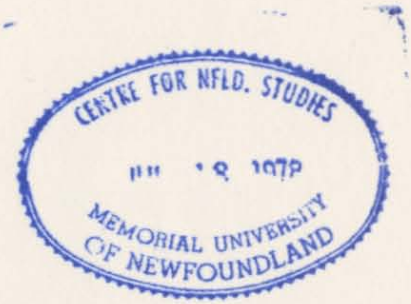
PARENT-CHILD DISCUSSIONS OF CRIME

KELLY L. WARREN


CENTRE FOR NFLD. STUDIES
MEMORIAL UNIVERSITY
OF NEWFOUNDLAND

Parent-Child Discussions of Crime

By Kelly L. Warren

A dissertation submitted to the
School of Graduate Studies
in partial fulfilment of the
requirements for the degree of
Doctor of Philosophy

Department of Psychology

June, 2011

St. John's Newfoundland and Labrador

Abstract

When children witness or experience criminal events, the first people they go to are generally their parents. No one is privy to these conversations, and consequently, very little is known about their specific content. Research has shown that merely saying something in children's presence may be sufficient for children to incorporate information into their event recall (Pezdek & Roe, 1997), which is particularly problematic when the information incorporated is incorrect. Once children's event memory has been changed, regardless of the skill of an interviewer, children may be unable to provide accurate reports (Thompson, Clarke-Stewart, & Lepore, 1997). It is important then to assess parent-child interactions about events. In the present study, seven- to ten-year-old children watched one of two videos of a theft and talked about the video with either a parent or a trained interviewer. In Part I of the study, the types of questions parents asked and children's incorporation of parent-suggested information into their recall was assessed. Results showed that: (a) parents relied heavily on yes/no and direct questions, (b) children made errors of commission in response to parent questions, (c) very few parents asked leading or misleading questions, (d) all children incorporated correct information suggested by parents, and (e) few children incorporated incorrect information suggested by parents. In Part II, parent-child interviews were compared to interviews conducted with a second group of children by trained interviewers, after watching the same videos. Results showed that (a) children provided more information in response to trained interviewers, (b) there was no difference in overall or peripheral accuracy, but children were more accurate in their provision of central information when

interviewed by a trained interviewer as opposed to a parent. In Part II, the influence of an early parent-child interview on children's recall in later interviews with a trained interviewer was also assessed. Half of the children were interviewed an additional time immediately following the video and all children were interviewed one week later. Parent interviews aided the accuracy of children's peripheral recall. The results imply that the influence of simple one-time parent-child discussions on seven- to ten-year-olds recall for events recently witnessed by these children may be minimal, particularly when there has been no opportunity for extended or repeated discussions.

Acknowledgement

Completion of this dissertation would not have been possible without the help and support of a great number of people. I would like to take this opportunity to thank them. First and foremost, thank you to my supervisor, Dr. Carole Peterson and to my committee members, Dr. Rita Anderson and Dr. Brent Snook for their help and suggestions. Thank you to Mr. Malcolm Grant, Dr. Daniel Stewart, and Dr. Peter Stewart for their statistical expertise. Thank you to Kelly Brown for her suggestions regarding APA. Thank you to Penny Voutier for her help in developing a coding scheme and in helping with the scoring of the transcripts. Thank you to Erin Broderick and Mark Austin for their help with the videos. Thank you to the interviewers and recruiters, especially Kathleen House and Amanda Blackwood for their many endless hours in helping with the interviews. Thank you to the students and staff at Grenfell Campus, Memorial University of Newfoundland for their patience and understanding. Thank you to my friends and family, especially mom, dad, Katrina, Kayla, and nan for their support and to Aunt Brenda and Uncle Boyd for giving me a home away from home as I bounced back and forth between work and school. Finally, thank you to the teachers and staff in the Eastern School District for their help with recruiting and to the parents and children who helped with the study.

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Introduction

Negative beliefs regarding the suitability of children as witnesses date back to the Salem Witch Trials, where children accused adults of engaging in witchcraft, and as a consequence, many individuals were burned at the stake (Ceci & Bruck, 1993). It appears that many adults were accused unfairly, leading to the conclusion that children were suggestible and could not be trusted, and from then on children were not permitted to testify (Ceci & Bruck, 1993). In the early 1980s, a combination of research suggesting that children were not as suggestible as was initially believed, and the recognition that people engaging in child abuse were being exonerated because children (often the only witnesses) could not testify, led to changes in laws regarding child testimony (Bala, 1999; Bruck & Ceci, 1999). Although children are now permitted to testify, questions remain regarding the accuracy and completeness of their testimony. One issue of contention that remains largely unexplored is the parental role in what children say (Goodman, 2006). When it is thought that children have been victimized or may have witnessed a crime, parents often talk to their children (i.e., interview them informally) prior to making any report of the crime. Although little is known about the exact nature of such conversations, it has been suggested that conversations with a parent are likely to contaminate child testimony (Goodman, 2006).

In some situations, parents have something to gain from interfering with children's testimony (e.g., custody cases), but in others they do not (e.g., potential molestation by a stranger). If parents have something to gain, they might deliberately coach children about what they should say. However, it seems unlikely that parents

would do this if they have nothing to gain. The inadvertent use of improper questioning techniques, however, might interfere with children's ability to report accurately what they have witnessed or experienced. Because parent-child discussions of a crime have rarely been explored, the prevalence of suggestive questioning techniques is unknown.

In the present study, parent-child discussions of a staged theft witnessed by children are examined. Research has rarely assessed parent-child conversations of this sort. However, an informal examination of documented cases that were potentially fabricated indicates the potential problems with such conversations. Furthermore, research conducted to assess children's difficulty when answering certain types of questions, typical parent-child discussions, children's event memory, and children's interview performance over multiple interviews demonstrates that such conversations have the potential to influence children's event recall (Lamb, Hershkowitz, Orbach, & Esplin, 2008). Combined, this research demonstrates the necessity of conducting research that assesses parent-child conversations (See further discussion below). In an investigation, interviewers hope to obtain an untainted version of events from children and it is important to assess whether parents are preventing members of the justice system from obtaining this goal.

Potential Event Fabrication

Statistics regarding false allegations of crime by children in Canada only assess cases of maltreatment. These show that the rate of false allegations is relatively low (approximately 4% of unsubstantiated cases) with slightly higher numbers being shown in cases of parental separation (Trocme & Bala, 2005). The reports indicate that false

allegations of abuse or maltreatment are rare and are generally the result of adult, not child, fabrication (Bala, Lee, & McNamara, 2001). These findings represent cases that have been proven false throughout the course of a police investigation. Without readily available evidence to confirm or disconfirm the accuracy of a disclosure, it is impossible to get an accurate measure of just how often false allegations occur. To further illustrate this issue, the rate of unsubstantiated abuse ranges from 30% to 70% of reported child maltreatment cases (Trocme & Bala, 2005), some of which may include undetected false allegations. Allegations may occur when children's event reports have been tainted by conversations with other individuals.

In a more informal assessment of child-initiated false allegations, Faller (2007) had individuals who work with child maltreatment cases talk about their experiences with children claiming to be maltreated. Of the 192 people surveyed, 189 (98.4%) reported working on a case where they believed a child was coached. In fact, these individuals reported working on an average of 12.3 (SD = 52) alleged coaching cases. When participants were asked who they thought had coached the children involved with their cases, mothers were selected as the individuals most likely to coach children, followed by fathers and other relatives.

Further evidence of the role others play in children's allegations of criminal misdeeds can be found through media reports. Over the past several decades, multiple cases have been presented in the media that illustrate the potential negative effects of parent-child discussions of crime. Termed 'taint hearings' by some, these cases show that some children have been so suggestively questioned that their memories for an event

will never be accurate (Goodman, 2006). In the event a judge can show children's memory of an event is distorted or erased, children are not permitted to testify (Goodman, 2006). Goodman (2006) documents one such case where conversation with an aunt led two children to accuse their own mother of sexual harassment:

> Federal authorities, for instance, shared a case with me in which two young girls had been kidnapped by their father in a custody dispute and taken to live with his sister (the children's aunt), who was a Christian fundamentalist. The aunt believed the children's mother was a satanist because she was a Buddhist. The aunt proceeded to interview the children while depriving them of food and physically punishing them if they did not agree with her suggestions that the mother had sexually abused them. Eventually the children implicated their own mother. Fortunately, the aunt audio recorded her interviews of the children, and when the authorities caught up with the aunt and heard the interviews, the mother was vindicated, and the children were returned to her (pp. 819).

Some would argue the fabricated allegations only occurred because of the extreme physical mistreatment the children received. Indeed, the physical mistreatment likely helped the aunt achieve her goal. However, research on coaching children suggests that physical mistreatment is not necessary. In fact, research suggests that simply having children draw pictures of an event (Strange, Garry, & Sutherland, 2003) or pretend an event happened (Strange, Sutherland, & Garry, 2006) can lead children to recall things that have never happened. The potential exists then that parents could suggest (either intentionally or unintentionally) information to children about a crime and that children

could incorporate that information into their testimony. Unlike in the aforementioned cases that include coaching, the use of suggestible questioning techniques would be much harder to detect because they are not obvious to those who are uninformed about the role of suggestibility in child interviews (Pezdek & Roe, 1997). The current study examines whether or not parents inadvertently suggest information when they talk to their children about a theft witnessed by the children.

Questioning Techniques

To successfully testify, child witnesses and victims need to provide both accurate and complete reports of an event. Good questioning techniques are essential as research demonstrates that poor questioning techniques interfere with both the amount of information and the accuracy of information children provide (Lamb et al., 2008). For example, by asking questions that suggest an answer, questioners risk the possibility of having children respond the way they want them to respond, rather than with a true answer. A multitude of studies exist illustrating problems with police questioning techniques, and it has been suggested that police change their interviewing practices to match questioning styles deemed suitable by research (e.g., Feltis, Powell, Snow, & Scholes, 2010; Krahenbuhl, Blades, & Westcott, 2010; Westcott & Kynan, 2006). If parents question children prior to the police, it is possible that children's memory for a crime may become contaminated before they ever speak to a police officer or a lawyer. This would be problematic as research has shown that no matter how skilfully children are questioned, their recall may be incorrect if they have previously been questioned in a

suggestive manner (Thompson, Clarke-Stewart, & Lepore, 1997). It is important then to consider the types of questions parents use to extract information from their children.

Question format. Research has illustrated that the type of questions a person asks a child can dramatically influence children's recall of an event (e.g., Lamb et al., 2008; Saywitz, Goodman, & Lyon, 2002). Distinctions have been made regarding the types of questions interviewers pose. Perhaps the most common distinction is to regard questions as open-ended, direct, or yes/no questions. Open-ended questions involve asking a person for information in a manner that requires them to search their memory for an experience (Saywitz et al., 2002; e.g., tell me what happened last Tuesday?). These questions do not include cues to the information the questioner needs to know, and require an individual to search their memory for an answer. In contrast, direct questions suggest through their wording, what it is the questioner needs to know (Saywitz et al., 2002; e.g., what did you see Frank do last Tuesday?). Finally, yes/no questions provide the information the questioner needs to know and the person answering can simply agree or disagree (Saywitz et al., 2002; e.g., did you see Frank take the ball?). Most interviews include a combination of these question types.

When children are asked open-ended questions, the responses provided are lengthier than those provided in response to direct questions (Sternberg, Lamb, Esplin, Orbach, & Hershkowitz, 2002). However, children often fail to fully discuss an event when interviewers solely rely on open-ended questions (e.g., Hutcheson, Baxter, Telfer, & Warden, 1995; Sternberg et al., 2002). Hutcheson et al. (1995), for example, reported evidence of this when asking five- to nine-year-old children to recall an event in which

they had seen and heard two men set up a projector, or argue over a drill. The children in their study did not provide all of the information they could remember in response to open-ended questions, but when later asked direct questions, they were able to provide the relevant information. Similarly, Poole and Lindsay (1995) asked three- to seven-year-old children to fully describe what happened during an interaction with 'Mr. Science', and to report any additional information. Children could not completely recall the interaction. When later asked direct questions about what they had heard or seen, additional details were provided. These studies suggest that direct questions may be needed to ensure the completeness of children's reports.

The downfall of asking direct questions is that they can lead to increased error rates in the information provided. The children in Hutcheson et al.'s (1995) study provided errors of commission (mistakenly recalling things that did not happen) in response to direct questions. This has been shown repeatedly. For example, Larsson, Granhag, and Spjut (2003) had ten- to eleven-year-old children describe a film of a professional fakir, and found that children were more likely to make errors in response to direct questions than in response to open-ended questions. Likewise, Lamb and Fauchier (2001) assessed real-life forensic interviews and noted that five- to eight-year-old children were more likely to make errors in response to direct questions than in response to open-ended questions. While direct questions can aid the completeness of children's recall, they can also interfere with the accuracy of the information being provided.

Issues with the accuracy of children's recall are even more prevalent when yes/no questions are introduced. Peterson, Dowden, and Tobin (1999), for example, noted that

children interviewed about a craft activity were more likely to be incorrect than to respond 'I don't know' when asked yes/no questions. Children's answers were particularly likely to be incorrect if the response required a 'no' answer. Similar problems with children's apparent inability to answer yes/no questions correctly have been noted in other studies (e.g., Brady, Poole, Warren, & Jones, 1999; Peterson & Biggs, 1997).

The research discussed above suggests that children cannot provide complete reports without the aid of direct and/or yes/no questions, yet direct and yes/no questions can lead to errors of commission. Often then, an interviewer is forced to make the choice between an accurate report and a complete report. To counteract this, interview procedures are being developed that emphasize maximal use of open-ended questions (Orbach et al., 2000; Sternberg et al., 2002). Interviewers trained in these techniques use more open-ended questions before moving on to direct questions than interviewers using more traditional techniques, and consequently, obtain more of the details from open-ended questions than from direct questions (Orbach et al., 2000). Given the lower necessity for direct questions, the hope is that children interviewed using these procedures will provide increased information, with fewer errors of commission. Without training, interviewers are unlikely to recognize the benefits of such questioning techniques. Although many police officers have been trained to use interview procedures deemed suitable for interviewing children, they continue to be biased toward using direct and yes/no questions (Aldridge & Cameron, 1999; Kebbell, Milne, & Wagstaff, 1999; Krahenbuhl et al., 2010). If police officers use inappropriate question types, even when

they are sometimes trained not to ask such questions, it seems logical that parents who question their children would rely on similar deficient questioning procedures.

Leading, misleading, and unanswerable questions. In addition to considering the type of questions being asked, it is also important to consider the wording of questions. Information that suggests what the questioner expects to hear can be included in any question. Questions that suggest information to the respondent are generally labelled as leading or misleading questions. Leading questions suggest correct information. For example, a person might be asked 'Describe the man you saw', when the gender of the person had not been mentioned. This assumes the person in question was a man. If the person was, in fact, a man, correct information has been suggested. In contrast, if the person was a woman, the question would be labelled a misleading question, as it suggests incorrect information.

To assess the influence of leading questions, Cassel, Roebers and Bjorklund (1996) compared kindergarten students, grade two students, grade four students, and adults on their memory for events when they were being asked questions that became progressively more leading. All interviewees responded with similar amounts of correct and incorrect information. Unfortunately with the most leading questions, individuals complied, but their answers were just as likely to be incorrect as correct. When later asked recognition questions (pictures showing what happened or multiple choice questions), all participants, even the youngest children, could recognize the correct information. This suggests that despite knowing the correct information, interviewees

may give in to the perceived social demands of the interviewer when answering questions.

When misleading questions are considered, even more incorrect answers are provided. Thompson et al. (1997), for example, had five- to six-year-old children witness a janitor cleaning or playing with toys. In a third condition, the janitor asked some children not to tell anyone that he had been playing. The children were later interviewed on four separate occasions. Two initial interviews were conducted by the experimenter and by a trained interviewer posing as the janitor's boss. These interviews were either neutral (no suggestion was made regarding the janitor's behaviour), incriminating (it was suggested that the janitor was playing when he should have been doing his job), or exculpatory (it was suggested that play activity was actually part of the janitor's job). A third immediate interview was conducted by the parent and a one-week follow-up interview was conducted by the parent. Parent interviews were always neutral. Children who were only interviewed in a neutral manner consistently gave correct information. Likewise, those who were initially interviewed in a manner that suggested it was okay for the janitor to play generally gave correct information. In contrast, those who were initially interviewed in an incriminating manner that included misinformation changed their responses over time to match the suggestions of the initial interviewer, regardless of what they had actually seen. At the one-week follow-up interview, the children who had actually seen the janitor play could not be distinguished from those who had only seen him clean.

In addition to leading and misleading questions, some questions may be unanswerable; that is, interviewees cannot respond to these questions either because they did not see the event in question or because the interviewer is mistakenly informed about what actually happened (Ricci & Beal, 1998). The correct answer to an unanswerable question is 'I don't know'. Depending on how questions are posed, children and adults alike have difficulty responding to unanswerable questions (Waterman, Blades, & Spencer, 2001).

In an assessment of responses to unanswerable questions, Waterman et al. (2001) had five- to nine-year-olds and adults answer either answerable or unanswerable questions about two short stories they had heard. Both groups performed well on the answerable questions and could correctly respond 'I don't know' to unanswerable open-ended questions. Both groups had difficulty correctly responding to unanswerable direct questions. These same authors later replicated this finding with five- to nine-year-olds by asking the children questions about pets and food that had been mentioned in an earlier discussion with an adult confederate (Waterman, Blades, & Spencer, 2004). In this study, they also found that in addition to direct questions, children had difficulty correctly responding to unanswerable yes/no questions (Waterman et al., 2004). This difficulty appears to increase when unanswerable questions are repeated. Krahenbul and Blades (2006) had five- to nine-year-olds watch a live presentation and then asked them the same twenty questions three times. When the questions were unanswerable, children's responses changed when the questions were repeated a second time, and children continued to give the second answer when questioned the third time around. Moreover,

motivating children to answer questions correctly also does not help (Roebers & Fernandez, 2002). For instance, when children and adults are offered a reward for answering all questions posed correctly, they can generally answer unanswerable open-ended questions correctly, but continue to have difficulty answering unanswerable direct questions (Roebers & Fernandez, 2002).

Interviewer bias. The use of leading, misleading, or unanswerable questions is generally not intended. Rather, the questioner has prior beliefs about what happened that leads him/her to ask certain questions (Bruck & Ceci, 1997). This is commonly referred to as interviewer bias (Bruck & Ceci, 1997). In an assessment of interviewer bias, Ceci and Huffman (1997) either correctly informed a female interviewer about what had happened to a group of children or misinformed her. More specifically, in the misinformation condition the interviewer was led to believe that someone had licked the elbows of the children she was interviewing. When the interviewer was given the correct information, she was able to get children to recall 93% of the information that had occurred. No children made a false accusation. The only mistakes children made were errors of omission (forgetting to mention some things that had happened). In contrast, when the interviewer was misinformed, 34% of the three- and four-year-olds and 18% of the five- and six-year-olds made false accusations about having their elbows licked and errors of commission. When these same children were interviewed two months later by a second interviewer who had been led to believe they had been licked, they continued to provide the same story with added details and increased confidence in the accuracy of their reports.

The combined effect of suggestive questioning techniques. Perhaps most troubling is the finding that these techniques can have a cumulative effect (Garven, Wood, Malpass, & Shaw, 1998). The McMartin Preschool case is one of the most famous taint hearing cases. In this case, preschoolers were suggestively questioned by parents and investigators about potential abuse by workers at their school. The interviews conducted by investigators were recorded, and the interview techniques used were noted (Garven et al., 1998). Investigators in this case had used a combination of suggestive questions, telling children what others had already said about what had happened, positive and negative consequences that would occur if the children did not say what happened, repetition of questions, and invitations for speculation (Garven et al., 1998). In a subsequent study, Garven et al. (1998) had a man go to several preschools and read a story to three- to six-year-old children. The children were later interviewed about the experience using suggestive questioning alone or a combination of the McMartin techniques. Interestingly, 58% of children who had been interviewed using the McMartin techniques made false accusations compared to 17% of children who were asked suggestive questions alone. The techniques that appeared most powerful were reinforcement (praise or telling the child about potential negative consequences of poor answers) and social influence (telling the children what others had said). The authors note that the children in their study were only exposed to the combined techniques for 4.5 minutes, yet showed error rates close to 60%. Suggestions were more readily accepted as the interview proceeded. In the McMartin case, children were exposed to these techniques for an hour.

Given the potential fear associated with knowing their child has experienced or witnessed something negative, many parents would not know how to react. They would want to ask questions that confirmed or disconfirmed the possibility that their chid had seen or experienced something. Some of the ineffective questioning techniques reviewed above may be implemented, especially since parents do not receive training, supervision, or feedback on interviewing that is required to avoid asking improper questions. The parent-child relationship and the uniqueness of parent-child discussion patterns would also play a role in the content and nature of such conversations.

