touches of the genital (11.3%) and breast regions (25.5%). Brown et al.
(2007) explored the amount and accuracy of information reported about touches during a staged event using either a human-figure drawing or verbal questions about touch. As in the Aldridge et al. (2004) study, children were interviewed exhaustively using the NICHD protocol and then shown a human-figure drawing and asked about touches that may have occurred. Like the children in Aldridge et al.’s (2004) study, the majority of children reported unique information during the “touch” phase of the interview, but the accuracy of this information was low (overall accuracy for information reported to open questions was 33%). More than half of the information reported in response to open questions about touch was inaccurate, although it tended to be plausible in the context of the event. Forensically relevant errors were infrequent and were rarely elaborated on. Taken together, the results of these studies suggest that although human figure drawings may increase the amount of information reported by children, the information elicited may be highly unreliable. This conclusion must, however, be qualified by the limited number of studies conducted to date and the way in which the drawings have been used—for example, at the end of an exhaustive interview, rather than for purposes of clarification during the interview following children’s spontaneous recall of touch having occurred. Whether and at what age children can use human-figure drawings to elucidate their accounts under such conditions has yet to be examined empirically.

**Mental Context Reinstatement**

Studies of cognitive techniques such as mental context reinstatement (MCR: guiding children to mentally reconstruct the settings in which the events occurred) indicate that this can be a useful technique for helping children retrieve as much information as possible (Bekerian, Dennet, Hill, & Hitchcock, 1990; Hershkowitz, Orbach, Lamb, Sternberg, & Horowitz, 2001; McCauley & Fisher, 1995, 1996). Using MCR, children are instructed to think about different sensory features of the event (e.g., what they could hear, see, smell) and different aspects of the event (e.g., what the place looked like) before beginning to verbally recount what they remember. Consistent with the expectation that mental reinstatement of context will help witnesses to mentally travel back in time and “relive” the experience, MCR increases the similarity between the conditions at recall and those at the time of the experience, thereby making
the information associated with the event more accessible. Mental rein-
statement of context is one of the main components of the Cognitive
Interview (Fisher, Geiselman, Raymond, Jurkevich, & Warhaftig, 1987),
which is used widely by police officers interviewing adult witnesses. The
Cognitive Interview progresses through five stages, beginning with an
introduction to the purpose of the interview and going on to a request
for open-ended recall, probed recall, review, and closure. During the
probed recall stage of the interview, four techniques are used to encourage
complete recall and reporting. First, witnesses are encouraged to report
everything they can remember, even small details that they may consider
unimportant. Second, they are asked to mentally reinstate the context
of the incident and report any details that they can recall, including de-
scriptions of the environment, the people, smells, feelings, and reactions
to events. Third, witnesses are asked to recall the event in different tem-
poral sequences (e.g., reverse order, starting from the most salient aspect
and moving forward and then backward in time from that aspect), and
fourth, they are asked to recall the event from different perspectives (e.g.,
from the perspective of others who were present). The Cognitive Inter-
view has also been used successfully with children (e.g., Köhnenken, Milne,
Memon, & Bull, 1999), although some of the component techniques (e.g.,
changing perspectives, changing the temporal ordering) may make de-
mands that exceed the cognitive competencies of children under 8 years
of age (Geiselman, 1999; Hayes & Delamothe, 1997; Saywitz, Geiselman, &
Bornstein, 1992).

Interventions designed to ameliorate the difficulties children have pro-
viding satisfactory narratives without adult support include the use of a
practice interview (e.g., Sternberg et al., 1997; Sternberg, Lamb, Orbach,
Esplin, & Mitchell, 2001), explicit training in the essential components of
informative narratives before recalling the target events (e.g., Brown &
Pipe, 2003b; Saywitz & Snyder, 1996; Saywitz, Snyder, & Lamphear, 1996),
and prompting by interviewers for forensically relevant categories of in-
formation (Bowen & Howie, 2002; Brown & Pipe, 2003a; Elischberger &
Roebers, 2001). In a field study of investigative interviews with children,
Sternberg et al. (1997) showed that open-ended questions and prompts
for elaborative responses in a practice interview about a neutral event
(e.g., a recent holiday) increased the amounts of information reported
in response to the first prompt regarding the alleged abuse. These find-
ings suggested that even in authentic forensic interviews, it is possible
to entrain response styles that enhance the richness of information provided by children by having them practice providing detailed narrative accounts of experienced events before turning attention to substantive issues. A practice interview is recommended in best practice guidelines for forensic interviewers (e.g., Home Office, 2002) because it (a) provides opportunities to enhance rapport between children and interviewers and (b) prepares children for the task at hand by demonstrating what level of detail is expected in their responses and illustrating the style of questioning interviewers may use to help them achieve it.