Parent-Child Discussions

Early parent-child discussions. From the time children begin to speak, they talk with their parents about things that have happened (Fivush & Fromhoff, 1988; McCabe & Peterson, 1991; Nelson & Fivush, 2004; Peterson & McCabe, 1994). Children initially have no knowledge of what to include in a narrative or discussion of an event and so parents scaffold children's conversation (Peterson & McCabe, 1994). Parental scaffolding refers to the parental provision of age appropriate cues to assist inexperienced individuals. With time, fewer cues are provided and children automatically provide their own narratives of an event (Haden, Ornstein, Eckerman, & Didow, 2001; McCabe & Peterson, 1991). In very early conversations, parents provide practically all of the information. Parents name the component features of the event and focus children's attention toward event components that are more important (Ornstein, Haden, & Hedrick, 2004). At this point, children will often merely agree or disagree with their parent. With time, it is thought that children learn both the importance of including various types of

information and how to include information (Ornstein et al., 2004). Children then start providing information habitually and become less reliant on the parent; which generally occurs by the end of children's preschool years (Haden et al., 2001; Ornstein et al., 2004). These early conversations with parents provide the foundation for the types of information children should include in later discussions with both parents and other individuals.

Exploration of parent-child discussions has shown that parents differ with regard to how elaborative or topic-extending they are in their discussions with their children. Highly elaborative parents provide detailed descriptions of past events, ask many questions, and elaborate on information (Fivush & Fromhoff, 1988; Fivush, Reese, & Haden, 2006; Nelson & Fivush, 2004; Peterson & McCabe, 1992; 1994). In contrast, repetitive or topic-switching parents provide few details in descriptions of past events, ask few questions, and tend to repeat questions (McCabe & Peterson, 1991; Peterson & McCabe, 1992; 1994). This contrast is an important finding as parents who are more elaborative and who teach children the importance of discussing events in clear temporal and spatial contexts have children who provide more detailed narratives at the end of their preschool years than children of parents who are repetitive or topic-switching (Fivush, 1991; Fivush & Fromhoff, 1988; Fivush et al., 2006).

Questions posed by elaborative parents generally require children to think about their answers and, thus it is thought, that they learn to rehearse events and to search their memories for event details (Peterson, Sales, Rees, & Fivush, 2007). With time, all parents become more elaborative as children learn to better discuss events, but

elaboration still varies across individual parents (Sales, Fivush, & Peterson, 2003). The children of those parents who are initially repetitive or topic-switching may rely on parental scaffolding for longer time periods. In addition, depending on the nature of an event and the event complexity, their children may require parental scaffolding to discuss a particular event beyond their preschool years (e.g., Goodman, Quas, Batterman-Faunce, Riddlesberber, & Kuhn, 1997).

Parent-child discussion of complex events. Parent-child discussion aids children's ability to comprehend and recall events (Boland, Haden, & Ornstein, 2003; Clarke-Stewart & Beck, 1999; Goodman et al., 1997; Lange & Carroll, 2003). Such discussion is particularly important when an event is novel or ambiguous. Boland et al. (2003), for example, illustrated this by staging a camping event with mothers and their three-year-olds. The children had no prior knowledge of camping and thus it was only through interaction with their mothers that children were able to understand what was happening and to focus on key event details. Similarly, Clarke-Stewart and Beck (1999) had five-year-olds watch and recall the movie 'Prancer'. From discussions with the mothers of those children who better recalled the movie, Clarke-Stewart and Beck found that these mothers were more likely to say they would ask children to tell the story instead of providing the details, to ask children to recount what happened and to fill in the missing pieces, to ask children whether they had any questions, to assess children's comprehension of the story, and to ask about the children's feelings - practices that are all consistent with an elaborative style of discussion. Goodman et al. (1997) further showed that when three- to ten-year-olds' memory for a medical procedure known as the voiding

cystourethrogram or VCUG (a medical procedure that involves urethral catheterization) was assessed, children's memory was better if their parents had discussed the event with them, or if they had had previous experience with the VCUG. Consideration of parent-child discussion is important then as even older children may need to rely on appropriate scaffolding to be able to discuss novel or complex events.

Parent-child discussion of negative events. It is important to consider the emotional nature of an event, in that parent-child discussions differ across various emotional contexts. In a comparison of the recall of two- to eleven-year-olds of a tornado versus two non-traumatic events, Ackil, Van Abbema, and Bauer (2003) found that children's recall of the tornado was narratively more coherent in that it contained more contextual details, temporal connections, and discussion of causes and consequences than children's recall of non-traumatic events. Although it did not appear to be assessed in this particular study, these findings may be explained by the questions parents asked in these discussions. For example, in a comparison of three- to five-year-olds' recall of an injury versus a positive event, Sales et al. (2003) found that parents asked more open-ended memory questions about the negative event and more yes/no questions when discussing the positive event. Open-ended questions require the person being interviewed to retrieve or think about the event information that needs to be provided, while yes/no questions provide all of the information and the person answering simply needs to agree or disagree (Saywitz et al., 2002). It could be inferred then that by asking more open-ended questions, parents are more elaborative in their discussion of negative than of positive events.

These conversations appear to be important in the context of children's memory for negative events (Laible & Panfile, 2009). Illustrating this, Goodman and colleagues (Goodman, Quas, Batterman-Faunce, Riddlesberger, & Kuhn, 1994; 1997; Quas et al., 1999) have shown that when parents do not sympathetically talk to and physically comfort their children after a VCUG, there is an increase in children's commission errors (providing information that did not occur) when answering misleading questions (questions that contain incorrect information) and children make more omission errors (forgetting or failing to provide information that did occur) in response to all types of questions.

The aforementioned findings suggest that parental reminiscing about negative experiences may help children cope with their emotions. It may be that without such discussions, children are left to focus on the emotional impact of the event because they do not have the cognitive capability to consider both their emotions and what happened. In disciplinary situations, for example, conflicts with children allow parents the opportunity to explain the importance of listening to and obeying your parents (Turnbull, Carpendale, & Racine, 2009). Talking to children about the negative emotions and their consequences allows children to better comprehend their wrong behaviour and the subsequent repercussions (Fivush, Berlin, Sales, Mennuti-Washburn, & Cassidy, 2003; Turnbull et al., 2009). The possibility that discussions of negative emotions allow children to better comprehend a situation is further supported by research comparing parent-child discussions of a variety of negative emotions. Mothers are more elaborative when discussing fear with their children than when discussing sadness or anger (Fivush et

al., 2003). Furthermore, when an event is characterized by fear, mothers provide more emotional resolutions than when an event is characterized by anger or sadness (Fivush et al., 2003). By explaining the resolution of the emotional aspect of an event, mothers appear to be providing a scaffold to their children. The explanation of the emotion is handled by the mother and children are able to concentrate on their understanding of the event itself.

Fortunately, crime is novel to most children. Parent-child discussions could influence children's recall of a criminal event. If the event is complex or elicits fear, children may need to rely on parent scaffolding (Boland et al., 2003; Clarke-Stewart & Beck, 1999; Fivush et al., 2003; Goodman et al., 1997; Turnbull et al., 2009). It seems plausible that children may agree with information parents suggest in their questions and later incorporate this information into their recall of an event. In contrast, it may be that parental discussions with children allow the children to ignore the emotional impact of the event and to instead focus on their recall of what actually happened. If parents were present during the event, then they can help children construct a narrative of that event (Peterson & McCabe, 1994). In contrast, if parents were not present at the time of the event, then information they provide may be incorrect; that is, they might ask leading, misleading, or unanswerable questions.

Recounting versus reminiscing. Early research assessing parent-child discussions of an event appeared to focus on events that were jointly experienced by parents and children. Fivush (1994), for example, had parents interview their children about personally experienced events (e.g., Halloween) at 40, 46, 58, and 70 months of

age and recorded those conversations. Comparisons of the information provided by children across interviews showed that children recalled about 9% of the information initially mentioned by the parent and not jointly discussed, and 20% of the information that they themselves mentioned that was not jointly discussed. In contrast, 35% of the information initially mentioned by the mother and then jointly discussed, and 55% of the information initially mentioned by the child and then jointly discussed was mentioned in later interviews with both parents and with an experimenter. Regardless of who initiated the discussion, children were more likely to discuss the information that had been jointly discussed than information solely mentioned by the child or the mother.

Tessler and Nelson (1994) found similar results when they had mothers and their three-year-old children visit a museum. Mothers were asked to either interact with their children as they normally would or to just answer their children's questions and to avoid elaborating. When children were later interviewed about the experience, they did not recall objects solely mentioned by their mother or objects they themselves solely mentioned. In contrast, regardless of the differences in the specific objects discussed by the various mother-child dyads, children recalled those objects that had been jointly discussed. This suggests that parent elaboration aids children's recall.

Children sometimes experience events when their parents are not present and it is important to assess parent-child discussion of these events. McCabe and Peterson (1991) suggested that, unlike in discussions of jointly experienced events, in discussions of events that children experienced alone, parental scaffolding would not be used and

children would likely recall information on their own. Very few studies have assessed the influences parent-child discussions have on events that were not jointly experienced.

In one such assessment, MacDonald and Hayne (1996) had three- to four-year-old children participate in an event without their parents being present. Parents were told not to ask their children about the event, but to keep a diary of any conversation that their children initiated about the event for one week following the event. Results showed that all children initiated at least one conversation with their parents about the event and that the information provided was highly detailed and accurate. Interestingly, children provided more information when later shown photos of the event. Most of the information provided by children was descriptive, indicating that children were detailed in their event discussions.

In a more recent study Leichtman, Pillemer, Wang, Koreishi, and Han (2000) recorded a visit a preschool teacher made to her classroom with her new baby. The parents of the four- to five-year-olds who were part of the class were not present at the time of the visit, but talked to their children about it later in the day. All children were interviewed by an experimenter three weeks later. Mother's conversation style affected children's recall. More specifically, children of elaborative mothers recalled a higher number of details about the event and were more accurate in their provision of information than children of mothers who were not elaborative. In contrast, there was no relationship between mother's repetitiveness and either the amount of information recalled or information accuracy. Further supporting the role of mother's conversation

style, the amount of information recalled in the earlier interviews predicted the amount of information children recalled in response to a trained interviewer three weeks later.

In the two previous studies, the events the children experienced were either positive or neutral. Neither study required children to respond to unanswerable questions (e.g., asking about the colour of the baby's blanket when there was no blanket). When children discuss crime with their parents, the crime will likely have a negative connotation and parents will ask children about their most serious concerns. Questions will be asked with no knowledge of what the children have actually experienced. As discussed in a previous section, discussion of negative or complex events may require more parental scaffolding than would be required in discussions of positive or neutral events like those discussed above. The lack of comparison between reactions to positive and negative events limits the applicability of the studies just discussed.

Comparing parent-child discussions to experimenter-child discussions. Although research comparing parent interviewers to trained interviewers has been conducted, there are a number of limitations. Ricci, Beal, and Dekle (1996) had kindergarten children view a slide show of a minor theft. These five-year-olds were then interviewed by either a parent or a trained interviewer. Parents were given a typed list of questions and were told they could rearrange the questions however they wanted. Trained interviewers used the same list of questions that had been given to parents. Three questions asked about the perpetrator, three about the setting, and one question was a misleading question. Children recalled less information when interviewed by their parents than when interviewed by a trained interviewer. In contrast, when parents were

given a script and asked to follow it, children revealed a similar amount of information to both their parents and to the trained interviewer. Ricci et al. (1996) indicate that the parents' questioning style may have influenced children's responses. Parents were impatient and expected children to answer right away, they repeated questions as if not believing children's responses and as a consequence, some children actually changed their answers. When interview transcripts were assessed, 71% of parents used techniques that have been previously deemed ineffective. It might be the case that the information parents would request on their own could be very different from the information parents request when given potential questions to use.

In a similar study, Jackson and Crockenberg (1998) had four-year-old girls watch a video of two children having a snack. Children were later interviewed by either a parent or a stranger using a misleading or a non-misleading standardized interview. When children were interviewed using non-misleading questions, they gave more correct and incorrect information to their parents than to the trained interviewer. In contrast, children were more suggestible when interviewed by the stranger than by their parents in the misleading condition. Children were more likely to correct their parents when the parents presented incorrect information than they were to correct the stranger. Jackson and Crockenburg (1998) suggest that children likely recognized the mistakes adults were making because it had been made clear that the adults had not seen the video and only knew it was about two children having a snack. Mulder and Vrij (1996) have also shown that four- to ten-year-olds give fewer incorrect answers when they are explicitly told that the interviewer cannot help them to recall the event. Jackson and Crockenburg (1998)

also reason that because of the daily conversations children have with parents and the high likelihood that children have had occasion to contradict their parents, children felt more comfortable correcting their parents than a stranger. Thus, the demand characteristics of the interview might have led to some of children's mistakes.

Goodman, Sharma, Thomas, and Considine (1995) examined the interview performance of four-year-old children about a play session they experienced. Mothers were not present during the play session, but were later shown a video that supposedly demonstrated the play activity. Half of the parents were instead shown a video that had misinformation or missing information about what had actually occurred. Children were interviewed by either their mother or a stranger. When specific information was considered, children were more accurate in response to their mothers. In addition, children were more accurate when mothers asked children about actions that had occurred, or alleged abuse that had not occurred, than when the same questions were posed by strangers. There were no differences in accuracy for person or room information. The results of these studies suggest that how children respond when questioned by parents is not necessarily the same as how they respond when questioned by strangers. Children may provide different information and may react differently when they are interviewed by parents versus strangers.

There are a number of limitations in the few studies that have assessed the influence of parent-child discussions on children's recall. In all cases, parents have been provided with information about the event and the questions. The events discussed have generally been fairly innocuous. In the one study that included a theft, a slide show was

used (Ricci et al., 1996). The lack of continuous detail in a slide show leaves one to wonder about its usefulness as a memory stimulus. The children assessed have all been very young, ranging in age from four- to ten-years-old. Only one study included children older than five years of age. All have included preschoolers who are likely still relying on parent scaffolding of information. Finally, only Goodman et al.'s (1995) study looked at the specific types of information to be recalled. In a forensic scenario, some types of information would be more important than others.

Child Event Discussions

In the majority of studies assessing children's memory for varying events, children have been interviewed by experimenters or trained interviewers. Consideration of these studies indicates the importance of examining event content, the logical structure of an event, and whether children are asked to recall central or peripheral information about an event.

As found with research assessing children interviewed by parents, interviews conducted by trained interviewers indicate the importance of event content (i.e., whether the event was a positive, neutral, or negative event). Ochsner, Zaragoza, and Mitchell (1999), for example, had first grade students view a video of either a neutral event or a theft. The videos were identical except for the final few seconds in one of the videos where the theft did or did not occur. The researchers showed that children who viewed the theft were more accurate on both recall and recognition tasks than children who viewed the same event with no theft. When children's responses to misleading questions were assessed, there were no differences in the suggestibility shown by children in the

two conditions. This result again suggests that assessing children's memory for neutral events may not be comparable to assessing their memory for negative events.

The logical structure of the event is also important. For example, Peterson and colleagues (Peterson, 1996, 1999, 2002; Peterson & Bell, 1996; Peterson & Whalen, 2001) have completed several studies using trained interviewers to assess two- to thirteen-year-old children's memories for an injury and the subsequent hospital treatment. Children's memory for the injury experience being recalled in these studies was better than their memory for the hospital treatment. Peterson (1999) suggests that children see the injury as more coherent than the hospital treatment. Children experience the injury happening in a successive pattern and understand each stage as it happens. In contrast, links between events at the hospital (e.g., registration and triage) may not be apparent, making them more difficult to describe.

Conroy and Salmon (2006) showed similar findings when they had five- to six-year-old children visit a research assistant posing as a pirate. Consideration of the event revealed that some scenes were more logically connected or easily followed and understood than others. Logically connected scenes were better remembered than scenes that had no real connection. Interestingly, some aspects of the event were discussed prior to the final interview. Discussion did not help or harm children's recall for scenes that were logically connected. In contrast, when scenes were not logically connected, children provided less information and were able to answer fewer questions unless those scenes had been previously discussed. The discussion of arbitrarily connected scenes seemed to help children recall them. As shown with research conducted with children

and their parents, children appear to need some form of scaffolding to aid their recall of ambiguous events.

It is also important to consider the type of event information children are being asked to recall. Cassel and Bjorklund (1995) had six- to eight-year-olds and adults watch a video of a boy and girl arguing over a bike. Participants were later questioned and it was found that children's correct recall was at floor levels for the appearance of the bike at immediate, one-week, and one-month interviews. When a more important component of the video was assessed, whether or not the boy was allowed to take the bike, participants were more likely to be accurate and were less likely to change their answers across interviews. Similar findings have been found when comparisons are made for children's recall of people, places, and actions. Mulder and Vrij (1996) noted that eight- to ten-year-olds are better able to describe individuals than four- to five-year-olds. Oschner et al. (1999) have shown that children are able to provide more information and are more accurate in their discussion of actions than in their discussion of people. Similarly, Memon and Vartoukian (1996) noted that five-year-olds and seven-year-olds recalled more action statements than descriptors, but that children were equally accurate in their provision of both.

Part of the difference in children's ability to better describe some things than others can be explained by the difference in their recall for central (details that are crucial to the recall of a particular action, object, or person) versus peripheral (details that are not crucial to the recall of a particular action, object, or person) information (Roebers & Schneider, 2000; Shapiro, Blackford, & Chen, 2005). It is important to consider not just

overall recall, but recall of central versus peripheral information, as well. For example, in the Mulder and Vrij (1996) study that assessed recall of specific details, there were no differences in the accuracy of central information as it pertained to either actions or objects, but children were more accurate in their provision of peripheral information about actions than in their provision of peripheral information about objects.

Other studies have documented age differences in the provision and accuracy of central versus peripheral information. Roebers and Schneider (2000), for example, found that younger children (six-year-olds) had greater difficulty recalling the central details than older children (eight- to ten-year olds) and adults when they were asked to recall a theft. In contrast, there were fewer age differences in recall of peripheral information with six year-olds and eight-year-olds recalling similar amounts of peripheral information and six year-olds recalling significantly less peripheral information than ten-year-olds and adults (Roebers & Schneider, 2000). Similarly, Shapiro et al. (2005) had children watch a video of a bike theft and found that children (six- to ten-year-olds) and adults alike, recalled more central than peripheral crime details. The details about the crime itself were remembered better than appearance details about the bike. The adults and nine- to ten-year-old children recalled more central crime information than the six- to seven-year-olds. The nine- to ten-year-olds recalled more appearance information than the six- to seven-year-olds and adults, and finally the nine- to ten-year olds recalled more about the bike than the six- to seven-year-olds who in turn recalled more about the bike than the adults. The differences in recall suggest age differences in what children consider about an event. As well, the differences in recall for central versus peripheral

information suggest that it is important to consider recall for both central and peripheral details when recall is evaluated.

There are also differences in the ability to recall central versus peripheral information as a function of the type of questions asked and as a function of the time of the interview. Shapiro et al. (2005) demonstrated that misleading questions immediately increase the suggestibility for peripheral information. However, suggestibility for central information only occurs after a delay. A closer look at their data indicated when misleading questions were asked immediately, suggestibility interfered most with recall for the least recalled category of information, peripheral appearance, and least with the best recalled category of information, central crime. Over a delay, introduction of misinformation interfered with recall of central crime information, as well. It seems then that it is impossible to get a complete picture of the influence that misleading questions have on children's recall by analyzing only initial interviews, follow-up interviews, or information recalled as a whole.

As should be evident from the above, it is important to look at recall of the various components of an event. In the present study, the event is a crime (observing a theft) and hence, it is important to consider recall of people, actions, and setting. It is also important to recognize the importance of considering both central and peripheral information since people, regardless of age, have different capabilities as it pertains to recalling these. Finally, it is important to consider the interview itself, as well as the timing of the interview and the effects these have on recall. To date, studies that have

assessed the influence of parent-child discussions on the completeness and accuracy of children's recall, have failed to include any of these variables.

Multiple Interviews

When children witness or experience a crime, they undergo numerous interviews to assess their memory. It is important then to consider how earlier discussions influence later recall. Research assessing multiple interviews shows conflicting findings in regard to whether additional interviews help or hinder later recall.

Goodman, Bottoms, Schwartz-Kenney, and Rudy (1991), for example, suggested that multiple interviews aid children's recall of an event. In their study, three- to seven-year-old children were interviewed two and four weeks after receiving an inoculation. In the four-week follow-up interview, children who had experienced an interview at two weeks were more accurate in answering specific questions about the inoculation than children who did not experience an intervening interview. There were no differences between the groups in their suggestibility toward misleading questions. In this study, the intervening interview appears to have aided children's recall of the event. Children who were interviewed on more than one occasion were more accurate in the four-week follow-up interview than children who were only interviewed once.

Contrasting this, in the aforementioned study by Thompson et al. (1997) where incriminating evidence was introduced regarding the janitor in earlier interviews, five- to six-year-old children later accused the janitor of playing with toys when he should have been cleaning. Likewise, Ceci and Huffman (1997) showed that misinforming an interviewer could lead children to falsely recall information that would be carried into

later interviews. In these studies, earlier interviews hindered children's later recall. The main difference between these studies and the Goodman et al. (1991) study was the interview itself. Thompson et al. (1997) and Ceci and Huffman (1997) included misleading questions in the earlier interview which likely interfered with children's ability to accurately recall the event, while in the Goodman et al. (1991) study, the early interview was neutral and discussion of the event provided children with the opportunity to rehearse what had happened.

Peterson, Parsons, and Dean (2004) found a somewhat different effect when they interviewed three- to thirteen-year-olds who had been injured one year after their injury and introduced misinformation. When children were re-interviewed about their injury one week following the provision of misinformation, only two preschoolers included any of the incorrect details. Quas et al. (2007) suggested that the inclusion of misinformation from earlier interviews into a current interview may depend on the timing of the introduction of misleading information. In their assessment of three- and five-year-olds' memory for an interaction with a man, they found that when misleading information was introduced close to the time of the actual event, children were fairly resistant and did not falsely suggest that they had played with the man. In contrast, when misinformation was introduced later, children were more likely to falsely suggest that they had played with the man.

Differences in the influence of multiple interviews on children's memory appear to be the result of an interaction among interviewer bias, question types, and the timing of the misinformation. When interviewers are biased toward believing something happened,

children can be inadvertently convinced that incorrect details did in fact happen. For example, studies have shown that children incorporate misinformation from a book their parents have read to them into their memory for a similar event (Poole & Lindsay, 1995; 2002). No study is known to have assessed whether questions parents ask have a similar effect.

As previously discussed, errors in recall that are a consequence of the questions asked are particularly likely to occur when more direct forms of questioning are used. Something that has not been previously mentioned is the influence of time of recall. Children best recall events soon after they have occurred. As with anyone who experiences something, memory fades with time (e.g., Quas et al., 2007). If children are interviewed within a certain time frame, their memory for the event consolidates and they will better remember the event for longer time periods (Gobbo, 2000). The specific time frame depends on the event. If an interview occurs outside of this time frame, forgetting will have already started. The introduction of misinformation is most damaging when children have begun to forget an event. At this time, they cannot search their memories for the details that have or have not occurred easily, and hence, will be more likely to incorporate suggested information into their memory for an event.

Summary

Parents are generally the first people to talk to children about an event that they have witnessed or experienced (Berliner & Conte, 1995; Goodman, 2006). As shown above, research suggests that the types of questions asked and the content of those questions can influence what children recall about an event. If children are questioned in

a suggestive manner, that is, if the questioners suggest to children what they believe happened, children's memory for the event may not be accurate. Once children have been questioned in a suggestive manner, later interviews, no matter how well they are conducted, may not be effective in determining what children remember (Thompson et al., 1997). The early interview will likely affect the accuracy and the completeness of children's later reports. It has been suggested that parent-child discussions of an event contaminate children's memory (Goodman, Quas, Bulkley, & Shapiro, 1999), yet this possibility has not been explored. Studies that have been conducted to assess parent-child discussions have included discussions of children's recall for relatively mundane events such as riding a pony (MacDonald & Hayne, 1996), and in many cases, parents were present for the events (e.g., Fivush, 1994; Tessler & Nelson, 1994). In addition, parents have been given, at the very least, a semi-structured interview that they were told to follow. Without providing parents with the opportunity to generate their own questions, it is impossible to know what parents would ask if they were really placed in this circumstance. Likewise, how parents react and speak to their children about a mundane event may not be representative of how they would speak about a crime. Furthermore, when parents are present during the event, the subsequent parent-child discussion would be more like reminiscing than children recounting, which are two very different things. When children are witnesses in criminal cases, recounting is much more likely.

The Present Study

The present study examines what parents actually ask if they believe their children have witnessed or experienced a crime in their absence, as well as the influence of these early conversations on children's later recounting of the crime. Seven- to ten-year-old children were recruited because most studies that have assessed parent-child discussions have included younger children. An attempt was also made to assess the influence of parent-child discussions, when the children being assessed were not relying on parent scaffolding to provide information in all contexts. To aid communication, this study has been divided into two parts. In the first part, parents asked children about a staged theft that the children witnessed in the parents' absence. Parental questioning style was assessed along with children's responses to parent questions. In the second part, the parent-child interviews were compared to interviews conducted with a second group of children who had witnessed the same theft, but were interviewed by trained interviewers. As well, the influence of these early interviews (conducted by either a parent or by a trained interviewer) on later interviews was assessed.

Part I. Parent-child dyads were recruited for the first portion of the study. Seven- to ten-year-old children were shown one of two videos of a theft. The parents were asked to leave the room with one experimenter, while children watched the video with a second experimenter. The purpose of this was to ensure the children knew that their parents did not know what had happened in the video. Once children had seen the video, they were asked if they knew what a witness was. Regardless of the children's response, the term 'witness' was explained, and they were told they were now pretend

witnesses. The children were asked if it would be okay to question them as though what they had seen on the video was real. This was explained in terms the children understood, and any questions they had were answered. Parents were then asked to return to the room. In the children's presence, the parents were told that their children had just witnessed a theft; they were asked to question their children as they would if they believed that the children had actually witnessed a theft. The experimenters left the room in an attempt to make both parents and children as comfortable as possible. The parent-child discussions were audio recorded.

Parent interviews of their children were assessed to determine what parents asked children about, the number of open-ended, direct, and yes/no questions parents asked, how children responded to parent questions, and whether children incorporated information suggested by their parents into their responses. All information was assessed for potential differences due to the gender of the child, the age of the child, and the video watched.

The following hypotheses were developed for this portion of the study:

1.1 Parents would ask children to describe what happened in the video. No extant literature has assessed what parents ask children in such cases. Given the unemotional nature of the event, it was expected that parents would simply ask children to describe the theft and what the thief looked like.

1.2 Parents would ask children a high proportion of direct and yes/no questions. There is no previous literature with parents to suggest what to expect. However, it is known that although police officers are trained to use open-ended questions, they instead rely

on direct questions and yes/no questions (Aldridge & Cameron, 1999; Kebbell et al., 1999; Krahenbuhl et al., 2010). It was thought that parents would do the same.

1.3 Children would make more errors in response to direct questions and yes/no questions than in response to open-ended questions. This is consistent with what has been shown in past literature. Direct questions are generally needed to get complete reports from children (e.g., Hutcheson et al., 1995; Sternberg et al., 2002). However, with the introduction of direct questions, children tend to make errors of commission (e.g., Hutcheson et al., 1995; Larsson et al., 2003).

1.4 Children would not incorporate parent-suggested information into their accounts of the video. Children are recounting, not reminiscing, with the parent. Children are aware that parents have not seen the video. Past research shows that when warned that the person questioning does not have any idea about what happened, children are able to resist suggested information (Jackson & Crockenberg, 1998; Mulder & Vrij, 1996). This has been shown to be particularly true when parents are the people doing the suggesting (Jackson & Crockenberg, 1998).

Part II. In the event that children actually witnessed a crime, their parents would talk to them and this would be followed up with conversations with police officers, other legal personnel, and potentially, social workers. Early discussions with parents could potentially influence what children would say in these later discussions. To assess this possibility, children were interviewed on either one or two additional occasions. Half of the children tested in Part I were interviewed by the experimenter who was not in the room during the video immediately following their discussion with a parent. All children

were interviewed again by a different experimenter one week later. Both a second immediate interview and a delayed follow-up interview were used to determine the differential influence speaking with a parent might have on children's recall over time. By using the two delays, it was possible to see whether the children would be more likely to incorporate parent-suggested information in an immediate interview or in a later interview. The design made it also possible to assess whether the middle interview experienced by some children would have an effect on the amount and accuracy of information provided by children during the one-week follow-up interview.

It is possible that the immediate interview could have an effect on the amount and accuracy of information children recalled, regardless of who conducted it. To control for this possibility, an additional group of children was added. These children watched the video and were given the same information about being a witness. The only differences were that these children were interviewed by an experimenter instead of a parent and the experimenters used a structured interview instead of an interview based on their own style (See Appendix A for a copy of the structured interview protocol). As with those children interviewed by a parent, half of the children in this condition were then interviewed immediately and after a one-week delay, while the other half of the children were only interviewed after a one-week delay. All interviews were audio recorded. Figure 1 shows the complete research design.

All interviews conducted with children were assessed to determine how much information children remembered, as well as the accuracy of the information children remembered. Each video was watched by several individuals and the details of the

setting, actions, perpetrator, and victim were recorded. A complete list of details that children might remember was made (See Appendix B). Children's recall was assessed to determine the proportion of information they recalled relative to how much they could have recalled. Information provided was then marked as correct or incorrect. The proportion of correct recall was calculated relative to the overall amount of information they recalled. Finally, as past research suggests, differences in the ability to recall central and peripheral information, the details provided, and their accuracy were divided accordingly. Differences in the completeness and accuracy of information were assessed for all three interviews as a function of initial interviewer (parent or experimenter), video, child gender, and child age. For the one-week interview, effects of number of interviews were also assessed.

The following hypotheses were developed for this portion of the study:

2.1 Children would provide more information in response to experimenter questions than in response to parent questions. This was expected to hold regardless of whether overall recall was considered or whether information provided was divided into central and peripheral information. Research that has assessed children's provision of information to parents has generally included a structured or semi-structured interview (Jackson & Crockenberg, 1998; Ricci et al., 1996). When parents have used a structured interview format, children have provided an equal amount of information to parents and interviewers or more information to the parent (Ricci et al., 1996). When parents have used a semi-structured interview format, the children have

provided more information to the interviewer than to the parents (Ricci et al., 1996). The researchers attributed this to the poor questioning style of the parents (Ricci et al., 1996). It was thought that the same thing would happen here.

2.2 Children would be more accurate in response to experimenter questions than in response to parent questions. It was believed that parents would resort to direct and yes/no questions. The structured interview used by the interviewers included mostly open-ended questions with direct questions tailored to the information children provided. As past research has shown that children make more errors in response to direct and yes/no questions (e.g., Hutcheson et al., 1995; Larsson et al., 2003), it was thought that they would make more errors in response to parents than in response to trained interviewers who were not using as many direct and yes/no questions. It was believed this would be particularly evident in children's recall of peripheral information. Past research has shown that suggestive techniques used in earlier interviews are more likely to interfere with recall for peripheral information (Shapiro et al., 2005).

2.3 Children who were initially interviewed by parents would continue to provide less information in subsequent interviews. Past research has shown that what is recalled in earlier interviews influences what is recalled in later interviews (Pipe, Sutherland, Webster, Jones, & La Rooy, 2004).

2.4 Children who were initially interviewed by parents would continue to show lower rates of accuracy in later interviews than children interviewed by an experimenter. As shown by Thompson et al. (1997), regardless of how well an interview is conducted, mistakes in earlier interviews continue to influence recall in later interviews.

2.5 The third interview would help equate those children who were interviewed by a parent with those children who were initially interviewed by an experimenter. Research assessing the influence of multiple interviews shows that earlier interviews aid future recall as long as misleading information is absent (Goodman et al., 1991). It was believed that the additional interview, in the absence of misinformation, would help children rehearse their recall of the event.

2.6 There would be no differences across video events. The two videos are similar in content so no difference was expected in children's ability to recall them.

2.7 There would be no gender differences. Past research has not shown any gender differences, and consequently, none were expected in the present study.

2.8 Younger children would recall less information and make more errors than older children. Age differences in children's ability to recall events have been consistently shown in past literature (Gobbo, Mega, & Pipe, 2002; Roebers & Schneider, 2002).

Method

Participants

Seventy-nine parent-child dyads were recruited from local elementary schools in St. John's, NL, Canada. There were 39 boys and 40 girls aged seven to ten years old. The majority of parents included in the dyads were mothers ($n = 73$). An additional four children participated, but their data were removed from the study due to difficulties with recording equipment ($n = 2$) or because children failed to complete all portions of the study (e.g., children left to go on vacation before the study could be completed, $n = 2$). There was no reason to suspect that there were any differences between children who did and did not complete the study. The majority of children were Caucasian.

Stimuli

Two videos were used to control for any idiosyncratic effect of stimuli. Both videos were approximately ninety seconds in length and featured both a male and a female confederate. There was no audio in either video. The first video took place inside a small toy store. The camera panned the room and the viewer was able to see a large variety of stuffed animals on shelves, a counter with a cash register in the center, and a table with an assortment of candy. A male storekeeper was stocking one of the shelves. A female entered the store. The two people looked at each other and then the female proceeded to look at items in the store while he went back to stocking the shelves, with his back turned to her. She picked up two stuffed animals, looked at them, and then put them back on the appropriate shelves. She moved over to the table with the candy, looked at the store keeper, and then placed five bags of candy into her purse. She closed

her purse and then walked out of the store. The store keeper walked over to the table, looked down, and then followed her out of the store. Throughout the video there were 10 action details, 14 perpetrator details, 10 setting details, and 8 victim details (See Appendix B).

The second video took place in a large waiting area at a school. The camera panned the area and the viewer was able to see benches, signs on the wall, a classroom, and some vending machines. A female was sitting on a bench with a bag next to her, reading a book, when a male with a backpack walked out of a classroom that could be seen in the background. The two people smiled at each other and then the male sat down next to the female, took out his own book, and started to read. The female put down her book, took her wallet out of her bag, got some change and went to a nearby vending machine, leaving her bag with the wallet, on the bench. The male looked, saw that her back was turned, took out her wallet, and took the bills. He placed the wallet on top of her bag, put his book back into his backpack and then left. The female came back, noticed her open wallet, and ran after him. Throughout the video there were 18 action details, 13 perpetrator details, 13 setting details, and 14 victim details (See Appendix B).

Procedure

Letters of interest were sent home to parents of children in the appropriate classes at local elementary schools (See Appendix C). Parents who expressed interest in the project were contacted. Participation occurred at a location that was convenient for the parent (e.g., in their home). Two female researchers were present. The children were assigned randomly to a video (candy theft or money theft) condition. The parent was

asked to go to a separate location from the child with one of the researchers and was given some paperwork to complete so he/she did not see the video. The child was asked to watch a video by the second researcher, who viewed it with the child, to ensure it worked properly (children were simply asked to watch a video and were not told about the video content). After the video was over, the child was asked if he/she knew what a witness was. Regardless of the child's response, all children were told that a witness was a person who had seen something happen and were told that they were now witnesses to what had happened in the video. Children were told that if they had witnessed something like they had seen in the video, they might be asked questions about what had happened. It was explained to each child that the video he/she had seen was, in fact, pretend but that the researchers wanted to know what the child could remember about it. The researcher who watched the video explained that the child's parent had not seen the video and that it was up to the child to tell his/her parent what had happened. The parent was brought back into the room. Parents were not given a pre-established list of questions, but were instead told to question the child about the video as they thought they would if the child had actually seen something similar. Not giving parents a set of questions to ask was intended to mimic what would actually happen more closely than giving parents a set of questions would have. The experimenters left the room while the parents questioned their children, in an attempt to make both parents and children as comfortable as possible. The parent-child discussions were audio recorded.

All children were shown the video using the same laptop computer to prevent differences in viewing conditions. The computer had a 15 inch monitor. Children

generally sat at a desk or table and the computer was placed directly in front of them. The same researcher showed all children the video and worked with a script to ensure each child received the same post video instructions. All interviews were transcribed. Scoring was completed from the transcripts.

Ethics approval was obtained and the research was conducted in accordance with the ethical requirements of the university's interdisciplinary committee for ethics in human research. Prior to recruiting parents or children, the appropriate school board (See Appendix D) and principal permission (See Appendix E) was obtained.

Coding Procedure

Parent questioning procedures were assessed. Parent questions were categorized as: open-ended questions, direct questions, yes/no questions, or statements (See Appendix F). This question breakdown has been used elsewhere (e.g., Fivush & Fromhoff, 1988; Fivush, Peterson, & Schwarzmueller, 2002; Peterson et al., 1999). Questions for which there were many possible answers were coded as open ended questions. These questions were generally asked to gain information (e.g., what happened?). Questions for which there were a limited number of answers such as either/or questions were coded as direct questions (e.g., was the person who took the money a boy or a girl?). Questions that required a yes/no response were coded as yes/no questions. Comments made by parents that did not require any response were coded as statements. Parent questions were then further categorized as being relevant or safety-related questions. Questions that required the children to talk about the video were

categorized as relevant. Question that explored the children's feelings about what had been seen or the rightness/wrongness of the act were categorized as safety-related.

The number and accuracy of details children provided to each question type (open-ended, direct, yes/no) across the four categories (setting, perpetrator, victim, actions) was tabulated for the parent interviews. Finally, details, if any, that parents suggested to their child throughout the interview (e.g., the parent assumed the shopkeeper was female) were recorded (See Appendix G). Suggested information was categorized as either accurate (actually occurred as suggested in the video) or inaccurate (did not occur in the video or occurred differently in the video) information. Child responses were then checked to determine whether children included the suggested information in their responses.

To assess the inter-rater reliability of the coding scheme, 25% of the transcripts were coded by a second individual who was trained in the coding procedure and the percentage agreement was calculated. The inter-rater agreement for the various types of item coding ranged from 92% to 100% with an average reliability of 96%. Discrepancies were discussed and the agreed upon responses were used.

Results

Overview

In assessing the initial interview conducted by parents, the major points of interest concerned the types of questions parents posed to their children, the content of parents' questions, the amount of information children provided, the accuracy of information children provided, and child incorporation of parent suggested information. After a brief description of preliminary analyses, each of the more specific analyses is described.

Preliminary Analyses

A series of analyses of variance and correlations indicated no differences in questions posed as a function of child gender, parent gender, video, or child age. Accordingly, the data were collapsed across these variables for subsequent analyses.

Characteristics of the Parent Interview

Content of parent questions. The questions parents asked could be divided into two categories: questions relevant to the video and questions assessing children's perceived safety. The mean number of relevant and safety questions broken down by question type (open-ended, direct, yes/no, statement) can be found in Table 1. Parents were more likely to ask children questions related to the content of the video ($M = 17.09$, $SD = 13.08$) than to children's perceived safety ($M = 3.77$, $SD = 5.12$), $t(78) = 7.59$, $p < .001$, $r^2 = .12$. The questions regarding children's perception of safety and children's subsequent responses were of little interest for the purposes of the current study. Thus no additional analyses were conducted using these questions and responses.

The frequency of parent questions that were relevant to the video was compared to determine whether parents used some question types more often than others. A repeated measures analysis of variance assessing question type (open-ended, direct, yes/no, statement) was completed. Mauchly's Test indicated that the assumption of sphericity had been violated ($\chi^2 = 128.74$, $p < .001$), therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity (epsilon = 0.54). Parents were more likely to use some question types than others, $F(1.63, 127.15) = 58.73$, $p < .001$, $\eta_p^2 = .43$. Follow-up paired sample *t*-tests were used to determine differences in the type of questions parents asked. Parents relied on yes/no questions more than on open-ended questions, $t(78) = 7.08$, $p < .001$, $r^2 = .19$, direct questions, $t(78) = 4.75$, $p < .001$, $r^2 = .50$, or statements, $t(78) = 9.21$, $p < .001$, $r^2 = .02$. Parents relied more on direct questions than on open-ended questions, $t(78) = 4.98$, $p < .001$, $r^2 = .12$ or statements, $t(78) = 9.20$, $p < .001$, $r^2 = .08$. Finally, parents relied more on open-ended questions than on statements, $t(78) = 9.23$, $p < .001$, $r^2 = .16$. To summarize, parents were more likely to use yes/no questions, followed by direct questions, open-ended questions, and then statements. The means for each question type are found in Table 1.

Information Provided by Children

Next, the content of children's responses to parent questions regarding the video was assessed to determine whether and how frequently parents asked about video content that would be of forensic interest. Children's responses were categorized as being descriptive of either the perpetrator, the actions, the setting, or of the victim. The amount of information children provided in each of these categories can be seen in Table 2. A

repeated measures analysis of variance assessing content (perpetrator, actions, setting, victim) was conducted to determine whether there were differences in the type of information children provided. Mauchly's Test indicated that the assumption of sphericity had been violated ($\chi^2 = 26.53$, $p < .001$), therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity (epsilon = 0.84). Children were more likely to provide information about some forensically relevant items than others, $F(2.52, 196.38) = 39.89$, $p < .001$, $\eta_p^2 = .34$. Follow-up paired sample *t*-tests were used to determine the type(s) of information that children provided. Children were equally likely to discuss the actions and the perpetrator. Actions were talked about more often than the setting, $t(78) = 6.78$, $p < .001$, $r^2 = .24$ or the victim, $t(78) = 9.71$, $p < .001$, $r^2 = .38$. Likewise, the perpetrator was talked about more often than the setting, $t(78) = 6.36$, $p < .001$, $r^2 = .24$ or the victim, $t(78) = 7.43$, $p < .001$, $r^2 = .09$. Finally, children were more likely to talk about the setting than about the victim, $t(78) = 2.72$, $p = .008$, $r^2 = .12$. To summarize, children were equally likely to discuss the actions and the perpetrator, followed by the setting, and then the victim.

Another question of interest was how parents acquired information from children. The amount of information children provided in response to each question type can be seen in Table 3. A repeated measures analysis of variance assessing the details children provided to each question type (open-ended, direct question, yes/no) indicated that children provided more information to some question types than to others, $F(1.41, 110.01) = 23.90$, $p < .001$, $\eta_p^2 = .24$. Again, Mauchly's Test indicated that the assumption of sphericity had been violated ($\chi^2 = 41.69$, $p < .001$), therefore degrees of freedom were

corrected using Greenhouse-Geisser estimates of sphericity (epsilon = 0.71). Follow-up paired sample *t*-tests revealed that children provided less information in response to yes/no questions than to either open-ended questions, $t(78) = 5.99$, $p < .001$, $r^2 = .01$ or direct questions, $t(78) = 8.83$, $p < .001$, $r^2 = .24$. There was no difference in the amount of information provided to direct questions or to open-ended questions.