Saywitz and her colleagues developed an innovative interviewing technique, Narrative Elaboration Training (NET), to explore the effectiveness of pre-interview training and practice in talking about the past on children’s subsequent reports of a target event (Saywitz & Snyder, 1993, 1996). The NET addresses metalinguistic deficits by teaching children what information is necessary to provide a complete and coherent narrative about a past experience, and it addresses retrieval deficits by providing pictorial cue cards to prompt retrieval of forensically relevant categories of information (people, setting, actions, conversation, and affect). Children are first trained to talk about one experienced event using the cards and are then asked about the to-be-remembered event. In the laboratory, the NET helps children, including preschoolers and children with mental retardation, to report events more completely, without compromising accuracy (Brown & Pipe, 2003a, 2003b; Dorado & Saywitz, 2001; Nathanson, Crank, & Saywitz, in press; Saywitz & Snyder, 1996; Saywitz et al., 1996), and it does not elicit reports of false events (Camparo, Wagner, & Saywitz, 2001). However, verbal prompting for categories of information, without training, can be just as effective as NET (Bowen & Howie, 2002; Brown & Pipe, 2003a; Elischberger & Roebers, 2001).

"Nothing But the Truth": Suggestibility of Child Witnesses

The credibility of children’s accounts is often challenged on the grounds that they are especially vulnerable to suggestion (Ceci & Bruck, 1993, 1995). Initial laboratory-based research appeared to produce inconsistent findings regarding the suggestibility of young children, however. Goodman and her colleagues have shown that children as young as 3 to 4 years of age can successfully resist misleading questions suggesting actions that are very different from those that have occurred or been witnessed
(Goodman & Aman, 1990; Goodman et al., 1987; Goodman, Bottoms, Schwartz-Kenney, & Rudy, 1991; Goodman, Hirschman, Hepps, & Rudy, 1991; Goodman, Rudy, Bottoms, & Aman, 1990; Goodman, Wilson, Hazan, & Reed, 1989). In other laboratory settings, however, preschoolers have appeared especially susceptible to suggestion (e.g., Ceci et al., 1987a, 1987b; King & Yuille, 1987; Toglia, Ceci, & Ross, 1989; see McAuliff, Kovera, & Viswesvaran, 1998, for a review). Indeed, children may, under certain conditions, come to provide elaborate accounts of entire events that have never been experienced (e.g., Ceci, Huffman, Smith, & Loftus, 1994; Ceci, Loftus, Leichtman, & Bruck, 1994; Strange et al., 2003). Such findings are not limited to children, however, with several studies demonstrating that adults too may come to produce detailed “memories” of entirely false events (e.g., Garry, Manning, Loftus, & Sherman, 1996; Hyman, Husband, & Billings, 1995; Loftus & Pickrell, 1995).

The apparently contradictory findings regarding children’s suggestibility may be resolved by examining methodological differences in both the manipulation and measurement of suggestibility and reliability. Suggestibility is multiply determined by cognitive, social, motivational, and individual difference variables. Suggestive techniques may include instructions from the interviewer to pretend, draw, or imagine what might have happened, introduction of information by the interviewer that has not been reported by the child, and pressure to provide a response or comply with propositions made by the interviewer (e.g., telling children they will feel better if they tell, alluding to statements made by other children, introduction of stereotypes about the alleged perpetrator or descriptions of him/her as “bad” and “needing to be punished”), and repetitive questioning over a series of interviews with encouragement to speculate about what might have happened. Laboratory-based research has demonstrated that there are valid reasons for skepticism regarding the reliability of children’s responses in these circumstances (e.g., Garven, Wood, Malpass & Shaw, 1998; Leichtman & Ceci, 1995).