Accuracy of Information Children Provided

Approximately 11% of the details children provided were incorrect. A summary of the specific errors children made can be found in Table 4. A repeated measures analysis of variance assessing question type (open-ended, direct question, yes/no) was conducted to determine whether these errors were more likely to be made in response to some types of questions than in response to others. The analysis revealed that there was a significant difference in the errors children made across question type, $F(2, 84) = 5.91$, $p = .004$, $\eta_p^2 = .12$. Follow-up paired sample *t*-tests were used to determine where children's errors were made. Children made proportionately more errors in response to direct prompts ($M = 0.22$, $SD = 0.25$) than in response to open-ended questions ($M = 0.06$, $SD = 0.14$), $t(64) = 4.43$, $p < .001$, $r^2 = .001$ or to yes/no questions ($M = 0.08$, $SD = 0.18$), $t(46) = 2.89$, $p = .006$, $r^2 = .04$. There was no difference in the number of errors made in response to open-ended and yes/no questions.

Children's Incorporation of Parent Suggested Information

A final question of interest regarding parent interviews of children was whether or not children included information suggested by their parents in their accounts of the video. Interestingly, only 22 parents (27.9%) included any suggestions in the questions

they asked their children. Of the parents who included suggestive information, 13 included one suggestion, 2 included two suggestions, 4 included three suggestions, 1 included four suggestions, and 2 included five suggestions. Of the 43 suggested pieces of information, 28 pieces were incorrect. Children generally accepted parents' correct suggestions, that is, they incorporated 100% of correct pieces of information from leading questions. Of the 28 incorrect pieces of information, 11 pieces of information were accepted in the parent interview, that is, these children incorporated 39% of incorrect pieces of information from misleading questions. Incorrect information suggested by parents included an incorrect item stolen, an assumption that the perpetrator was male and the victim was female, incorrect clothing worn by the perpetrator, an incorrect setting for the offence, and incorrect actions on the part of the perpetrator. Only two parents asked an unanswerable question, and in both cases children correctly responded with 'I don't know'.

Discussion

In this portion of the current study, the content of parent-child interviews regarding a staged theft was assessed. As predicted, results demonstrated that parents relied on more direct forms of questioning (yes/no and direct questions) to elicit information regarding both the theft and children's perceptions of safety, but surprisingly, very few parents asked misleading questions. In line with the hypotheses, children provided proportionately more information in response to open-ended questions and made proportionately more errors in response to direct questions. When asked misleading questions, very few children incorporated parent-suggested misinformation.

Parents varied in how they talked to their children, with primary emphasis on questioning the content of the video. It was expected that parents would focus discussion around the actions and the perpetrator in the video (Hypothesis 1.1) and results showed that parents were equally likely to ask children about these. Following this, parents were more likely to ask about the setting and then the victim. This suggests that despite a lack of training, parents recognized the importance of acquiring information about what had happened and about the person who had committed the criminal act. In past research, parents were actually provided with at the very least a structured interview (e.g., Ricci et al., 1996), so the manner in which parents would question children has not been previously assessed.

Given the nature of the study, it was somewhat surprising to discover that parents asked children about their perceived safety. However, this coincides with past research suggesting that in an event where something negative happens, parents will talk to their

children about the negative emotions that children are likely experiencing (Fivush et al., 2003; Goodman et al., 2006; Sales & Fivush, 2005; Turnbull et al., 2009). This type of discussion is especially likely to occur in the event that children experience fear (Fivush et al., 2003), the negative emotion that would most likely be experienced in this circumstance. Past research suggests that such discussion may in fact help children comprehend and better recall negative events (Goodman et al., 2004; Quas et al., 1999). The role of such discussions was not directly assessed in the present study; however as will later be discussed, it may have had an impact on children's performance in later interviews.

Assessment of question type revealed parents were more likely to rely on yes/no questions, followed by direct questions, open-ended questions, and statements, a finding consistent with Hypothesis 1.2. Past research has shown that children provide more information in response to open-ended questions than in response to direct questions (Sternberg et al., 2002). However, children's reports of an event are not complete if questioners rely solely on open-ended questions (Hutcheson et al., 1995; Sternberg et al., 2002). Ricci et al. (1996) reported that in their assessment of parent-child interviews, parents often did not have the patience to wait for children to respond to questions and instead moved on to ask additional questions or to repeat previously asked questions. Likewise, parents in the present study demonstrated a lack of skill in asking the proper questions and sometimes appeared to have little patience waiting for their children to respond to open-ended questions. Instead parents were more likely to rely on yes/no questions and direct questions, questions to which children appear to respond much more

quickly. It is interesting to see that despite parental reliance on direct and yes/no questions, an equivalent amount of information was provided in response to direct questions and open-ended questions. Little information was provided in response to yes/no questions, even though these were the questions most often asked by parents. As with previous research assessing interview style (e.g., Lamb et al., 2008; Orbach et al., 2000), these findings suggest that had parents asked more open-ended questions, children may have provided more complete reports of the event.

Research suggests that direct questions and yes/no questions be used sparingly as children are more prone to errors when responding to these types of questions (Brady et al., 1999; Peterson & Biggs, 1997; Peterson et al., 1999). Partially supporting this suggestion (Hypothesis 1.3), children in the present study made proportionately more errors in response to direct questions than in response to either open-ended questions or yes/no questions. There was no difference in the proportion of errors made in response to open-ended questions and yes/no questions.

Even though it is not really surprising, the finding that parents rely so heavily on direct-questions and yes/no questions is troubling. Tremendous effort has been directed toward training police officers and other legal personnel to avoid using these questions (e.g., Fisher & McCauley, 1995; Orbach et al., 2000). As shown by Thompson et al. (1997), even if legal personnel ask the right questions, earlier interviews can interfere with children's ability to correctly recall an event. It seems important then that parents be made aware of the importance of avoiding such questioning tactics in the unfortunate event that their children experience or witness a criminal event. This could be

accomplished through parent education programs and pamphlets that teach parents how to talk to their children about personal safety issues.

A final question of interest in Part I was whether or not parents suggested information to their children and children incorporated this information into their recall. Very few parents suggested information to their children. When parent-suggested information was correct (leading question), children generally accepted that information. In contrast, when parent-suggested information was incorrect (misleading question), only 11 of 28 pieces of misinformation (39.3%) were accepted, a finding that partially supports Hypothesis 1.4. It was thought that children would not accept parents' suggestions as they were made aware that parents had no idea what had occurred in the video. However, some children could not resist the misinformation provided by their parents. Parent-suggested misinformation was equally likely to include central (e.g., gender, actions) and peripheral (e.g., clothing worn) information. There were too few pieces of misinformation to do any statistical comparison of children's acceptance of central versus peripheral misinformation or to assess whether age or gender differences exist in the acceptance of misinformation.

The finding that so few parents suggested information to their children is encouraging given that past research has not actually assessed how often parents suggest information or how much information parents suggest under these circumstances. Likewise, it is interesting to see that so few children accepted parent-suggested misinformation. There were too few suggestions to clearly determine the circumstances

under which children accept or refute parent suggested information when recounting an event that their parents had not seen.

In this study, children were warned that their parents had not seen the video. Past studies have shown a similar lack of acceptance of interviewer suggested details when it has been emphasized that the person questioning the children has no awareness of the event (Goodman & Bottoms, 1993; Jackson & Crockenberg, 1998; Mulder & Vrij, 1996; Reed, 1996). Furthermore, as shown by Jackson and Crockenberg (1998), children seem more comfortable rejecting parent-suggested than stranger-suggested misinformation. Another fact that likely added to the lack of misinformation provided by the parents was the age of the children in the study. By age seven, most children have likely reached a stage where parent scaffolding is not necessary. Thus parents probably did not suggest things children could talk about. Furthermore, by age seven, children are far less suggestible than their younger age counterparts (Roebers & Schneider, 2002). Future research should include children of a wider variety of ages to determine whether these differences hold across all children or if they are unique to older children.

In contrast to past studies, children in this study were shown one of two realistic thefts, events that are more comparable to the real life acts children who witness or experience a crime could be asked to describe. In addition, this study contained a more realistic assessment of parent questioning. Although they were informed in the parent letter that they would question their children, most parents seemed unaware that they would actually generate their own questions. This lack of parental awareness likely added a dimension of realism to the parent interviews. Parents were forced to question

their children about an event the children potentially viewed as negative with little background information to use in generating questions. Parents quickly composed questions regarding the perpetrator and the actions that were mostly direct questions. One could expect something similar from parents who are actually put in this situation.

The present results may not generalize to other crimes such as abuse or maltreatment. If one looks at the taint hearings that exist, most if not all pertain to abuse or maltreatment. Theft is very minor in comparison, and even if the experience were real, parents likely would not have the same reaction to their children potentially witnessing a theft as they would to their children potentially being abused or maltreated. Although it would be unethical to show children more serious crimes, these findings could be replicated with other minor crime to determine whether there are differences depending on the type of crime children witness and are asked to discuss.

In the present study, some factors that have been previously shown to influence parent-child discussions of events were not assessed. In particular there was no attempt to assess parent attachment. Past research has shown that parents who have avoidant or anxious/ambivalent attachment styles react differently when discussing stressful events with their children (Alexander et al., 2002; Clarke-Stewart, Malloy, & Allhusen, 2004; Goodman et al., 1997). Perhaps as a consequence of this, their children are more likely to make mistakes and are more suggestible when asked misleading questions (Alexander et al., 2002; Clarke-Stewart et al., 2004; Goodman et al., 1997). Likewise, there was no attempt to assess parenting style. Past research has shown that parents who show more traditional parenting styles and teach their children to always obey authority figures, are

more likely to have children who accept misinformation (Burgwyn-Bailes, Baker-Ward, Gordon, & Ornstein, 2001; Imhoff & Baker-Ward, 1999). Future research should include parent attachment style and parenting style as potential covariates of how parents question their children. It is important to assess individual difference factors that may help to explain how parents talk to children about such events.

In assessing the potential influence of misinformation, it would be interesting to see what would happen if parents were told their children had witnessed a theft when in actuality they had not. It may be that parents would become more misleading in an attempt to get children to discuss what they believe the children actually witnessed. It is also important to assess how parents would respond to younger children. It would be especially interesting to see whether parents would provide additional misinformation when trying to help children elaborate on an event. In scaffolding young children's provision of narratives, parents provide more information than they do with older children (Haden et al., 2001; McCabe & Peterson, 1991). It would be interesting to see what information parents would provide and how young children would respond when provided with the information.

As just discussed, in the present study children simply watched a video of a staged theft. In comparison to actually witnessing a theft, this event was relatively unemotional. Children would likely experience far greater emotional upheaval if they actually witnessed such an event, and parents would likely be far more panicked in their questions. It is interesting to see then that parents relied so heavily on direct-prompts and yes/no questions in this study. While it would be unfair to generalize these findings to

what would actually happen, it seems fair to assume that parents would rely on even more yes/no and direct questions. Parents should be taught the importance of avoiding such questions when discussing events of this nature with their children. Some parents would forget what they should do if something like this actually happened, but if parents were educated about how to talk to children in such a circumstance and just a few could be reached, this would be better than nothing. Children were relatively accurate in responding to yes/no questions and resisted misleading information. If future research continues to show such behaviour, we could conclude that parents do not have as negative an influence on children's memory as is sometimes presumed.

Part II

A fundamental issue is not that parents differ in how they talk to their children, but how this influences police investigations. It remains to be seen how parents' questioning techniques influence children's performance in later interviews. This is addressed next. The information gathered from parents and children in Part I of the study is compared to information gathered from a second group of children who were interviewed by trained interviewers. Please note that for the ease of reader understanding, some information from the previous method section is repeated.

Method

Participants

One hundred fifty-eight children (7-10 years; $M = 8.46$ years, $SD = 0.97$ years) were recruited from local elementary schools. There were 77 boys and 81 girls. An additional nine children (four of whom were previously discussed) participated, but were removed from the study because of difficulties with recording equipment ($n = 7$) or because children failed to complete all portions of the study (e.g., children left to go on vacation before the study could be completed, $n = 2$). There was no reason to suspect that there were any differences between children who did and did not complete the study. The majority of children (96%) were Caucasian.

Stimuli

The stimuli used in Part I of the current study, were also used in Part II.

Procedure

Letters of interest were sent home to parents of children in the appropriate classes at local elementary schools and interested parents indicated whether they would like to participate with their child, or have their child participate in the study alone. Seventy-nine children participated alone, at their school. The 79 children who participated with a parent were already discussed in Part I of the study.

All children were assigned randomly to a video (candy theft or money theft) condition and an interview (two interviews or three interviews) condition. Regardless of the video watched or parent participation, children were interviewed immediately after watching the video and again one week later. Half of the children were also interviewed

a third time. This interview took place immediately following the first interview. Given the possible combinations, individual children could be assigned to one of eight possible conditions (See Figure 1).

Children who participated without a parent were tested at their school. On the day of testing, children were taken to a room and worked one-on-one with each of either two or three female researchers. One of the researchers asked each child to watch the assigned video, watched it with the child, and then explained what a witness was. In this condition, it was explained to each child that the other researchers had not seen the video and it was up to the child to tell one of them what had happened. The first researcher moved aside and a second researcher asked the child to talk about the video using a pre-established list of questions (See Appendix A). Children who were going to be interviewed twice were then thanked for their participation and were told that the researchers would return the following week to talk to them again. Children who were going to be interviewed three times were introduced to the third female researcher. They were told that she had not seen the video either and would like to know what had happened. The researcher asked the children the same pre-established list of questions. These children were then thanked and told that the researchers would return the following week to talk to them again.

One week after the children had viewed the video, the researcher who had shown the video returned along with another researcher. Children were introduced to the researcher they had not met and were asked if they could tell the researcher what they remembered about the video they had seen the week before. Again, the researcher who

had watched the video with the children moved aside and allowed the person who had not seen the video to ask the questions. Children were once again asked the same pre-established list of questions. The children were then thanked for their help, debriefed, asked if they had any questions, and were given a small gift of appreciation.

Children who participated with a parent came to an office at the university or were visited at a location that was convenient to the parent. The only difference in this condition was that the child had to tell his/her parent about the video first instead of a researcher. Parents left the room while their child watched the video to ensure children were aware the parents had not seen the video. Parents were not given a pre-established list of questions, but were instead told to question the child about the video as they thought they would if the child had actually seen something similar. By not giving parents the questions to ask the hope was that the scenario would mimic what would actually happen. The experimenters left the room while the parent questioned the child in an attempt to make both the parent and the child as comfortable as possible. Follow-up interviews were conducted identically regardless of whether the initial interview was conducted by a parent or by a trained interviewer.

All children were shown the video using the same laptop computer to prevent differences in viewing conditions. The computer had a 15 inch monitor. Children generally sat at a desk or table and the computer was placed directly in front of them. The same researcher showed all children the video and worked with a script to ensure each child received the same post video instructions. Each interview conducted with an individual child was conducted with a different female researcher so that each child

potentially worked with four female researchers. The female researchers who conducted the interviews were never shown the videos and were blind to the children's video and interview condition. It was impossible to keep the interviewers from knowing whether a parent or another interviewer had conducted the children's first interviews as the interviewers were aware of the interview location. However, the interviewers were not told the purpose of the parent versus stranger interviewer condition. All interviews were audiotaped and transcribed. Scoring was completed from the transcripts.

Ethics approval was obtained and the research was conducted in accordance with the ethical requirements of the university's interdisciplinary committee for ethics in human research. Prior to recruiting parents or children, the appropriate school board (See Appendix D) and principal permission (See Appendix E) was obtained.

Coding Procedure

Five independent observers were asked to watch the videos and record everything they could see. The observers were asked to group information according to setting, actions, perpetrator description, and victim description. They were asked to watch each video repeatedly until they believed they had recorded all possible information from the videos. The principal researcher used this information to work with another individual (the person who would be asked to code some of the data for inter-rater reliability purposes) to compile a list of what they thought individuals watching each video could be expected to remember about each of the four categories (setting, actions, perpetrator description, and victim description). The lists were further subdivided into information that would be classified as central and peripheral. Central information was defined as

information necessary to recognize the setting or person being described or necessary to understand what had happened. Peripheral information included any additional details that could be provided. A complete list of the details that were coded for each video, as well as an indication of whether those details were classified as central or peripheral, can be found in Appendix B. An attempt was made to make the level of detail consistent across perpetrator/victim and across videos. The content of the videos sometimes made this impossible (e.g., in the candy store video, the shirt and jacket worn by the perpetrator could both be seen, but in the purse theft video, only the perpetrator's jacket could be seen).

To code the data, each transcript was read and any information children provided about a particular detail was recorded in the box next to the particular descriptor (e.g., if the child mentioned the female perpetrator's black shirt –black shirt was written next to the box for black shirt). This was repeated for each interview the child completed. After recording the information the children provided, the total number of descriptors was tallied and completeness scores were calculated. Children could have provided multiple pieces of information about a given descriptor (e.g., in talking about a person's jeans they might have said they were tight and blue), but each descriptor (i.e., in this case jeans) was only counted once. To obtain the completeness score for each description category, the total number of details children provided was divided by the total number of details children could have provided. For example, children who viewed the purse theft video could potentially provide 13 pieces of information about the setting. If a child provided 4 pieces of information they were given a completeness score of .31. The completeness

score was used in the statistical analyses rather than counts of the information because children could provide more information in some categories than they could provide in others and more information about one video than about the other. A total completeness score was calculated by summing the total number of details children provided across categories and dividing by the total number of details they could have provided. Central and peripheral completeness scores were calculated by summing the total number of central or peripheral details children provided (overall and within each descriptive category of information: setting, perpetrator, actions, and victim/witness) and dividing by the corresponding total number of central or peripheral details children could have provided.

After assessing the amount of information children provided, accuracy of the information was assessed overall, for central versus peripheral details, and within each descriptive category. Accuracy scores were calculated by dividing the total number of accurate details children provided by the total number of details they provided. For example, if children provided 10 details but only 6 were correct, they would receive an accuracy score of .6. In determining accuracy, if any detail children provided about a given descriptor was incorrect, then that descriptor was classified as incorrect. For example, if the children said the female perpetrator was wearing a blue shirt when in reality she was wearing a black shirt, the shirt descriptor was recorded as being incorrect even though the children recognized she was wearing a shirt.

To assess the inter-rater reliability for the coding of this portion of the study, 20% of the transcripts were coded by a second person who was trained in the coding procedure

and the percentage agreement was calculated. Inter-rater agreement for the various item types coded ranged from 85% to 100% with an average reliability of 94%. Discrepancies were discussed and the agreed upon responses were used.

Results

Overview

In this portion of the current study, the major question of interest was whether parent-child discussions influenced children's ability to recall the crime they had witnessed when they were later interviewed by a trained interviewer. More specifically, the influence of early parent-child conversations on the amount and the accuracy of information children could recall in later interviews was assessed. In order to determine whether the influence of earlier discussions was a result of parents' questioning or just the discussion itself, half of the children were initially interviewed by a trained interviewer. To give a complete picture of children's responses to parent versus trained interviewers and the subsequent effect these conversations might have on later interviews, comparisons between children's responses to a parent interviewer versus a trained interviewer immediately following the video are first presented. Following this, the effects of being interviewed by a parent versus a trained interviewer on responses to questions in a second immediate interview and in a one-week follow-up interview are presented. The evaluation of each interview includes a comparison of the overall amount and accuracy of information provided, as well as separate comparisons of the amount and accuracy of central and peripheral information provided. Finally, an assessment of the consistency of information children provided is made to determine whether children showed consistent provision of information or consistent accuracy of information across interviews.

In the assessment of the one-week interview and in the assessment of consistency of information provided across interviews, the influence of the third interview experienced by half of the children is assessed. Potential effects of video, child age, and child gender are also examined for each interview.

Note that analyses focused on children's performance (i.e., children's provision of central versus peripheral information and children's ability to provide information about the setting, the perpetrator, the actions, and the victim) have been completed. These analyses show findings in the expected direction with children recalling more central than peripheral information, and with children demonstrating a difficulty in providing information about people. However, given that the purpose of this study was to explore the influence of parent-child discussions on children's performance in later interviews, these results are not presented.

The Immediate Interview

Overall information provided. Comparisons were first made between the information that children provided to parents and the information they provided to a trained interviewer immediately after watching the video. To assess this, a series of analyses of variance (ANOVA) were completed. First an overall ANOVA was used to assess differences in the overall proportion of information children recalled. An initial analysis indicated no differences in recall as a function of child gender or child age. Accordingly, the data were collapsed across these variables for subsequent analyses. The analysis first described was a 2 (video: store or purse theft) x 2 (interviewer: parent or trained) ANOVA with the proportion of information provided as the dependent variable.

Next a series of analyses of variance were conducted to assess differences in the proportion of information children recalled about the setting, the perpetrator, the actions, and the victim. Those analyses were 2 (video: store or purse theft) x 2 (interviewer: parent or trained) ANOVAs with the proportion of information provided for each category of information (setting, perpetrator, actions, victim) as the dependent variables. The mean proportion of information children provided to parents and to trained interviewers across videos in the analyses of overall, central, and peripheral information is shown in Appendices H-J, and children's accuracy rates for this information are shown in Appendices K-M.