As discussed earlier, source-monitoring errors may also lead children to inaccurately describe their experiences. Children’s sensitivity to the status and knowledge of the interviewer may also foster compliance with suggestive techniques, because they misunderstand the purpose of the interviewer’s statements, assume that the interviewer has superior knowledge, or simply want to be cooperative. When interviewers adequately prepare
children for their role as experts, empower them to correct interviewers, and admit that they "don't know" some answers, and when interviewers avoid asking children to pretend or imagine, avoid being coercive, do not repeat misleading questions within the interview, and keep children focused on central details of personally experienced events, children are able to resist misleading questions and provide meaningful and accurate accounts of their experiences (Pipe et al., 2004).

**Promoting Reliable Evidence**

As research on factors affecting the reliability of children's eyewitness testimony has accumulated, a consensus has emerged about the safest and most effective ways of helping maltreated children to recall and report their experiences without compromising the reliability of their reports (e.g., American Professional Society on the Abuse of Children [APSAC], 1990, 1997; Fisher & Geiselman, 1992; Jones, 1992; Lamb, Sternberg, & Esplin, 1994, 1995, 1998; Home Office, 1992, 2002; Orbach et al., 2000; Poole & Lamb, 1998; Raskin & Esplin, 1991; Sattler, 1998). Forensic interviewers are advised to establish rapport before discussing the alleged incident, and to use open-ended invitations while avoiding suggestive techniques. Specific or closed questions should be used only at the end of the interview to clarify inconsistencies or elicit information crucial to the investigation that may not have been spontaneously disclosed. Unfortunately, several studies have demonstrated discrepancies between recommended best practice and the conduct of forensic interviews with children (Cederborg, Orbach, Sternberg, & Lamb, 2000; Sternberg, Lamb, Davies, & Westcott, 2001; Sternberg, Lamb, & Hershkowitz, 1996; Sternberg et al., 1997). Training programs for forensic interviewers produce initial improvements in interviewers' knowledge of developmentally appropriate interviewing but do not reliably affect behavior, with interviewers reverting to practices they know may compromise the reliability of the children's evidence (e.g., closed or focused questions, option-posing prompts, suggestive questions, anatomical dolls) (Aldridge & Cameron, 1999; Cederborg & Lamb, 2006; Craig, Scheibe, Kircher, Raskin, & Dodd, 1999; Lamb, Orbach, Sternberg, Esplin, & Hershkowitz, 2002; Stevenson, Leung, & Cheung, 1992; Warren et al., 1999). To help interviewers to conduct developmentally appropriate interviews, researchers at NICHD thus created an interview protocol
that operationalized the recommendations from research (Orbach et al., 2000; Sternberg, Lamb, Orbach, et al., 2001).

The NICHD Interview Protocol

The NICHD protocol begins with an introductory phase that promotes rapport; includes a “truth and lie ceremony” to communicate to children the importance of truth telling; and establishes the ground rules for the interview, such as the acceptability of saying “I don’t know” and correcting the interviewer. Children are then asked for information about themselves, their families, and their schools, using open-ended questions. Following this, children are asked to describe two recent experiences (e.g., Christmas, Passover, or a recent birthday) and are prompted for further elaboration using open-ended prompts, followed by more focused prompts such as time segmentation (e.g., “Tell me everything that happened from the time you went home until you went to the store”; Sternberg et al., 2002, p. 420). The substantive portion of the interview is then introduced, with a series of open-ended prompts used to encourage the child to discuss the alleged abuse (e.g., “Tell me why you came here today”). None of these prompts refer to the actions, perpetrator, or location of the alleged abuse. The NICHD protocol includes specific questions to be used if a child has not disclosed the abuse in response to more open-ended prompts. The questions were formulated to be minimally leading, should they be required to prompt the child to report the alleged abuse. The NICHD protocol recommends following any direct questions with open-ended prompts for further information (“pairing”), such as “Tell me everything about that,” to minimize the risk of subsequent information being contaminated by leading or suggestive questioning. When children indicate that there were multiple instances of abuse, the NICHD protocol recommends eliciting a description of the most recent incident first, followed by the first incident, and then any other specific, well-remembered incidents (e.g., “the time in the bathroom,” “the time when you were camping”). Again, prompting for further information involves open-ended prompts, followed by more focused questions if necessary. The interview then finishes with a discussion of a neutral event. One of the distinctive features of the protocol is that it uses children’s responses as cues for further information, resulting in a child-directed rather than an interviewer-directed approach throughout all phases of the interview.
Field studies have compared interviews conducted by investigators before and after they have been trained to use the protocol. Interviewers using the protocol adhere better to recommended practices. In a study of 50 interviews conducted by Israeli youth investigators using the protocol, Orbach et al. (2000) found that interviewers offered more than five times as many open-ended invitations as they did in comparable interviews conducted before the structured protocol was introduced. The number of option-posing questions dropped by almost 50% as well, and much more of the information was obtained using free recall rather than investigatordirected recognition probes in the protocol-guided interviews.

Similar results were obtained with investigative interviews conducted by police officers in the western United States (Sternberg et al., 2002; Sternberg, Lamb, Orbach, et al., 2001). The proportion of invitations increased from 10% to approximately one-third, while option-posing and suggestive prompts decreased from 41% to 24%. The total amount of information elicited from free-recall memory also increased dramatically; whereas only 16% of the information was elicited using free-recall prompts in the pre-protocol interviews, about half of the information was obtained using free recall in the protocol interviews. Furthermore, this pattern of results was similar regardless of the children's age. Although younger children provided shorter and less detailed responses than did older children, analyses of interviews with 4- to 6-year-old children revealed that the interviewers relied heavily on invitations (34% of their questions) and succeeded in eliciting a substantial amount of information (49% of the total) using free-recall prompts. Recent research using a British English version of the protocol in England (Lamb et al., 2006) and a French version in Quebec (Cyr, Lamb, Pelletier, Leduc, & Perron, 2006) has confirmed that the protocol leads to comparably dramatic increases in the use and productiveness of open-ended prompts.

In interviews using the protocol, children thus provided substantially more details in response to open-ended invitations. Because these studies involved criminal events, the accuracy of the children's responses could not be established, but research has consistently demonstrated that responses to open-ended questions are more likely to be accurate (Lamb, Sternberg, Orbach, Hershkowitz, & Esplin, 1999). Orbach et al. (2000) showed that almost all of the children who made a disclosure provided a narrative account of the alleged abuse in response to the first invitation. Likewise, Sternberg, Lamb, Orbach, et al. (2001); Lamb et al. (2006); and
Cyr et al. (2006) showed major increases in the amounts of information elicited using invitations. In each case, the total amount of information elicited from free-recall memory increased from about one-seventh of the information in the pre-protocol interviews to about half in the protocol interviews.

There are conflicting views as to whether very young children require more direct interviewing strategies to provide the required level of support and scaffolding for recall and reporting or whether open-ended strategies are sufficient, just as with older children (e.g., Lamb, 1994; Lamb et al., in press; Perry & Wrightsman, 1991). To further clarify the ability of preschoolers to address open-ended questions, Lamb et al. (2003) studied protocol interviews of 130 4- to 8-year-olds and showed that children as young as 4 years were able to report substantial numbers of details about the alleged abuse in response to open-ended invitations. On average, one-half of the information provided by the children came in response to open-ended prompts.

More recently, research using the NICHD protocol has been focused on understanding special groups of witnesses—those who are reluctant or unwilling to disclose, and those who have learning disabilities. Although much attention has been given to the dangers of eliciting false reports of abuse from children, little has been directed toward an equally serious issue—children who have experienced abuse but do not disclose. In Israel, for example, approximately one-third of the suspected child victims interviewed do not disclose abuse during forensic interviews, despite suspicion that abuse might have occurred (Hershkowitz, Horowitz, & Lamb, in press). In a smaller-scale study of interviews conducted using the NICHD protocol, Pipe et al. (in press) reported that 23% of the 294 children interviewed did not make a disclosure, despite sound reasons to suspect that abuse had occurred (e.g., suspect confession). The likelihood of disclosure increased with age and decreased if the suspected perpetrator was a close family member, especially for the younger children in the sample.

Children may be reluctant to disclose abuse for many reasons, including the desire to protect familiar perpetrators, especially family members (Paine & Hansen, 2002; Yuille, Tynosievich, & Marxsen, 1995), or because they have been coerced into secrecy (DeYoung, 1988; Goodman-Brown, 1995; Goodman-Brown, Edelstein, Goodman, Jones, & Gordon, 2003), assume some responsibility or blame (Lyon, 2002; Sjöberg & Lindblad,
2002), feel ashamed or embarrassed (Lyon, 1995; Saywitz et al., 1991), or fear threatened or imagined negative outcomes (Berliner & Conte, 1995; DeYoung, 1988; Paine & Hansen, 2002; Palmer, Brown, Rae-Grant, & Loughlin, 1999). In addition, young victims may not understand that they have been abused and may have failed to encode or remember experiences that did not appear salient to them (Cederborg, Lamb, & Laurel, in press).