The assessment of overall recall showed that children provided more overall information to the trained interviewer than to their parents, $F(1, 153) = 45.25$, $p < .001$, $\eta_p^2 = .23$ (See Table 5). Likewise, children reported a greater proportion of information regarding the setting $F(1, 153) = 115.85$, $p < .001$, $\eta_p^2 = .43$, the perpetrator $F(1, 153) = 11.08$, $p = .001$, $\eta_p^2 = .07$, and the actions $F(1, 153) = 36.90$, $p < .001$, $\eta_p^2 = .19$ to the trained interviewer than they did to their parents (See Table 5). With regard to the proportion of information children provided about the setting, children provided more information about the theft that occurred in a store ($M = .38$, $SD = .14$) than they did about the purse theft ($M = .28$, $SD = .16$), $F(1, 153) = 26.42$, $p < .001$, $\eta_p^2 = .15$. There was also a significant interviewer x video interaction, $F(1, 153) = 4.60$, $p = .034$, $\eta_p^2 = .03$. Follow- up analyses revealed that children provided a higher proportion of setting details to trained interviewers than to parents when describing both the candy store, $F(1, 76) = 36.02$, $p < .001$, $\eta_p^2 = .32$, and the purse theft videos, $F(1, 78) = 87.77$, $p < .001$, η_p^2

= .53. However, the difference was more pronounced when children were describing the purse theft video. When providing information to their parents, children provided almost twice as many details for the candy store video (M = .30, SD = .16) as for the purse theft video (M = .16, SD = .10). In contrast, when providing information to a trained interviewer, children provided a similar number of details for both the candy store (M = .45, SD = .11) and the purse theft videos (M = .40, SD = .12; See Figure 2).

Central information provided. Additional analyses were conducted to assess the recall of central and peripheral information separately. As with the assessment of children's overall recall, ANOVAs were used to assess differences in the total proportion of both central and peripheral information that children recalled. Separate ANOVAs were then conducted to assess differences in the proportion of central and peripheral information children recalled about the setting, the perpetrator, the actions, and the victim. Initial analyses indicated no differences in recall as a function of child gender or child age. Accordingly, the data were collapsed across these variables for subsequent analyses. The analyses described were 2 (video: store or purse theft) x 2 (interviewer: parent or trained) ANOVAs with the total proportion of central and peripheral information provided as well as the proportion of central and peripheral information recalled about the setting, actions, perpetrator, and victim as the dependent variables. A summary of the central and peripheral information provided to both parents and trained interviewers can be found in Table 5.

The analysis of children's total recall for central information revealed effects of video, $F(1, 153) = 4.44$, $p = .037$, $\eta_p^2 = .03$ and of interviewer, $F(1, 153) = 19.92$, $p <$

.001, $\eta_p^2 = .12$. Children recalled a higher proportion of central information about the candy store video ($M = .42$, $SD = .12$) than about the purse theft video ($M = .39$, $SD = .11$). Children provided more central information to a trained interviewer than to their parents.

When children's provision of information was considered according to the nature of the information, children provided more central information about the setting, $F(1, 153) = 62.22$, $p < .001$, $\eta_p^2 = .29$ and the actions, $F(1, 153) = 31.32$, $p < .001$, $\eta_p^2 = .17$ to a trained interviewer than to their parents (See Table 5). There was also an effect of video on the central setting $F(1, 153) = 21.54$, $p < .001$, $\eta_p^2 = .12$, and the central perpetrator details, $F(1, 153) = 5.97$, $p = .016$, $\eta_p^2 = .04$. Children recalled a higher proportion of central setting details about the candy store video ($M = .73$, $SD = .23$) than about the purse theft video ($M = .58$, $SD = .26$). Likewise, children recalled a higher proportion of central perpetrator details for the thief from the store ($M = .40$, $SD = .18$) than for the thief in the purse theft video ($M = .34$, $SD = .16$). There was a significant video x interviewer interaction, $F(1, 153) = 6.13$, $p = .014$, $\eta_p^2 = .04$. Follow-up analyses revealed that children provided a higher proportion of central setting details to trained interviewers than to parents when describing both the candy store, $F(1, 76) = 13.77$, $p < .001$, $\eta_p^2 = .15$, and the purse theft videos, $F(1, 78) = 59.15$, $p < .001$, $\eta_p^2 = .43$. However, the difference was more pronounced when children were describing the purse theft video. When providing information to their parents, children provided proportionately more details for the candy store video ($M = .64$, $SD = .26$) than for the purse theft video ($M = .41$, $SD = .22$). In contrast, when providing information to a

trained interviewer, children provided a similar number of details for both the candy store ($M = .82$, $SD = .16$) and the purse theft videos ($M = .75$, $SD = .17$; See Figure 3). There was also a significant video x interviewer interaction for children's recall of central actions, $F(1, 153) = 5.21$, $p = .024$, $\eta_p^2 = .03$. Follow-up analyses show that children recalled a higher proportion of central action details about both the purse theft, $F(1, 77) = 6.31$, $p = .013$, $\eta_p^2 = .08$ and the candy store videos, $F(1, 76) = 27.40$, $p < .001$, $\eta_p^2 = .27$ when interviewed by a trained interviewer, but the difference was more pronounced in recall of the candy store video. When providing information to their parents, children provided more details about the purse theft video ($M = .49$, $SD = .23$) than about the candy store video ($M = .44$, $SD = .28$). In contrast, when providing information to a trained interviewer, children provided more details about the candy store video ($M = .72$, $SD = .19$) than about the purse theft video ($M = .61$, $SD = .18$; See Figure 4).

Peripheral information provided. As in the analysis of total recall of central information, the analysis of children's total recall of peripheral information showed effects of video, $F(1, 153) = 6.25$, $p = .013$, $\eta_p^2 = .04$ and of interviewer, $F(1, 153) = 54.02$, $p < .001$, $\eta_p^2 = .26$. Children recalled a higher proportion of peripheral information about the purse theft video ($M = .32$, $SD = .18$) than about the candy store video ($M = .27$, $SD = .16$). Children provided a higher proportion of peripheral information to a trained interviewer than to their parents (See Table 5).

When the provision of peripheral information was assessed according to the category of information, children provided a higher proportion of peripheral information about the setting, $F(1, 153) = 58.66$, $p < .001$, $\eta_p^2 = .28$, the perpetrator, $F(1, 153) =$

41.60, $p < .001$, $\eta_p^2 = .21$, and the actions, $F(1, 153) = 21.64$, $p < .001$, $\eta_p^2 = .12$ to a trained interviewer than to their parents (See Table 5). There were also effects of the video children watched. Children provided a higher proportion of peripheral information about the perpetrator [($M = .47$, $SD = .31$, purse theft; $M = .36$, $SD = .20$, candy store), $F(1, 153) = 8.33$, $p = .004$, $\eta_p^2 = .05$], and the victim [($M = .36$, $SD = .23$, purse theft; $M = .07$, $SD = .22$, candy store), $F(1, 153) = 62.52$, $p < .001$, $\eta_p^2 = .29$], in the purse theft video than in the candy store video. They also provided a higher proportion of peripheral information about the setting ($M = .13$, $SD = .16$, candy store; $M = .10$, $SD = .13$, purse theft), $F(1, 153) = 4.19$, $p = .04$, $\eta_p^2 = .03$, in the candy store video than in the purse theft video.

Overall accuracy. The information provided by children across both video and interviewer was also assessed to determine whether there were differences in accuracy. Note that because children needed to provide information in order for it to be considered accurate or inaccurate, the Ns for each cell varied. In the case of age, this sometimes made a comparison across all age groups impossible. Under those circumstances, the seven- and eight-year-olds and the nine- and ten-year-olds were combined. Again, initial analyses indicated no differences in recall as a function of child gender or child age. Accordingly, the data were collapsed across these variables for subsequent analyses. The analyses described were 2 (video: store or purse theft) x 2 (interviewer: parent or trained) ANOVAs with the accuracy of information provided as the dependent variable. A summary of children's overall, central, and peripheral accuracy across interviewer conditions can be found in Table 6. Note that children were very accurate regardless of

condition. An overall analysis revealed there were no effects of interviewer (parent or trained) or video (toy store or purse theft) on the accuracy of information provided.

Accuracy of central and peripheral information. When the information was divided into central and peripheral information, effects on accuracy emerged. When children's overall provision of central information was assessed, there were effects of both video, $F(1, 153) = 10.65$, $p = .001$, $\eta_p^2 = .07$, and of interviewer, $F(1, 153) = 7.07$, $p = .009$, $\eta_p^2 = .04$. Children were more accurate in their provision of central details about the candy store video ($M = .90$, $SD = .10$) than of central details about the purse theft video ($M = .84$, $SD = .11$). Children were more accurate when providing central details to a trained interviewer than to their parent (See Table 6). The assessment of children's overall provision of peripheral information revealed an effect of video, $F(1, 148) = 11.23$, $p = .001$, $\eta_p^2 = .07$. Children were more accurate in their provision of peripheral information about the purse theft video ($M = .91$, $SD = .10$) than about the candy store video ($M = .83$, $SD = .19$).

When the specific content of children's information was assessed, children were more accurate when describing central information about the perpetrator, $F(1, 153) = 7.53$, $p = .007$, $\eta_p^2 = .05$, and the victim, $F(1, 153) = 11.13$, $p = .001$, $\eta_p^2 = .08$ to a trained interviewer than they were when describing central information about these individuals to their parents (See Table 6). With regard to the video children watched, there were a number of differences: a) children were more accurate when describing central information about the perpetrator [$M = .87$, $SD = .21$, candy store; $M = .81$, $SD = .14$, purse theft, $F(1, 153) = 4.79$, $p = .03$, $\eta_p^2 = .03$], b) the setting [$M = .79$, $SD = .20$, candy

store; $M = .68$, $SD = .24$, purse theft, $F(1, 153) = 6.70$, $p = .009$, $\eta_p^2 = .05$], and c) the victim [$M = .99$, $SD = .06$, candy store; $M = .93$, $SD = .17$, purse theft, $F(1, 153) = 11.13$, $p = .001$, $\eta_p^2 = .08$] in the candy store video than in the purse theft video. There was a significant interviewer x video interaction for central details about the victim, $F(1, 153) = 15.95$, $p < .001$, $\eta_p^2 = .11$. This interaction cannot be interpreted due to ceiling effects for three of the four means (See Figure 5). When children's recall of peripheral information was considered, the only finding with respect to accuracy was a higher level of accuracy in describing peripheral information about the victim, $F(1, 153) = 24.96$, $p < .001$, $\eta_p^2 = .40$, in the purse theft video ($M = .94$, $SD = .15$) than in the candy store video ($M = .39$, $SD = .49$).

Summary. Comparisons of the information children provided to parents versus trained interviewers revealed that children provided more overall information to trained interviewers than to parents. This difference held when both central and peripheral recall were assessed. The differences in both overall and peripheral recall were evident in children's recall for the perpetrator, the setting, and the actions. The differences in recall for central information were shown in children's recall of the perpetrator and the setting, but not in their recall of the victim or the actions.

Children provided more overall information about the setting in the candy store video than in the purse theft video. A video x interviewer interaction indicated differences in the overall information provided about the setting across interviewers. Children who were interviewed by a parent provided almost twice as many setting details about the candy store as they provided about the purse theft video, while there was little

difference across videos for children who were interviewed by a trained interviewer. A similar pattern emerged in the recall of central information. Children recalled more central information about the candy store video; this difference was more pronounced for parents than for trained interviewers. In contrast, a difference in central actions across interviewers was more pronounced in children's recall of the candy store video. The difference was larger for trained interviewers than for parents. When peripheral information was considered, children recalled more peripheral information about the purse theft video. A breakdown according to information provided showed that children recalled more peripheral details about the perpetrator and the victim in the purse theft video and more peripheral details about the setting in the candy store video.

Children's overall accuracy was high ($M = .88$). There were no effects of interviewer or of video on overall accuracy. When information was divided into central versus peripheral information, children were more accurate in their recall of central information when interviewed by a trained interviewer than when interviewed by a parent. This was shown in their recall of the perpetrator and the victim. A video x interviewer interaction indicated that the victim differences emerged only in the purse theft video. Additional effects of video emerged for both central and peripheral recall. Children were more accurate in their recall of central information about the candy store video; this was true of their recall for the perpetrator, the setting, and the victim. Children were also more accurate in their peripheral recall of the candy store video, as shown in their recall of the victim.

The Second Immediate Interview

These analyses focus on the influence of an early parent interview on subsequent interviews with a child. Half of the children were interviewed by a trained interviewer immediately following their first interview, and all children were interviewed by a trained interviewer one week later. In this section, differences in the information provided in the second immediate interview are assessed. As in the preceding section, the recall of children who were initially interviewed by their parents will be compared to that of children who were initially interviewed by a trained interviewer.

Overall information provided. First an overall ANOVA was used to assess differences in the overall proportion of information children recalled. Then separate ANOVAs were conducted to assess differences in the proportion of information children recalled about the actions, the perpetrator, the setting, and the victim. Initial analyses indicated no differences in recall as a function of child gender. Accordingly, the data were collapsed across child gender for subsequent analyses. There were some differences as a function of child age and so it was included. The analyses described were 2 (video: store or purse theft) x 2 (initial interviewer: parent or trained) x 4 (age:7-, 8-, 9-, or 10 years-old) ANOVAs with the proportion of information provided as the dependent variable. The mean proportion of overall, central, and peripheral information children provided to parents and to trained interviewers across videos for all conditions can be found in Appendices N-P and children's mean accuracy rates for this information can be found in Appendices Q-S.

There were no effects of video or of initial interviewer on the overall proportion of information provided by children (See Table 7). When the information provided was broken into categories (actions, perpetrator, setting, victim), an effect of age was found for the proportion of information recalled about the perpetrator, $F(3, 59) = 4.32$, $p = .008$, $\eta_p^2 = .18$. The older the child, the more information he/she provided about the perpetrator [$M = .39$, $SD = .12$ for the seven-year-olds; $M = .42$, $SD = .14$ for the eight-year-olds; $M = .50$, $SD = .10$ for the nine-year-olds; $M = .54$, $SD = .11$ for the ten-year-olds respectively]. There was an effect of video on the proportion of information recalled about the setting, $F(1, 59) = 4.86$, $p = .03$, $\eta_p^2 = .08$. Children recalled a higher proportion of information about the setting of the candy store video ($M = .48$, $SD = .15$) than about the setting of the purse theft video ($M = .43$, $SD = .13$).

Central and peripheral information provided. Information provided by children in the second immediate interview was then divided into central and peripheral information. When the proportion of central information provided in the second immediate interview was considered, there was an effect of video, $F(1, 71) = 5.97$, $p = .017$, $\eta_p^2 = .08$. Children provided a higher proportion of central information in the candy store video ($M = ..48$, $SD = .09$) than in the purse theft video ($M = .44$, $SD = .07$). When the proportion of peripheral information provided was considered, there was also an effect of video, $F(1, 71) = 4.88$, $p = .03$, $\eta_p^2 = .06$. Children provided a higher proportion of peripheral information in the purse theft video ($M = .45$, $SD = .15$) than in the candy store video ($M = .37$, $SD = .15$). There was a video x initial interviewer interaction, $F(1, 71) = 4.25$, $p = .043$, $\eta_p^2 = .06$. When children were initially interviewed by a parent

there was no difference in the information they provided about the purse theft video (M = .42, SD = .13) versus the candy store video (M = .42, SD = .18). In contrast, children who were interviewed by a trained interviewer provided more information about the purse theft video (M = .47, SD = .16) than about the candy store video (M = .33, SD = .09; See Figure 6).

When the information provided was divided according to the category of information being described, there were effects of initial interviewer on the recall of central information about the perpetrator, $F(1, 73) = 4.11$, $p = .046$, $\eta_p^2 = .05$; the setting, $F(1, 73) = 35.58$, $p < .001$, $\eta_p^2 = .33$; and the victim, $F(1, 73) = 7.71$, $p = .007$, $\eta_p^2 = .10$ (See Table 7). Children who were initially interviewed by a parent recalled more central information about the perpetrator and the victim than children who were initially interviewed by a trained interviewer. In contrast, children who were initially interviewed by a trained interviewer recalled more central details about the setting than children who were initially interviewed by a parent. There were also effects of video on the recall of central information about the actions, $F(1, 73) = 6.61$, $p = .012$, $\eta_p^2 = .08$; and the setting, $F(1, 73) = 20.87$, $p < .001$, $\eta_p^2 = .22$. Children who watched the candy store video recalled more about the central actions (M = .74, SD = .22) and central setting (M = .84, SD = .17) than children who watched the purse theft video (M = .63, SD = .13 for central actions and M = .77, SD = .20 for central setting).

When the peripheral information provided was considered, there was an effect of video on the amount of peripheral information provided about the perpetrator, $F(1, 59) = 4.17$, $p = .046$, $\eta_p^2 = .13$; and the victim, $F(1, 59) = 8.86$, $p = .004$, $\eta_p^2 = .40$. Children

who watched the purse theft video recalled a higher proportion of peripheral information about the perpetrator ($M = .66$, $SD = .22$) and the victim ($M = .38$, $SD = .18$) than children who watched the candy store video ($M = .48$, $SD = .19$ for the perpetrator and $M = .14$, $SD = .31$ for the victim). There was an effect of age on the proportion of peripheral information about the setting recalled, $F(3, 59) = 3.49$, $p = .021$, $\eta_p^2 = .15$. Least significant difference tests showed that the 7-year-olds recalled significantly less peripheral information about the setting than the 10-year-olds (mean difference = .284, $p = .004$). Finally, there was a video x initial interviewer interaction on the proportion of peripheral actions recalled, $F(1, 59) = 6.20$, $p = .016$, $\eta_p^2 = .10$. Follow-up analyses showed that children in the candy store condition who were initially interviewed by a parent provided a higher proportion of peripheral information about the actions ($M = .59$, $SD = .31$) than children who were initially interviewed by a trained interviewer ($M = .34$, $SD = .24$), $F(1, 35) = 7.66$, $p = .009$, $\eta_p^2 = .18$. There was no difference in the amount of peripheral information about the actions provided by children in the purse theft condition as a function of whether they were initially interviewed by a parent ($M = .47$, $SD = .19$) or by a trained interviewer ($M = .52$, $SD = .23$; See Figure 7).

Overall accuracy. The accuracy of the information provided by children who participated in a second interview immediately following the video was also assessed. First, an overall ANOVA was used to assess differences in the overall proportion of information children accurately recalled. Then, separate ANOVAs were conducted to assess differences in the proportion of information children accurately recalled about the actions, the perpetrator, the setting, and the victim. Because children needed to provide

information in order for it to be considered accurate or inaccurate, the Ns for each cell varied. In the case of age, this sometimes made a comparison across all age groups impossible. Under those circumstances the seven- and eight-year-olds and the nine- and ten-year-olds were combined. Initial analyses indicated no differences in accuracy of recall as a function of child gender or age. Accordingly, the data were collapsed across this variable for subsequent analyses. The analyses described were 2 (video: store or purse theft) x 2 (interviewer: parent or trained) ANOVAs with the proportion of information accurately recalled as the dependent variable. A summary of children's overall, central, and peripheral accuracy across interviewer conditions can be found in Table 8.

Regardless of condition, children were highly accurate in their provision of information (See Table 8). There were no effects of video or of initial interviewer on overall accuracy of information provided during the second immediate interview. When information provided was divided into categories (actions, perpetrator, setting, victim) there was an effect of initial interviewer on the proportion of accurate information provided when describing the perpetrator, $F(1, 68) = 4.22$, $p = .044$, $\eta_p^2 = .06$. Children who were initially interviewed by their parent were more accurate in their overall descriptions of the perpetrator than children who were first interviewed by a trained interviewer (See Table 8).

Accuracy of central and peripheral information. Next, the accuracy of information provided was divided into the accuracy of central and peripheral information. There were no effects of video or of initial interviewer on accuracy of central information

provided during the second immediate interview. Nor were there any differences in the accuracy of central information across the various categories of information provided (See Table 8).

There were effects of both video, $F(1, 71) = 10.03$, $p = .002$, $\eta_p^2 = .12$ and initial interviewer, $F(1, 71) = 5.93$, $p = .017$, $\eta_p^2 = .08$ on the accuracy of peripheral information recalled by children. Children were more accurate in their recall of peripheral information about the purse theft video ($M = .88$, $SD = .10$) than about the candy store video ($M = .78$, $SD = .16$). Children who were initially interviewed by a parent were more accurate in their recall of peripheral information than children who were initially interviewed by a trained interviewer (See Table 8).

There was an effect of video on the accuracy of peripheral information provided about the victim, $F(1, 42) = 44.52$, $p < .001$, $\eta_p^2 = .52$. Children who watched the purse theft video were more accurate in their descriptions of the peripheral characteristics of the victim ($M = .98$, $SD = .09$) than children who watched the candy store video ($M = .36$, $SD = .48$).

Summary. Comparisons of the information provided by those children who completed a second immediate interview indicated there were no overall effects of initial interviewer. When information was divided into central and peripheral information, children who were initially interviewed by a parent provided more central information about the perpetrator and the victim than children who were initially interviewed by a trained interviewer. In contrast, children who were initially interviewed by a trained

interviewer provided more central information about the setting than children who were initially interviewed by a parent.

When the effects of video were assessed, children provided more central information in the candy store video condition than in the purse theft video condition. This was shown in their descriptions of the actions and the setting. In contrast, children provided more peripheral information in the purse theft video condition than in the candy store video condition. Video x initial interviewer interactions revealed those children who were initially interviewed by a parent provided more peripheral information in the candy store condition than those children initially interviewed by a trained interviewer. In contrast, those children initially interviewed by a trained interviewer provided more peripheral information in the purse theft video condition than those children interviewed by a parent. When recall of peripheral information about actions was assessed, there were no differences across initial interviewers for children in the purse theft condition, but children who were initially interviewed by a parent provided more information in the candy store condition.