Three new studies (Hershkowitz et al., in press; Hershkowitz, Horowitz, & Lamb, in preparation; Orbach, Shiloach, & Lamb, in press) show that children who are reluctant to disclose or who do not disclose at all, despite substantial evidence that abuse occurred, differ from children who are willing to disclose abuse even in the early presubstantive phases of the interview. Hershkowitz et al. (in press; in preparation) examined the transcripts of forensic interviews conducted with 70 children (4 to 13 years old) about whom there was compelling evidence that abuse had indeed occurred. Half of the children disclosed abuse and half did not, with children who did not disclose any abuse being more uncooperative and providing fewer details and more uninformative responses to the interviewers' prompts during the presubstantive rapport-building and episodic-memory practice segments of the interview. During the substantive phase, interviewers posed fewer free-recall prompts and made fewer supportive comments when interviewing children who did not disclose. Hershkowitz et al. concluded that the presubstantive portion of the interview may be important for identifying reluctant witnesses, and that a premature focus on getting an allegation may result in nondisclosure from these children. Similar conclusions were reached by Orbach et al. (in press), who explored the relation between the type of prompt needed to elicit allegations of abuse and the amount of information subsequently disclosed by the alleged victims. The 70 4– to 12-year-old children studied were classified as either nonreluctant disclosers (those who made allegations in response to open free-recall prompts) or reluctant disclosers (those children who did not make an allegation until focused prompts were used). Nonreluctant disclosers reported more forensically relevant information in response to free-recall prompts throughout the interview. Furthermore, the amount of information reported during the presubstantive segment of the interview was positively correlated with the amount reported during the substantive segment, indicating that reluctant witnesses are less communicative even during the nonsubstantive segments.
of the interview and continue to report less information following disclosure. Both studies thus highlight the importance of understanding the motivations and factors that may increase or decrease the likelihood that children will make genuine disclosures of abuse, particularly against the backdrop of statistics suggesting high rates of nonreporting (e.g., Hershkowitz et al., in press; London, Bruck, Ceci, & Shuman, 2005; Pipe et al., in press). The identification of such variables may pave the way for the development of strategies to support reluctant or nondisclosing witnesses, and thus enhance our ability to protect these children from continued exposure to abusive situations.

On another front, lawyers, forensic interviewers, child psychiatrists, and psychologists are increasingly calling for research exploring the abilities and vulnerabilities of witnesses with mental retardation and other learning disabilities (e.g., Jones, 2003; Kebbell & Davies, 2003; O’Kelly, Kebbell, Hatton, & Johnson, 2003; Stobbs & Kebbell, 2003). Children with mental retardation are much more likely than their typically developing counterparts to either witness or experience abuse, but they are less likely to have their complaints investigated and/or prosecuted because their capacity to provide reliable evidence is often doubted (Hershkowitz et al., in preparation; Westcott & Jones, 1999). Hershkowitz et al. (in preparation) examined the extent to which children with mental retardation were vulnerable to different types of abuse, characteristics that may be associated with abuse of these children, and reluctance to disclose as measured by denials of abuse and delayed disclosure by analyzing records of forensic interviews conducted in Israel between 1998 and 2004 (n = 40,430) with children between 3 and 14 years of age who had been classified as slightly disabled (11%), severely disabled (1.2%), or not disabled (87.8%). Children with disabilities (both slight and severe) were more likely than those without disabilities to experience sexual, but not physical, abuse. They were also less likely to disclose, and disclosure was more likely to occur after a delay; they were more likely to experience serious offenses, and the perpetrators were more likely to be family members. Thus, these children were at particular risk of serious abuse within the family but were less likely to make disclosures that would have allowed their complaints to be investigated.