Assessments of the accuracy of information provided revealed there were no differences in overall accuracy or in the accuracy of central details provided. Children who were initially interviewed by a parent were more accurate in their overall provision of information about the perpetrator and in their general recall of peripheral information. When peripheral recall was more closely assessed, children were more accurate in their recall of the purse theft video than in their recall of the candy store video. This was shown in their recall of the victim.

The One-Week Follow-up Interview

In this section, differences in the information provided in the one-week follow-up interview are assessed. As in the preceding sections, children who were initially interviewed by their parents will be compared to children who were initially interviewed by a trained interviewer. In this section, the potential influence of the second immediate interview is also assessed.

Overall information provided. An overall ANOVA was first used to assess differences in the overall proportion of information children recalled in the one week follow-up interview. Then, separate ANOVAs were conducted to assess differences in the proportion of information children recalled about the actions, the perpetrator, the setting, and the victim. Initial analyses indicated no differences in recall as a function of child gender or child age. Accordingly, the data were collapsed across these variables for subsequent analyses. The analyses described were 2 (video: store or purse theft) x 2 (initial interviewer: parent or trained) x 2 (previous interviews: one or two) ANOVAs with the proportion of information provided as the dependent variable. The means of the overall, central, and peripheral information children provided to parents and to trained interviewers across videos in all conditions can be found in Appendices T-V and children's accuracy rates for this information can be found in Appendices W-Y.

When the overall information provided by children was considered (See Table 9), there were no main effects of video, initial interviewer, or number of previous interviews. There was however, a video x number of previous interviews interaction, $F(1, 150) = 4.87$, $p = .029$, $\eta_p^2 = .03$. Children in the candy store condition who were interviewed

once before (M = .46, SD = .10) recalled more information than children in the purse theft video condition who were interviewed once before (M = .41, SD = .09), children in the candy store condition who were interviewed twice before (M = .41, SD = .08), and children in the purse theft condition who were interviewed twice before, (M = .42, SD = .12), $F(1, 76) = 6.00$, $p = .017$, $\eta_p^2 = .07$ (See Figure 8).

When the information provided was divided into categories (actions, perpetrator, setting, and victim), several effects were found. There was an effect of video on recall of details about the action, $F(1, 150) = 13.87$, $p < .001$, $\eta_p^2 = .09$; the setting, $F(1, 150) = 25.61$, $p < .001$, $\eta_p^2 = .15$; and the victim, $F(1, 150) = 8.89$, $p = .003$, $\eta_p^2 = .06$. Children who watched the candy store video provided a greater proportion of information about the action (M = .62, SD = .18) and the setting (M = .49, SD = .13) than children who watched the purse theft video (M = .52, SD = .15 for the action and M = .39, SD = .12 for the setting). In contrast, children who watched the purse theft video recalled a greater proportion of information about the victim (M = .26, SD = .14) than children who watched the candy store video (M = .19, SD = .16). There was also a video x number of interviews interaction, $F(1, 150) = 4.06$, $p = .046$, $\eta_p^2 = .03$. Regardless of whether children were interviewed once or twice before, children in the candy store condition recalled more information about the setting (M = .51, SD = .12, one prior interview; M = .48, SD = .14, two prior interviews) than children in the purse theft condition (M = .39, SD = .10, one prior interview, M = .40, SD = .14, two prior interviews). The difference across number of interviews was more pronounced in the candy store video than in the purse theft video (See Figure 9).

Central and peripheral information provided. When the information was divided into central and peripheral details, additional effects emerged. When the overall amount of central information was considered, there was an effect of video, $F(1, 150) = 16.86$, $p < .001$, $\eta_p^2 = .10$. Children in the candy store video condition recalled a higher proportion of central information ($M = .48$, $SD = .08$) than children in the purse theft video condition ($M = .42$, $SD = .10$).

When the proportion of central information recalled was divided by category of information (actions, perpetrator, setting, and victim), there was an effect of video on the proportion of central information recalled about the actions, $F(1, 150) = 28.10$, $p < .001$, $\eta_p^2 = .16$; the perpetrator, $F(1, 150) = 16.58$, $p < .001$, $\eta_p^2 = .10$; the setting, $F(1, 150) = 9.11$, $p = .003$, $\eta_p^2 = .06$; and the victim, $F(1, 150) = 5.61$, $p = .019$, $\eta_p^2 = .04$. At the one-week follow-up, children who watched the candy store video recalled a higher proportion of central information about actions ($M = .75$, $SD = .17$), the perpetrator ($M = .39$, $SD = .13$), setting ($M = .83$, $SD = .15$), and victim ($M = .21$, $SD = .13$) than children who watched the purse theft video ($M = .61$, $SD = .17$ for the actions; $M = .31$, $SD = .12$ for the perpetrator; $M = .75$, $SD = .19$ for the setting; and $M = .17$, $SD = .10$ for the victim). There were also effects of the number of previous interviews on the proportion of central information recalled about the perpetrator, $F(1, 150) = 5.87$, $p = .017$, $\eta_p^2 = .04$; and the victim, $F(1, 150) = 6.32$, $p = .013$, $\eta_p^2 = .04$. Children who were interviewed once previously recalled more central information about the perpetrator ($M = .38$, $SD = .15$) than children who were interviewed twice previously ($M = .33$, $SD = .12$). Likewise, children who were interviewed once previously ($M = .21$, $SD = .14$) recalled more central

information about the victim than children who were interviewed twice previously (M = .16, SD = .08).

When overall recall of peripheral information was considered, there was a video by number of previous interviews interaction, $F(1, 150) = 7.15$, $p = .008$, $\eta_p^2 = .05$. Follow-up analyses revealed that for children who watched the candy store video, being interviewed only once previously ($M = .42$, $SD = .15$) led to better recall of the peripheral information than being interviewed twice previously ($M = .35$, $SD = .13$), $F(1, 76) = 4.30$, $p = .042$, $\eta_p^2 = .05$. In contrast, for children who viewed the purse theft video, being interviewed twice previously ($M = .43$, $SD = .15$) led to better recall of peripheral information ($M = .38$, $SD = .12$). However, this difference was not significant (See Figure 10).

When the proportion of peripheral information recalled was divided by category of information (actions, perpetrator, setting, and victim), there were effects of interviewer on the proportion of peripheral information recalled about the actions, $F(1, 150) = 3.97$, $p = .048$, $\eta_p^2 = .03$; and about the perpetrator, $F(1, 150) = 4.67$, $p = .032$, $\eta_p^2 = .03$ (See Table 9). Children who were initially interviewed by a parent recalled more about the actions at one-week than children who were initially interviewed by a trained interviewer. Children who were initially interviewed by a trained interviewer recalled more about the perpetrator at one week than children who were initially interviewed by their parent. There were also effects of video on the proportion of peripheral information recalled about the setting, $F(1, 150) = 12.41$, $p = .001$, $\eta_p^2 = .08$; and about the victim, $F(1, 150) = 40.50$, $p < .001$, $\eta_p^2 = .21$. Children who watched the candy store video recalled more

peripheral information about the setting (M = .27, SD = .20) than children who watched the purse theft video (M = .18, SD = .13). Children who watched the purse theft video recalled more peripheral information about the victim (M = .38, SD = .22) than children who watched the candy store video (M = .12, SD = .29). There was also a video x number of interviews interaction for children's recall of peripheral actions, $F(1, 150) = 6.80$, $p = .010$, $\eta_p^2 = .04$. Follow-up analyses indicated that children who viewed the candy store video recalled more peripheral information about the actions if they were interviewed once previously (M = .54, SD = .28) as opposed to if they were interviewed twice previously (M = .42, SD = .23). In contrast, children who viewed the purse theft video recalled more peripheral information about the actions if they were interviewed twice previously (M = .50, SD = .18) as opposed to if they were interviewed once previously (M = .43, SD = .18). Neither of these differences was statistically significant (See Figure 11).

Overall accuracy. The accuracy of the information provided by children at one week was then assessed. First, an overall ANOVA was used to assess differences in the overall proportion of information children accurately recalled. Next, separate ANOVAs were conducted to assess differences in the proportion of information children accurately recalled about the setting, the perpetrator, the actions, and the victim. Again, because children needed to provide information in order for it to be considered accurate or inaccurate, the Ns for each cell varied. In the case of age, this sometimes made a comparison across all age groups impossible. Under those circumstances the seven- and eight-year-olds and the nine- and ten-year-olds were combined. Initial analyses indicated

no differences in accuracy of recall as a function of child gender or age. Accordingly, the data were collapsed across these variables for subsequent analyses. The analyses described were 2 (video: store or purse theft) x 2 (initial interviewer: parent or trained) x 2 (previous interviews: one or two) ANOVAs with the proportion of information accurately recalled as the dependent variable.

At the one-week follow-up interview children continued to show high rates of accuracy (See Table 10). When the overall accuracy of information provided by children was considered there were no effects of video, initial interviewer or number of previous interviews. When the information provided was divided into categories (actions, perpetrator, setting, and victim), an effect of video on the overall accuracy of recall about the perpetrator was found, $F(1, 144) = 10.25$, $p = .002$, $\eta_p^2 = .07$. Children who watched the purse theft video were more accurate in their recall of the perpetrator ($M = .80$, $SD = .17$) than children who watched the candy store video ($M = .71$, $SD = .18$).

Accuracy of central and peripheral information. When the accuracy of information was divided into accuracy of central and peripheral information, there were no differences in the accuracy of central information across interviewers, videos, or number of interviews. There were effects of both video, $F(1, 150) = 29.57$, $p < .001$, $\eta_p^2 = .17$ and interviewer on the overall accuracy of peripheral information, $F(1, 150) = 4.24$, $p = .041$, $\eta_p^2 = .03$. Children were more accurate in their provision of peripheral information in the purse theft video condition ($M = .88$, $SD = .10$) than in the candy store video condition ($M = .75$, $SD = .19$). Children who were initially interviewed by a parent were more accurate in their provision of peripheral information than children who were

initially interviewed by a trained interviewer (See Table 10). When information was assessed according to category of information (actions, perpetrator, setting, and victim), there was an effect of video on the accuracy of peripheral information recalled about the victim, $F(1, 66) = 155.84, p < .001, \eta_p^2 = .70$. Children who watched the purse theft video ($M = .95, SD = .13$) were more accurate in the peripheral details provided about the victim than children who watched the candy store video ($M = .15, SD = .32$).

Summary. Analyses of the information provided by children during the one-week follow-up interview indicated there were no main effects of initial interviewer on recall for overall, central, and peripheral information. However, children who were initially interviewed by a trained interviewer provided more peripheral information about the perpetrator than children who had been initially interviewed by a parent, and children who were initially interviewed by a parent provided more peripheral information about the action than children who were initially interviewed by a trained interviewer. As outlined below, video x initial interviewer interactions were observed in the recall of some categories of overall, central, and peripheral information.

The specific video children watched influenced recall in the one week follow-up interview. Children who were interviewed about the candy store video recalled more overall information and more central information than children who had been interviewed about the purse theft video. When the effects of video were further assessed, children who watched the candy store video recalled more information about the setting and the actions than children who watched the purse theft video. In contrast, children who watched the purse theft video recalled more information about the victim than children

who watched the candy store video. The differences in recall of central information held across all categories of information recalled. There were no differences in total recall of peripheral information. However, children recalled more peripheral setting information about the candy store theft than about the purse theft and more peripheral victim information about the purse theft than about the candy store theft. When the number of interviews was considered, children who had had only one previous interview recalled more central information about the perpetrator and the victim than children who had had two previous interviews.

There were interactions of video with both the initial interviewer and the number of previous interviews. Children's greater recall of setting details in the candy store video condition were larger if children had been initially interviewed by a parent than by a trained interviewer and if children had had only one previous interview, respectively. Children who had been interviewed once previously recalled more overall information about the candy store theft than children who had been interviewed twice previously and more than children who had been interviewed once or twice previously about the purse theft. Similarly, children who watched the candy store video recalled more peripheral information if they had only been interviewed once previously. In contrast, children who watched the purse theft video recalled more information if they had been interviewed twice previously than if they had been interviewed once previously.

Assessments of the accuracy of information provided by children showed there were no effects of initial interviewer on overall accuracy or on central accuracy. Children who were initially interviewed by a parent were more accurate in their provision

of peripheral information than children who were initially interviewed by a trained interviewer. Finally, children who watched the purse theft video were more accurate in their provision of peripheral information and for peripheral details provided about the victim than children who watched the candy store video.

Consistency of Information

In addition to considering the influence an early parent interview could have on the amount and accuracy of information children provide in subsequent interviews, it is important to consider the potential influence of an early parent interview on children's consistency. Consistency refers to children's provision of the same amount of information across recall opportunities as well as whether the information they continue to provide is accurate or inaccurate. To assess consistency, the information children provided about each category of information (actions, perpetrator, setting, and victim) during the initial interview was compared to the information they provided during the one-week follow-up interview. Mixed analyses of variance were completed with proportion of information children provided (initially provided versus continued to provide at one-week) as the within subjects variable and initial interviewer (parent versus trained), video (candy store versus purse theft), and number of previous interviews (one versus two) as the between subjects variables. Initial analyses revealed no effects of child age or child gender and as a consequence they were not included in the analysis.

Consistency of action recall. Children provided more information about actions in the one-week follow-up interview ($M = .57$, $SD = .17$) than they had in the initial interview ($M = .46$, $SD = .22$), $F(1, 149) = 37.18$, $p < .001$, $\eta_p^2 = .20$. This was qualified

by an effect of initial interviewer, $F(1, 149) = 50.54$, $p < .001$, $\eta_p^2 = .25$ and an initial interviewer x video interaction, $F(1, 149) = 50.54$, $p = .026$, $\eta_p^2 = .03$. In the initial interview, children provided more information about the actions to a trained interviewer ($M = .56$, $SD = .17$) than they did to parents ($M = .37$, $SD = .23$ for parents), $F(1, 155) = 36.77$, $p < .001$, $\eta_p^2 = .19$. In contrast, in the follow-up interview, there was no difference. When the interaction was considered, it became apparent that the effects differed depending on the video watched. In the first interview, whether children watched the candy store video ($M = .37$, $SD = .26$ for the parents; $M = .60$, $SD = .18$ for the trained interviewer) or the purse theft video ($M = .36$, $SD = .20$ for the parents; $M = .52$, $SD = .15$ for the trained interviewer), children provided more information to the trained interviewer than they did to a parent [$F(1, 76) = 20.35$, $p < .001$, $\eta_p^2 = .21$ for the candy store video, $F(1, 77) = 16.62$, $p < .001$, $\eta_p^2 = .18$ for the purse theft video]. In contrast, when the one-week follow-up interview was considered, there was no difference across interviewers in the proportion of action details provided by children who had watched the purse theft video ($M = .52$, $SD = .17$ for the parents, $M = .52$, $SD = .14$ for the trained interviewers), but children who were initially interviewed by a parent ($M = .66$, $SD = .15$) recalled more action details in the candy store video than children who were initially interviewed by a trained interviewer ($M = .57$, $SD = .20$), $F(1, 76) = 5.17$, $p = .026$, $\eta_p^2 = .06$.

Consistency of perpetrator recall. Children provided more information at the follow-up interview ($M = .43$, $SD = .14$) than they had in the initial interview ($M = .39$, $SD = .17$), $F(1, 150) = 11.97$, $p = .001$, $\eta_p^2 = .07$. This was qualified by an interaction with initial interviewer, $F(1, 150) = 6.98$, $p = .009$, $\eta_p^2 = .04$. In the initial interview,

children provided more information to the trained interviewer ($M = .43$, $SD = .12$) than they did to the parent ($M = .34$, $SD = .20$), $F(1, 156) = 11.08$, $p = .001$, $\eta_p^2 = .07$. In the follow-up interview, there was no difference depending on who the initial interviewer was ($M = .43$, $SD = .14$ for children initially interviewed by a parent and $M = .44$, $SD = .13$ for children initially interviewed by a trained interviewer).

Consistency of setting recall. Children provided more information about the setting in the final interview ($M = .44$, $SD = .13$) than they did in the initial interview ($M = .33$, $SD = .16$), $F(1, 150) = 124.66$, $p < .001$, $\eta_p^2 = .45$. This, too, was qualified by an interaction with initial interviewer, $F(1, 150) = 88.88$, $p < .001$, $\eta_p^2 = .37$. In the initial interview, children provided more information about the setting to the trained interviewer ($M = .43$, $SD = .12$) than they did to a parent ($M = .23$, $SD = .13$), $F(1, 156) = 99.13$, $p < .001$, $\eta_p^2 = .39$. In the one-week follow-up interview, children provided an equivalent amount of information to the trained interviewer regardless of whether they were initially interviewed by a trained interviewer ($M = .44$, $SD = .12$) or by a parent ($M = .44$, $SD = .15$).

Consistency of victim recall. An assessment of the information children provided at the initial interview versus the information they continued to provide at the one-week follow-up interview revealed no difference in the information provided about the victim.

Accuracy of information. When the accuracy of children's information in the initial interview versus the one-week follow-up interview was considered, children were more accurate in the initial interview than in the follow-up interview in their descriptions

of the actions (M = .99, SD = .05 for the initial interview; M = .97, SD = .07 for the follow-up), $F(1, 147) = 8.56$, $p = .004$, $\eta_p^2 = .06$; the perpetrator (M = .80, SD = .18 for the initial interview; M = .75, SD = .18 for the follow-up), $F(1, 148) = 9.65$, $p = .002$, $\eta_p^2 = .06$; and the setting (M = .83, SD = .20 for the initial interview; M = .79, SD = .18 for the follow-up), $F(1, 146) = 5.96$, $p = .016$, $\eta_p^2 = .04$. There were no differences in the accuracy of information provided about the victim and no effects of initial interviewer.

Incorporation of parent-suggested information. Finally, the extent to which children continued to incorporate information that had been suggested by parents in the initial interview was assessed. Children continued to incorporate 100% of the accurate parent-suggested information in subsequent interviews. Of the 28 incorrect pieces of information parents suggested, 11 pieces of information were accepted only in the initial parent interview and 7 pieces of those parent-suggested pieces of incorrect information continued to be mentioned in subsequent interviews. No parent-suggested information was mentioned in just one follow-up interview.

Discussion

In this portion of the current study, the potential effects of an early parent interview on children's performance in later interviews was assessed. Because any potential effects could be seen as effects of an initial interview and not effects that were specific to parent-child discussion, an additional group of children participated who had an early interview with a trained interviewer. Prior to assessing the effects of these early interviews on later interviews, the initial interviews themselves were compared.

Parents versus Trained Interviewers

Comparisons of the information provided by children to parents versus trained interviewers showed that children provided more information to trained interviewers than to parents for overall, central, and peripheral information. The effect sizes associated with these differences would all be classified as medium to large effects (Cohen, 1988). There were no differences in the accuracy of children's recall for overall and peripheral information, but children were more accurate in their provision of central details when interviewed by a trained interviewer than when interviewed by a parent.

The finding that children provided more information to the trained interviewers than they did to their parents whether overall, central or peripheral recall was considered supports Hypothesis 2.1. Support was also shown through children's overall and peripheral recall of the setting and actions and through their central recall of the setting and the perpetrator. Past research has rarely compared the information children provide to parents with the information they provide to trained interviewers. In the few studies that have made this comparison, children have generally provided more information in

response to trained interviewers than in response to parents unless parents were given a structured interview (Jackson & Crockenberg, 1998; Ricci et al., 1996). When parents are placed in the circumstance of having to ask children about such an event, they appear to have difficulty asking children the appropriate questions. Past research has demonstrated that parents show little patience and repeat questions or move on to new questions without giving children the time to answer (Ricci et al., 1996). In the present study, parents demonstrated similar behaviour through their tendency to overuse yes/no and direct questions. Research has shown that children tend to provide little information in response to these forms of questions (Hutcheson et al., 1995; Sternberg et al., 2002). It should come as no surprise, then, that when overall recall was considered, children provided less information in response to parent questions than in response to questions asked by a trained interviewer. Questions asked by the interviewers were mostly open-ended questions, questions to which children generally provide longer responses (Hutcheson et al., 1995; Sternberg et al., 2002).

The exceptions to the finding that children provided more information to trained interviewers than to parents were children's recall for victim details, and in the case of central information, children's recall for action details. A close assessment of the victim details shows that children provided very little information about the victim. Generally, children mentioned the gender of the individual, and in the case of the purse theft video, one or two additional details were provided. In fact, the victim was not queried by the trained interviewers as it was not seen as information that children would have to testify about, and hence, it is no surprise that little information regarding these individuals was

provided. In hindsight it would have been interesting to see what information children would have provided about the victim, as a focus on the victim may have interfered with children's ability to recall other event details. In the case of the central action details, past research comparing children's recall across the type of information shows these are the details best recalled (Shapiro et al., 2005). It appears, then, that regardless of who conducts an initial interview, central action details will be provided.

There were no differences in accuracy as a function of interviewer for overall information or for peripheral information, but children were more accurate in their provision of central details when interviewed by a trained interviewer than when interviewed by a parent, partially supporting Hypothesis 2.2. These differences in accuracy were evident in children's recall of central information about the perpetrator overall and in their recall of central information about the victim in the purse theft video. The effect sizes associated with the differences in accuracy were all small effects (Cohen, 1988). The finding that differences in accuracy were more common for central information was particularly surprising since past research has shown that when children are interviewed in a suggestive or leading manner, recall for peripheral details may be affected, but memory for central information continues to be accurate (Shapiro et al., 2005). Parents asked many yes/no questions and the differences in accuracy may have been a consequence of the use of direct and yes/no questions to assess central information about the perpetrator and the victim. The data contained in Table 4 appears to support this explanation. In response to parent questions, children made errors regarding the perpetrators' gender, age, and features, and errors regarding the victims' age and features,

central characteristics of both the perpetrator and the victim. Person details are the most difficult to recall (Mulder & Vrij, 1996; Oschner et al., 1999) which may partially explain errors in their provision. In the interviews conducted by trained interviewers, questions were generally open-ended questions and children were free to give the information they best recalled. Contrasting this, when asked direct questions, the types of questions many parents asked, children may have guessed at the answers.

It is important to point out that there were very few differences in accuracy regardless of who conducted the initial interview and the effect sizes associated with the differences were small. Children were, on average, 87% accurate in their overall recall in parent interviews and 89% accurate in their overall recall in interviews with trained interviewers. This was likely influenced by the finding that very few parents included leading or misleading questions in their interviews, that children recognized correct information suggested by parents, incorporating it into their recall of the event, and that most children recognized incorrect information and did not incorporate that information into their recall.

The Second Immediate Interview

After assessing the differences that existed in the initial interviews conducted by parents versus trained initial interviewers, the influence of these early interviews on subsequent interviews was assessed. Half of the children were interviewed by a trained interviewer immediately following their initial interview. Comparisons of the information provided by children in these interviews, suggests parent interviews may aid children's recall. When comparisons were made between the information provided in

this interview for those children who were initially interviewed by a parent versus those children initially interviewed by a trained interviewer, there were no differences in the overall amount of information recalled, but there were differences in the amount of central and peripheral information recalled. Children who were initially interviewed by a parent recalled more central information about the perpetrator and the victim, and more peripheral information about the candy store video than about the purse theft video than children who were initially interviewed by a trained interviewer. In contrast, children initially interviewed by a trained interviewer recalled more central information about the setting and more peripheral information about the purse theft video than about the candy store video than children who were initially interviewed by a parent. Similarly, there were no differences in overall or central accuracy. However, children who were initially interviewed by a parent were more accurate in their provision of peripheral information about the perpetrator than children who were initially interviewed by a trained interviewer.

In the initial interview, whether overall, central or peripheral recall was considered, children provided more information in response to trained interviewers than in response to parents. The finding that there were no differences in overall recall in the second immediate interview suggests that children were aware of the information in the initial interview, but just did not mention it. This is likely due to the questions parents asked. In studies where there were no differences between parents and trained interviewers, the parents used the same structured interview that trained interviewers used (Goodman et al., 1995; Ricci et al., 1996).

The differences in children's recall for central and peripheral information as a function of initial interviewer are difficult to explain. Past research has not assessed parent-child discussions at this level of detail, and thus, it is difficult to use past research to address the present findings. Children initially interviewed by a parent recalled more central information about the perpetrator and the victim than children initially interviewed by a trained interviewer. As previously mentioned, past research shows that people information is difficult for children to recall (Shapiro et al., 2005). A possible explanation for differences in the recall for the perpetrator and the victim is that the direct and yes/ no questions asked by parents provided a structure or scaffold to children that indicated what types of information they should recall, or that allowed them to comprehend the scenario in a manner that aided recall for this difficult-to-remember information. Past research supporting this idea has demonstrated that when children are only asked open-ended questions, they generally do not provide all information that they are capable of recalling (Hutcheson et al., 1995; Sternberg et al., 2002).

The differences in recall about the candy store versus the purse theft video by parents versus trained interviewers are also difficult to explain a priori, and require a close look at the questions parents asked. Children appeared to be fascinated by the store in the candy store video. Most mentioned the toys to their parents. Perhaps as a consequence, many parents focused their discussion around the toys themselves, which likely accounts for some of the difference in recall of peripheral candy store theft information. Another possibility is that children better understood the candy store video, and consequently, their description of that video influenced parent questioning. If

children were better at describing what was happening in the candy store video than in the purse theft video, they may have inadvertently provided information to parents that allowed parents to ask better questions. Trained interviewers followed a script, and consequently, were less likely to be influenced by children's recounting of the video.

Further supporting this idea, children who were initially interviewed by a trained interviewer recalled more peripheral setting information about the purse theft video than about the candy store video. If children did not provide information about the purse theft video that allowed parents to structure their questions, then parents may have had difficulty posing questions regarding the setting. Children who were initially interviewed by a trained interviewer recalled more overall information about the setting than children who were initially interviewed by a parent. As shown in Part I of the study, parents were much more likely to question children about the actions and the perpetrator than to question children about the setting. In the case of the purse theft video, the failure to question children about the setting may have been particularly evident. The trained interviewers questioned all children about the setting.

These findings suggest that a closer analysis of the questions parents ask children may help to develop interviewing practices to be used with children. Children, at least in some circumstances, do provide more information to trained interviewers if they have first discussed the event with a parent.

There were no differences in overall accuracy or in central accuracy. Ceiling effects for accuracy may explain the failure to find any differences. Those children interviewed by their parents who were less accurate in the initial interview did not

continue to provide this inaccurate information in their second interview. Children who were initially interviewed by a parent were more accurate in their provision of peripheral information about the perpetrator than children who were initially interviewed by a trained interviewer. Parents asked children more direct and yes/no questions which makes this finding somewhat surprising. Past research has suggested that children make more errors in response to direct and yes/no questions (Hutcheson et al., 2005; Larsson et al., 2003; Peterson & Biggs, 1997; Peterson et al., 1999) and that leading questions in an earlier interview can negatively affect recall in a later interview (Bruck & Ceci, 1997; Thompson et al., 1997). In the second interview, children initially interviewed by a parent continued to be accurate, and in fact, were more accurate in their descriptions of the peripheral information about the perpetrator than children initially interviewed by a trained interviewer. One possibility is that parental scaffolding, through parental questioning, may have aided children's later recall. Intuitively, this does not make sense, as past research suggests children who were asked questions similar to those asked by parents should have made mistakes in the initial interview, and should have continued to make those mistakes in the second immediate interview. The current findings suggest that direct and yes/no questions may not be as problematic as research suggests, at least not when the questions are asked by parents who the children know have not seen the event. In fact, the results of the present study suggest that direct questions asked by parents aided children's recall of peripheral information about the perpetrator.

The One-Week Follow-Up Interview

Assessments of the information provided in the one-week follow-up interview indicated no overall effects of initial interviewer on the amount of overall information or on the amount of central information provided by children. Nor were there any differences in the accuracy of overall recall or central recall. In several instances being interviewed initially by a parent led to higher recall or more accurate recall than being interviewed by a trained interviewer. Children who were initially interviewed by a parent who watched the candy store video recalled more information about the setting than children who watched the purse theft video; they also recalled more peripheral action information; and with respect to accuracy, they were more accurate in their recall of peripheral details. In contrast, children who were initially interviewed by a trained interviewer recalled more peripheral perpetrator information than children who were initially interviewed by a parent.

The difference that existed in recall for peripheral action details recalled in the one-week follow-up interview is similar to the finding regarding peripheral setting details for the candy store video in the second immediate interview. Again, the peripheral details provided may be a result of the direct focus of parent questioning. In the interviews completed by the trained interviewers, children were explicitly questioned about the perpetrator's clothing. This likely explains the finding of increased peripheral perpetrator information in response to an initial interview by a trained interviewer.

Ceiling effects for accuracy may explain the lack of difference in overall and central accuracy. With regard to difference in peripheral accuracy, past research cannot

be used to explain this finding. It appears that the interview conducted by parents may have allowed children to more clearly assess the peripheral information in the video. This could be shown directly through the specific questions parents used. In recalling peripheral information for parents, children's memory for peripheral details may have been consolidated, allowing them to recall peripheral information in later interviews. An alternate explanation is a calming effect or an explanatory effect offered by parental discussions. Discussions with parents may have alleviated children's feelings of fear or discomfort with the situation, negating any negative influence of either the video or of an initial interview with a stranger. After talking through the event with parents, children could perhaps better focus on their memory for the event and not have to worry about negative feelings afforded by the video or the interview. Given the limited nature of memory, any focus on emotion or other factors may have detracted from children's ability to fully recall the event they are trying to describe (Richards & Gross, 2000).

Hypotheses 2.3 and 2.4 predicted that children who were initially interviewed by a parent would provide less information in later interviews and would be less accurate in later interviews, respectively. In contrast to Hypothesis 2.3, in both follow-up interviews, early parent interviews either had no effect on recall or aided recall, depending on the information assessed. The only exceptions were the extra central setting information and the extra peripheral information about the purse theft video recalled by children in the second immediate interview, and the extra peripheral perpetrator information recalled by children in the one-week follow-up interview. The effect sizes associated with differences in the provision of information were smaller in the second immediate

interview and the one-week follow-up interview than in the initial interview. In addition to the amount of recall, there were few effects of an initial interviewer on the accuracy of recall in later interviews. In contrast to Hypothesis 2.4, an initial interview by a parent either had no effect on subsequent recall, or in the case of peripheral information, it appeared to aid recall. Past research has shown that when children experience complex or negative events, discussion with a parent can aid recall (Ackil et al., 2003; Boland et al., 2003; Clarke-Stewart & Beck, 1999; Goodman et al., 1994; 1997; Lange & Carroll, 2003). In the case of Goodman et al.'s (1994) study, the positive influence of parent discussions was shown with children in the same age range as children in the present study. It appears that in this study, parental scaffolding could have had a similar positive effect on children's later recall.

The influence of the early interview was also assessed through the consistency of information provided by children. Results showed that children generally provided more information in response to trained interviewers in the initial interview, but by the one-week follow-up interview, those children who were initially interviewed by a parent could not be distinguished from children who had initially been interviewed by a trained interviewer. The one exception was the increase in information provided about the actions in the candy store video by those children who had initially been interviewed by a parent. This increase was not accompanied by an increase in errors. Again, when one looks at the overall picture, the presence of that early parental interview appears to aid children's recall.

When the incorporation of parent-suggested information was assessed, all children provided parent-suggested correct information, while few children continued to provide parent-suggested incorrect information. There were too few pieces of incorrect information provided to do a fair assessment of the circumstances under which children continue to incorporate parent-suggested information. That so few children incorporated parent-suggested information is interesting because, if the present study were representative of how parents and children would react had children witnessed a theft, very few children would show problems with suggestibility. The study suggests children have the ability to recognize correct and incorrect information offered by parents and to accept or refute that information accordingly.

The Presence of a Second Follow-up Interview

Past research has suggested that additional follow-up interviews can help (e.g., Goodman et al., 1991), hinder (Ceci & Huffman, 1997; Thompson et al., 1997) or have no effect (Peterson et al., 2004) on later recall. Hypothesis 2.5 predicted that the second immediate follow-up interview would equate those children who had initially been interviewed by a parent with those children who had initially been interviewed by a trained interviewer. This was assessed by looking at the effect this interview had on children's recall in the one-week follow-up interview and on the consistency of information provided by children. There were no main effects of number of previous interviews on children's recall. However, children who had two previous interviews recalled more information about the purse theft video, while children who had one previous interview recalled more information about the candy store video. The effect

sizes associated with these differences were small (Cohen, 1988). This pattern was also observed in children's recall of peripheral information about the candy store video and in their recall of the setting in the candy store video. Discussion of the many toys in the candy store video that had little to do with the theft should account for the peripheral information and the setting information children recalled. Children likely weeded out mention of this information in later interviews as they tried to recall what happened. If they had focused on recalling the toys, this might have interfered with the recall of the more central aspects of the video. In recalling the purse theft video, children may have seen the connection between information in this video as somewhat arbitrary. The extra discussion of this information likely made it easier to recall the video at a later time, as has been shown in past research (Conroy & Salmon, 2006; Peterson, 1996, 1999, 2002; Peterson & Bell, 1996; Peterson & Whalen, 2001). This finding has real life implications as it may be important to determine children's understanding of the event. If an event is viewed as complex, an extra interview/discussion may be necessary to aid recall. In contrast, if an event is understood or seen as coherent to the child, an extra interview/discussion may hinder recall. This should be further explored to determine whether this effect holds across other events and across children of varying ages.

The Effects of Video

Hypothesis 2.6 predicted that there would be no effects of video. In fact, there were small to medium effects of video in all three interviews. In interview one, children recalled more overall and peripheral information about the setting in the candy store video than in the purse theft video, and more peripheral information, including more

peripheral perpetrator and victim information in the purse theft video than in the candy store video. When the accuracy of information was considered, children were more accurate in their recall of central and peripheral information about the candy store video than of the purse theft video. In the second immediate interview, children recalled more about the setting in the candy store video than in the purse theft video, more central information about the candy store video and more peripheral information about the purse theft video, and they were more accurate in their recall of peripheral information about the purse theft video. In the one-week follow-up interview, children who watched the candy store video recalled more information and more central details about the actions and the setting and more peripheral information about the setting than children who watched the purse theft video. Children who watched the purse theft video recalled more information overall and peripheral information about the victim and were more accurate in their overall recall of the perpetrator and in their overall peripheral recall than children who watched the candy store video.

Past research suggests that there are differences in children's recall of events based on their content (Conroy & Salmon, 2006; Peterson, 1996, 1999, 2002; Peterson & Bell, 1996; Peterson & Whalen, 2001). Initially, the thought was that the two videos depicted a theft and were thus similar in nature. When the videos were later assessed, it became apparent that children might perceive the theft in the candy store video as more logically connected than the theft in the purse theft video. Children have probably discussed the wrongful nature of stealing from a store with their parents or have seen people get in trouble for stealing from a store in children's television shows. In contrast,

seeing someone steal from a purse would probably be a more unique event and consequently less logically connected for children. Past research has found that the pattern of recall differs such that children recall events that are logically connected better than events that are arbitrarily connected (Conroy & Salmon, 2006; Peterson, 1996, 1999, 2002; Peterson & Bell, 1996; Peterson & Whalen, 2001). Across all three interviews, children provided more information about the setting for the candy store video than about the purse theft video. In the second immediate interview, they recalled more central information about the candy store video than about the purse theft video and in the one-week follow-up interview they recalled more action information about the candy store video than about the purse theft video. In contrast, the differences in favour of better recall for the purse theft video were directed toward greater recall for peripheral information and for details about the victims, items that would not necessarily be helpful to descriptions provided in a real life situation. Given these findings, it is apparent that children had more difficulty recalling the purse theft video. Interestingly, both the interview with a parent and an additional interview aided children's recall for this video. This again suggests that extra effort may be required when asking children to recall events that are not logically connected.

In their comparison of children's recall for logically versus arbitrarily connected events, Conroy and Salmon (2006) found that additional discussion had no influence on children's recall of logically connected events, but it aided children's recall of arbitrarily connected events. Similar to this, if children in the present study perceived the candy store video as more logically connected, the additional interview may not have been

necessary to aid children's ability to discuss that event. In contrast, if children had difficulty connecting the events in the purse theft video, the additional interview might have helped their recall.

Goodman et al. (1994) have noted that children can describe having a VCUG more accurately and in greater detail if they have previously discussed it with a parent. In addition to being upsetting, children may not see any logical connection among the details of the VCUG. It could be that in addition to providing emotional comfort, parental discussion of the VCUG allowed children to logically connect those details. The finding in the present study that parental discussion helped children better recall the purse-theft video could be similar to Goodman et al.'s (1994) finding in that it allowed children to better comprehend an event they perceived as having no logical connection.

Effects of Gender and Age

Hypothesis 2.7 predicted that there would be no effects of gender. Past research has not shown differences in recall as a function of gender and consequently, it was not surprising that there were no effects of gender.

Hypothesis 2.8 predicted that older children would better recall information than younger children. Surprisingly, there were no effects of age in interview one or in the follow-up interview. In the second immediate follow-up interview, older children recalled more information about the perpetrator and seven-year-olds recalled less peripheral setting information than ten-year-olds. These findings are consistent with Hypothesis 2.8 and coincide with past research suggesting younger children recall less information than older children (Gobbo et al., 2002; Ornstein et al., 2006; Roebers &

Schneider, 2002). Hypothesis 2.8 also predicted that younger children would be less accurate than older children. There were no effects of age on accuracy. This contradicts the hypothesis and appears to contradict past research (Gobbo et al., 2002; Ornstein et al., 2006; Roebers & Schneider, 2002).

Summary

In the present study, early parent interviews differed from early interviews by a trained interviewer. Children provided more information to trained interviewers than they did to parents. There were no differences in overall accuracy or in accuracy of peripheral information, but children were more accurate in their provision of central information in response to a trained interviewer than in response to their parents. These effects did not carry through to the later interviews. There were very few effects of the early interview on children's later recall. The effect sizes associated with differences that did persist tended to be smaller in later interviews than those in the initial interview. An early parental interview appeared to have no effect on recall or to aid recall. Regardless of when later interviews were conducted, children rarely incorporated incorrect parent-suggested information into their later recall. Importantly, the study illustrates the value of considering the event children are asked to recall. Both videos used in the current study depicted a theft. However, children's ability to describe the videos differed and their descriptions of a particular video were sometimes influenced by who conducted the interviews and by the number of interviews children experienced. This result strongly suggests that it is inappropriate to generalize findings regarding specific events to events

in general. As will be further discussed, future studies should explore why such differences in the ability to describe an event occur.

Again, the findings of the present study demonstrate a necessity to continue research in this area. In addition to assessing differences in recall across events, future research should compare parent unstructured interviews to parent structured interviews. Perhaps if parents were taught how to talk to children about crime in the absence of direct forms of questioning, we would get the positive influence of parental comfort and scaffolding in the absence of the danger of parents providing incorrect information. This could be shown through a comparison of parents asking various styles of questions. As well, future research should assess whether differences in the timing of an initial interview (i.e., an initial interview that occurred after a longer duration) would influence the outcome of the interview. As shown in past research, providing misleading information after longer time periods increases the likelihood of children including misinformation in their reports (Peterson et al., 2004; Quas et al., 2007). It may be that children who resisted misinformation in the present study would not have been able to resist it after a longer time delay. As well, there are often lengthy delays between when a crime occurs and when children report it (Serin et al., 2011). It would be interesting to see whether the benefits added by the parent interview only work when the parent interview happens immediately or if there can be a delay between the event and the parent-child interview.

General Discussion

As discussed in the introduction, the media's presentation of taint hearings has led to questions regarding how parents discuss negative experiences with their children (Goodman, 2006). This topic is especially important when one considers the potential impact early discussions with a parent could have on later discussions with legal personnel. Research has clearly demonstrated that good questioning techniques are necessary in order to obtain complete and accurate event reports from children. Individuals who talk to children about negative events should avoid questions that suggest information, a task that is not easy when a person does not know what happened in his/her absence, making every question asked potentially leading or misleading (Ricci & Beal, 1998). Alternatively, as suggested in the present study and in past research (Jackson & Crockenberg, 1998; Mulder & Vrij, 1996), if children know that the person questioning them has no awareness of the event, they may be less suggestible. Thus it is important to inform children about the naivety of the adult interviewer.

Effective interviewing techniques require a combination of both open-ended and direct questions. More information is obtained when open-ended questions are asked (Sternberg et al., 2002), but direct questions may be needed to ensure the completeness of children's reports (Hutcheson et al., 1999; Poole & Lindsay, 1995). When children are asked direct questions however, they often make mistakes in their responses (Brady et al., 1999; Hutcheson et al., 1995; Lamb & Fauchier, 2001; Larsson et al., 2003; Peterson & Biggs, 1997; Peterson et al., 1999). Regardless of the type of question asked, information that suggests to a child what might have happened needs to be excluded (Cassel et al.,

1996; Thompsen et al., 1997). Part of the concern regarding parent questioning techniques, then, is whether parents rely on the direct questioning techniques that have previously been deemed ineffective or include suggestive information into their inquiries.

In the present study, parents did ask more direct and yes/no questions than open-ended questions. Those parents who asked open-ended questions more often received lengthier responses from their children than those parents who asked yes/no questions more often. Coinciding with this, children made more errors in response to the direct questions posed by parents than in response to open-ended questions posed by parents. Interestingly however, very few parents included suggestive information in their questions. Children recognized the correct information suggested by parents and included it in their event reports. In addition, most children recognized incorrect information suggested by parents and excluded it from their event reports. This may be attributable to the emphasis made towards parents' lack of knowledge regarding the video when discussing the task with children, prior to the interview.

A subtle effect of interviewer bias could be seen through the misinformation parents provided. For example, several parents assumed that a store keeper would be female and that a thief would be male. However, there were too few incidents of interviewer bias to actually assess when it occurred or when children chose to incorporate it. In the most famous taint hearing, the McMartin preschool case, the interviews conducted with children at the school included a combination of suggestive interviewing techniques and the effects were cumulative (Garven et al., 1998). In the present study, there was no suggestion of such ineffective questioning by parents.