The limited research on eyewitness memory in children with mental retardation suggests that these children are as capable of providing reliable information about their experiences as children matched for
developmental level (mental age) when interviewed with optimal techniques (free recall using open questions), although they may perform worse than children of the same chronological ages (Agnew & Powell, 2004; Dent, 1986; Henry & Gudjonsson, 2003; Michel, Gordon, Ornstein, & Simpson, 2000), with suggestive and/or specific questions being especially problematic (e.g., Agnew & Powell, 2004; Henry & Gudjonsson, 2003). In an ongoing program of research, we are exploring the ability of children with mental retardation (CWMR) to provide meaningful accounts of a personally experienced event when interviewed with the NICHD interview protocol compared to typically developing children matched for both mental age (MA) and chronological age (CA). In addition to examining the memorial and narrative abilities of CWMR and the effectiveness of different levels of interviewer prompting within the NICHD protocol, we are exploring the impact of the severity of mental retardation (mild versus moderate), the effects of delay between the experience and the interview, the effect of repeated interviews, and children’s ability to answer suggestive questions that vary in structure (open versus closed) and content (central versus peripheral detail). Preliminary analyses from a subset of the sample (CWMR, n = 17; MA, n = 15; CA, n = 12) interviewed after a short delay (1 week) revealed no significant differences in the completeness of the accounts provided by the three groups of children or in the total amount of correct, incorrect, or ambiguous information reported. CWMR and their MA matches were, however, less accurate than the CA matches. In terms of the amount of support required from the interviewer to elicit the information, some interesting patterns emerged. CWMR required more prompts to orient them to the event of interest than CA matches. When the proportion of all information reported was considered, CWMR and MA children reported significantly less information to free-recall and open prompts and more information in response to focused prompts than CA children. There were no significant differences in the accuracy of children’s responses to the suggestive questions, and no differences in the numbers of correct, incorrect or “don’t know” answers between the CWMR, CA, and MA groups (Brown, Lewis, Stephens, Lunn, & Lamb, 2006).

In a small study of forensic interviews conducted in Sweden with alleged victims of abuse (6 to 22 years old) who had a learning disability (n = 11), Cederborg and Lamb (in preparation) showed that interviewers relied heavily on focused questions, although children were able to answer
open questions when given the opportunity to do so and provided many forensically relevant details. The interviewers spoke more than the children, used questions that were developmentally inappropriate, and did not demonstrate an awareness of the needs and capacities of the children they were interviewing. Such findings are consistent with two recent studies demonstrating that the manner in which lawyers and judges interact with witnesses who have learning disabilities may also limit their participation in court and compromise the likelihood of just verdicts. Cederborg and Lamb (2006) examined court transcripts of Swedish cases where the alleged victims had learning disabilities and found that little or no information was provided to the court regarding the children's disabilities or their possible impact on the children's ability to give testimony. Judges expected them to provide reports much the same as those provided by typically developing children. Similarly, O'Kelly et al. (2003) examined court transcripts involving adults with learning disabilities and found that lawyers asked the same types of questions of them as of nondisabled adults and that judges did not differentially intervene. It is thus clear that research-based guidelines are needed to inform professionals (e.g., social workers, forensic investigators, police, lawyers, judges, and jurors) about the capacities of children with learning disabilities to recall and communicate their experiences and strategies that may enhance or detract from their capabilities.

Conclusion

Several decades of research on the frailties and competencies of young witnesses have demonstrated the advantages of a developmentally sensitive approach to interviewing in terms of both how much information children provide and, importantly, the accuracy of that information. Although the quality of children's testimony is influenced by a number of factors pertaining to the children themselves and the events they have experienced, the ways in which interviewers attempt to elicit information are critical. Valid reasons for caution about the accuracy of children's responses to suggestive questioning techniques or following exposure to coercive or highly suggestive prior interviews notwithstanding, even quite young children are able to provide reliable testimony about abusive experiences when questioned appropriately. However, we must also recognize that children may need help retrieving, structuring, and reporting their
experiences in an elaborative manner, and there are a number of constructive approaches to interviewing that provide the appropriate support without degrading the quality of children's accounts. For example, when children understand their role as informants, the naivety of the interviewer, the importance of only reporting what they know and not guessing, and the permissibility of "don't know" responses and of correcting an interviewer's mistakes; when they feel comfortable with the interviewer and have had an opportunity to practice talking about the past in a detailed manner; and when interviewers avoid relying on closed, leading, or misleading questions, even very young children are able to provide meaningful and accurate accounts of their experiences. The onus is therefore on interviewers to ensure that they provide the optimal conditions for children to provide accurate and detailed accounts of even very distressing and traumatic experiences. In this way, we can, in turn, ensure that children are protected from their abusers and that innocent adults are not falsely accused.

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