The importance of parents in influencing children's responses is readily apparent if we consider the role parents play in teaching children how to discuss events. From the time children begin to talk, parents start helping them recognize the type and amount of information they should provide in event discussions (Fivush & Fromhoff, 1988; McCabe & Peterson, 1991; Nelson & Fivush, 2004; Peterson & McCabe, 1994). Parental aid occurs with practically all event discussion in children's preschool years, but is less evident in later childhood (Haden et al., 2001; McCabe & Peterson, 1994; Ornstein et al., 2004). Research has suggested that when children are faced with a complex event or an event that can lead to emotional turmoil, parent scaffolding can aid children's recall at later ages (e.g., Goodman et al., 1997). The responses children provided in later interviews in the present study are consistent with a parent scaffolding view. Somewhat surprisingly, parents talked to children about how watching the video made them feel. Perhaps as a consequence, children provided less information about the videos watched in response to parent questions in this early interview, but in later interviews provided just as much information as those children initially interviewed by a trained interviewer. The parent interview, then, did not influence the amount of information children later provided.

The potential effect of scaffolding is most apparent when the accuracy of information was assessed. In their initial interview with a parent, children were less accurate in their provision of central information than children who were initially interviewed by a trained interviewer. Contrasting this, there was little or no difference in overall or central accuracy in later interviews, but those children who were initially

interviewed by a parent were more accurate in their provision of peripheral information than those children who were initially interviewed by a trained interviewer. Effects of early parent interviews were especially pronounced in the seven-year-old children.

Past research has shown that parent-child discussions of the VCUG aided children's later recall, even amongst older children (Goodman et al., 1997). In the present study, parent-child discussion either had no effect or improved recall, depending on the specific nature of the information being recalled. This is especially interesting when one considers the high number of direct and yes/no questions parents asked. In past studies, it has been suggested that poorly conducted early interviews have negative effects on subsequent interviews (Thompson et al., 1997). Although the parents in the present study asked ineffective questions, it seems their interviews somehow positively affected children's later recall.

It is important to point out that in the present study, children were recounting an event, not reminiscing. Many studies assessing the influence of parents on children's memory have assessed the influence of early parent-child reminiscing on later recall (Fivush, 1994; Tessler & Nelson, 1994). In those studies, children recalled event details jointly discussed by themselves and their parents almost to the exclusion of event details they alone recalled or their parents alone recalled (Fivush, 1994; Tessler & Nelson, 1994). In the present study, despite providing little information to their parents, those children interviewed by their parents provided similar amounts of information in later interviews and were just as accurate, if not more accurate, than their age counterparts who had been initially interviewed by a trained interviewer.

The present study also differs from past research in that parents conducting the initial interview were not given any guidance as to how to talk to their children. In past research, parents were given, at the very least, a semi-structured interview (Jackson & Crockenberg, 1998; Leichtman et al., 2000; Ricci et al., 1996). Those studies could not show the types of questions parents would have asked if they had not been given suggestions for how to conduct the interview. In the studies where parents were given the questions, children provided an equivalent amount of information or more information to their parents than to a trained interviewer (Goodman et al., 1995; Jackson & Crockenberg, 1998; Leichtman et al., 2000; Ricci et al., 1996). The present study suggests that this is not what we should typically expect. As well, the study suggests the importance of assessing the influence of recounting on children's suggestibility. Children were aware that their parents had not seen the video and most resisted misinformation suggested by parents. This result coincides with past research suggesting children are comfortable refuting incorrect information provided by a parent (Jackson & Crockenberg, 1998; Mulder & Vrij, 1996).

Most past research has assessed children's memory for a positive event. This too likely influenced the outcome of the studies. For example, in Jackson and Crockenburg's (1998) study, children recalled more information about a picnic for a parent. As shown by Ochnser et al. (1999), recall for positive or unemotional events is not necessarily comparable to recall for negative events.

The present study provides additional information regarding consideration of the specific details of an event. In the present study, children appeared to recall the candy

store video better than the purse theft video. This may have been because the event details in the candy store video were more logically structured (to the child) than the event details in the purse theft video. This too coincides with past research (Conroy & Salmon, 2006; Peterson, 1996; 1999; 2002; Peterson & Bell, 1996; Peterson & Whalen, 2001). A multitude of studies illustrate the importance of considering the logical structure of an event sequence when assessing children's recall (Conroy & Salmon, 2006; Peterson, 1996; 1999; 2002; Peterson & Bell, 1996; Peterson & Whalen, 2001). Perhaps children better understood the candy store video and consequently influenced the questions parents asked. Children interviewed by a parent better recalled the candy store video than children interviewed by a trained interviewer. Similarly, children recalled the candy store video better than they recalled the purse theft video. Such differences across videos were not as apparent for children who were interviewed by a trained interviewer. Trained interviewers were following a script and thus their questioning was not as influenced by children's responses. Differences across interviewers suggest that we might limit our ability to effectively interview children when we use more structured styles of interviewing. Children likely view events differently than we do, and by using a script developed according to what we believe children should remember, we may not be obtaining complete reports of an event. Children in the present study demonstrated more difficulty in recalling the purse theft. Both a discussion with a parent and an additional interview helped children's recall. This suggests when events are arbitrarily connected or are in some other way more difficult for children to recall, extra effort may be needed to obtain complete reports from children.

Closely related, past research has emphasized the importance of not considering recall as a whole, but instead dividing recall into central and peripheral details (Cassel & Bjorklund, 1995; Roebers & Schneider, 2000; Shapiro et al., 2005). In the present study, findings were clearly dependent on whether recall was considered as a whole or whether it was divided into central and peripheral recall. This is a factor that needs to be considered in any study that assesses children's event recall. It might also be important to consider that adults' definitions of what to classify as central and peripheral information may not fairly apply to children. What we consider in viewing an event could be quite different from what children consider when viewing the same event. An examination of what children view as important versus unimportant could again allow us to better determine how children's memory works and how we could better elicit maximally complete and accurate reports from children.

A final issue of importance is when misinformation is suggested. In the present study, any misinformation suggested to a child was suggested within minutes of the child seeing the video. This likely influenced the finding that few children incorporated parent-suggested information into their event reports. As suggested by Quas et al. (2007), misinformation suggested close in time to an event may have little influence on children's later recall. As previously noted, future research should assess misinformation introduced in varying time intervals after the event.

The present study is the first known attempt to determine the actual nature of parent-child discussions of crime and to determine whether those discussions influence later discussions of crime. Findings demonstrate that parents discuss crime differently

than trained interviewers. Parents often used direct and yes/no questions, and perhaps as a consequence, children provided less information to parents than to trained interviewers. Some of the information they did provide was also less accurate than information provided to trained interviewers. Interestingly, the information provided in later interviews did not appear to be negatively influenced by these earlier interviews. In fact, recall for peripheral information seemed to be aided. This is the first known study to assess early parent interviews and their influence on subsequent recall to this extent. The findings appear to suggest that parents scaffold children's memory and may actually aid later recall. This is also the first known study to compare children's memory for two criminal events. Although it was initially thought that the videos were similar in nature, the findings clearly illustrate that it is inappropriate to assume memory for different events is the same. Differences in memory across the videos also indicates that the influence of parent questioning may differ depending on the event context and on whether children are recalling central versus peripheral information. When events seem to be arbitrarily connected to children, an extra interview or a discussion with a parent can help children's recall of that event. If other studies continue to demonstrate that parental discussions have no negative effect and may in fact aid children's recall, then there is little need to worry about the effect of early parent-child discussions on later discussions of crime in those instances where parents have nothing to gain from tampering with children's testimony. In fact, perhaps with the help of parents we can obtain event reports from children that are as complete and more accurate than those obtained by trained interviewers.

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Tables

Table 1

Means and Standard Deviations for the Questions Posed by Parents across Question Type

	Question type				
Information assessed	Open ended	Direct prompt	Yes/no	Statement	Overall
Relevant					
M	**2.84**[adf]	**5.43**[bde]	**8.27**[abc]	**0.56**[cef]	**17.09**[g]
SD	2.38	4.90	7.51	1.16	13.08
Safety					
M	1.08	0.63	1.67	0.39	**3.77**[g]
SD	1.59	1.36	2.70	1.01	5.12

Note. $N = 79$.
Means with the same superscripts are significantly different from each other at $p < .05$ or better. For ease of reading, significant findings are in bold.

Table 2

Forensically Relevant Information Provided to Parents

	Category of information				
	Actions	Perpetrator	Setting	Victim	Overall
M	**6.48**^{ab}	**6.46**^{cd}	**3.52**^{ace}	**2.66**^{bde}	19.11
SD	4.41	4.68	2.65	2.24	10.95

Note. $N = 79$.
Means with the same superscripts are significantly different from each other at $p < .05$ or better. For ease of reading, significant findings are in bold.

Table 3

The Average Number of Details Children Provided Across Question Type

	Question type			
	Open-ended	Direct	Yes/no	Overall
M	**8.72**[a]	**7.82**[b]	**2.57**[ab]	19.11
SD	7.83	5.94	4.04	10.95

Note. $N = 79$.
Means with the same superscripts are significantly different from each other at $p < .05$ or better. For ease of reading, significant findings are in bold.

Table 4

Errors Made in Response to Parent Questioning

Category of information	Number of children who made the error
Actions	6
Perpetrator	
Age	23
Clothing	27
Gender	1
Features	17
Setting	10
Victim/witness	
Age	8
Clothing	7
Features	3
Item taken	21

Note. $N = 79$.

Table 5

Proportion of Information Provided by Children Immediately Following the Video in the Analysis of Overall, Central, and Peripheral Recall

		Category of information				
Overall proportion		Actions	Perpetrator	Setting	Victim	Mean
Interviewer						
Parent						
	M	**.37**[a]	**.34**[b]	**.23**[c]	.20	**.29**[d]
	SD	.23	.20	.13	.16	.14
Trained interviewer						
	M	**.56**[a]	**.43**[b]	**.43**[c]	.22	**.42**[d]
	SD	.17	.12	.12	.14	.09
Overall						
	M	.46	.39	.33	.21	.36
	SD	.22	.17	.16	.14	.13

		Category of information				
Proportion central		Actions	Perpetrator	Setting	Victim	Mean
Interviewer						
Parent						
	M	**.47**[e]	.38	**.52**[f]	.19	**.37**[g]
	SD	.26	.20	.27	.13	.13
Trained interviewer						
	M	**.67**[e]	.35	**.78**[f]	.18	**.44**[g]
	SD	.19	.15	.17	.09	.08
Overall						
	M	.56	.37	.65	.19	.41
	SD	.25	.17	.26	.11	.12

Proportion peripheral		Category of information				
		Actions	Perpetrator	Setting	Victim	Mean
Interviewer						
Parent						
	M	**.29**[h]	**.30**[i]	**.04**[j]	.19	**.22**[k]
	SD	.26	.27	.09	.26	.16
Trained interviewer						
	M	**.47**[h]	**.53**[i]	**.19**[j]	.25	**.39**[k]
	SD	.22	.20	.16	.28	.13
Overall						
	M	.38	.42	.12	.22	.30
	SD	.26	.27	.15	.27	.17

Note. $N = 158$.
Means with the same superscripts are significantly different from each other at $p < .05$ or better. For ease of reading, significant findings are in bold.

Table 6

Proportion of Accurate Information Provided by Children Immediately Following the Video in the Analysis of Overall, Central, and Peripheral Recall

	Category of information				
Overall proportion	Actions	Perpetrator	Setting	Victim	Mean
Interviewer					
Parent					
M	.98	.79	.83	.92	.87
SD	.07	.21	.24	.16	.11
Trained interviewer					
M	.98	.81	.83	.96	.89
SD	.08	.14	.16	.10	.07
Overall					
M	.98	.80	.83	.94	.88
SD	.07	.18	.20	.13	.09

	Category of information				
Proportion central	Actions	Perpetrator	Setting	Victim	Mean
Interviewer					
Parent					
M	.98	**.80**[a]	.72	**.92**[b]	**.84**[c]
SD	.06	.25	.28	.18	.14
Trained interviewer					
M	.98	**.89**[a]	.75	**.99**[b]	**.89**[c]
SD	.08	.18	.17	.06	.07
Overall					
M	.98	.84	.74	.96	.87
SD	.07	.22	.23	.13	.11

		Category of information				
Proportion peripheral		Actions	Perpetrator	Setting	Victim	Mean
Interviewer						
Parent						
	M	.98	.77	.94	.86	.89
	SD	.13	.30	.24	.31	.19
Trained interviewer						
	M	.98	.76	.91	.90	.87
	SD	.07	.22	.22	.23	.12
Overall						
	M	.98	.77	.92	.88	.88
	SD	.10	.25	.22	.27	.16

Note. $N = 158$.
Means with the same superscripts are significantly different from each other at $p < .05$ or better. For ease of reading, significant findings are in bold.

Table 7

Proportion of Information Provided by Children in the Second Immediate Interview in the Analysis of Overall, Central, and Peripheral Recall

	Category of information				
Overall proportion	Actions	Perpetrator	Setting	Victim	Mean
Interviewer					
Parent					
M	.59	.46	.47	.23	.45
SD	.20	.14	.15	.15	.11
Trained interviewer					
M	.55	.46	.43	.22	.43
SD	.17	.12	.14	.12	.10
Overall					
M	.57	.46	.45	.22	.44
SD	.18	.13	.14	.14	.10

	Category of information				
Proportion central	Actions	Perpetrator	Setting	Victim	Mean
Interviewer					
Parent					
M	.67	**.40**[a]	**.77**[b]	**.20**[c]	.47
SD	.21	.16	.18	.14	.09
Trained interviewer					
M	.69	**.33**[a]	**.80**[b]	**.17**[c]	.45
SD	.16	.11	.17	.10	.07
Overall					
M	.68	.36	.79	.19	.46
SD	.18	.14	.18	.12	.08

Proportion peripheral		Category of information				
		Actions	Perpetrator	Setting	Victim	Mean
Interviewer						
Parent						
	M	.53	.54	.23	.27	.42
	SD	.26	.23	.20	.27	.16
Trained interviewer						
	M	.43	.61	.22	.26	.41
	SD	.25	.20	.15	.28	.15
Overall						
	M	.48	.57	.22	.27	.41
	SD	.26	.22	.18	.27	.15

Note. $N = 79$.
Means with the same superscripts are significantly different from each other at $p < .05$ or better. For ease of reading, significant findings are in bold.

Table 8

Proportion of Accurate Information Provided by Children in the Second Immediate Interview in the Analysis of Overall, Central, and Peripheral Recall

	Category of information				
Overall proportion	Actions	Perpetrator	Setting	Victim	Mean
Interviewer					
Parent					
M	.97	**.82**[a]	.79	.96	.88
SD	.08	.17	.19	.11	.10
Trained interviewer					
M	1.00	**.73**[a]	.78	.97	.86
SD	.02	.18	.18	.13	.09
Overall					
M	.98	.78	.78	.96	.87
SD	.06	.18	.18	.12	.09

	Category of information				
Proportion central	Actions	Perpetrator	Setting	Victim	Mean
Interviewer					
Parent					
M	.98	.84	.71	.99	.86
SD	.09	.23	.18	.05	.10
Trained interviewer					
M	1.00	.89	.68	1.00	.88
SD	.0	.18	.23	.00	.08
Overall					
M	.99	.87	.70	.99	.87
SD	.06	.21	.21	.04	.09

Proportion peripheral		Category of information				
		Actions	Perpetrator	Setting	Victim	Mean
Interviewer						
Parent						
	M	.97	.82	.79	.86	**.87**[b]
	SD	.08	.21	.33	.34	.13
Trained interviewer						
	M	.99	.63	.89	.92	**.80**[b]
	SD	.03	.24	.27	.24	.14
Overall						
	M	.98	.72	.84	.89	.83
	SD	.06	.24	.30	.30	.14

Note. $N = 79$.
Means with the same superscripts are significantly different from each other at $p < .05$ or better. For ease of reading, significant findings are in bold.

Table 9

Proportion of Information Provided by Children in the One-Week Follow-up Interview in the Analysis of Overall, Central, and Peripheral Recall

	Category of information				
Overall proportion	Actions	Perpetrator	Setting	Victim	Mean
Interviewer					
Parent					
M	.59	.43	.44	.21	.43
SD	.17	.14	.15	.13	.11
Trained interviewer					
M	.54	.44	.44	.23	.42
SD	.17	.13	.12	.17	.10
Overall					
M	.57	.43	.44	.22	.43
SD	.17	.14	.13	.15	.10

	Category of information				
Proportion central	Actions	Perpetrator	Setting	Victim	Mean
Interviewer					
Parent					
M	.69	.38	.77	.18	.46
SD	.20	.13	.18	.10	.10
Trained interviewer					
M	.67	.34	.80	.19	.45
SD	.18	.13	.17	.13	.09
Overall					
M	.68	.36	.79	.19	.45
SD	.19	.13	.18	.11	.10

Proportion peripheral		Category of information				
		Actions	Perpetrator	Setting	Victim	Mean
Interviewer						
Parent						
	M	**.50**[a]	**.49**[b]	.23	.23	.40
	SD	.21	.23	.20	.27	.14
Trained interviewer						
	M	**.44**[a]	**.57**[b]	.22	.27	.40
	SD	.24	.22	.15	.30	.14
Overall						
	M	.47	.53	.22	.25	.40
	SD	.23	.23	.18	.29	.14

Note. $N = 158$.
Means with the same superscripts are significantly different from each other at $p < .05$ or better. For ease of reading, significant findings are in bold.

Table 10

Proportion of Accurate Information Provided by Children in the One-week Follow-up Interview in the Analysis of Overall, Central, and Peripheral Recall

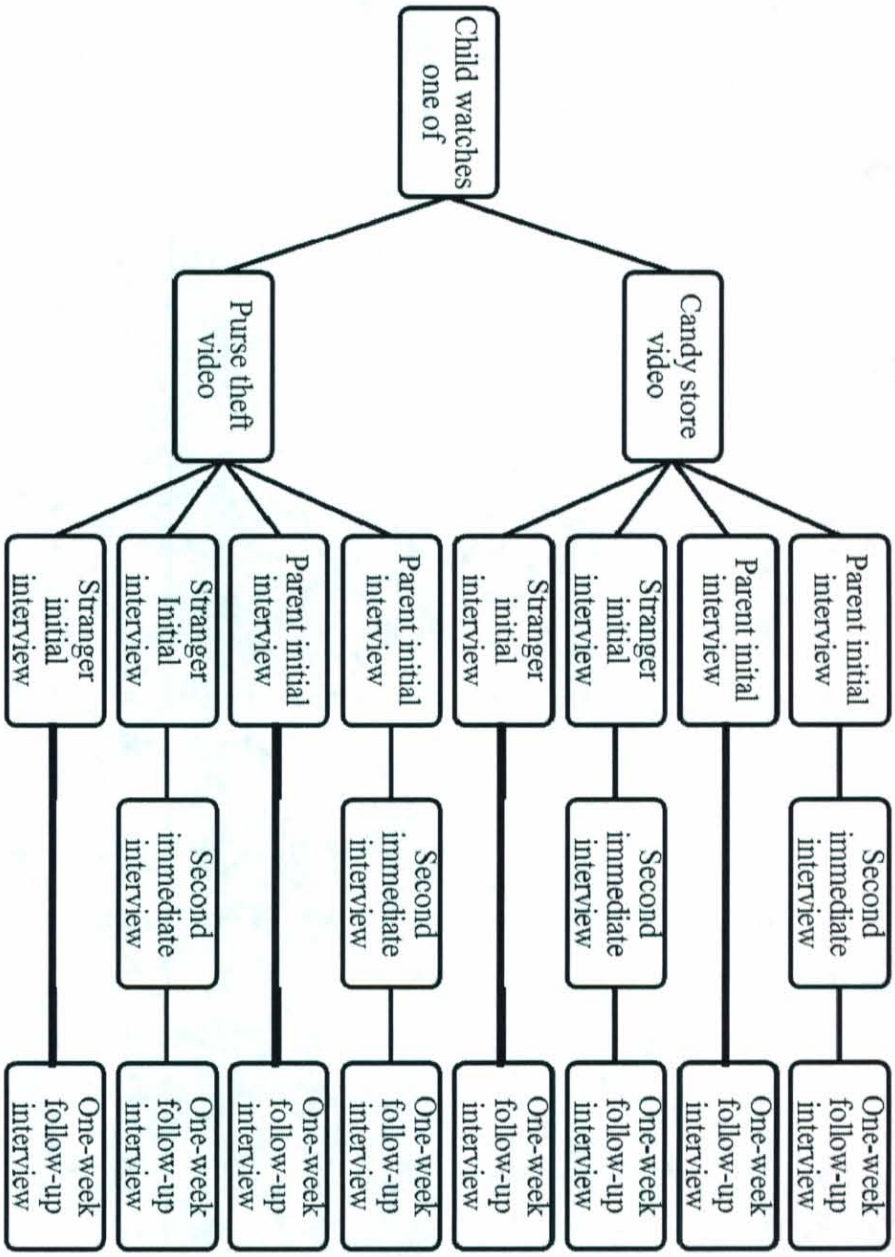
	Category of information				
Overall proportion	Actions	Perpetrator	Setting	Victim	Mean
Interviewer					
Parent					
M	.97	.76	.80	.96	.88
SD	.07	.17	.17	.13	.08
Trained interviewer					
M	.97	.74	.78	.91	.84
SD	.08	.19	.18	.16	.10
Overall					
M	.97	.75	.79	.94	.85
SD	.07	.18	.18	.15	.09

	Category of information				
Proportion central	Actions	Perpetrator	Setting	Victim	Mean
Interviewer					
Parent					
M	.69	.84	.85	.97	.87
SD	.20	.20	.24	.10	.09
Trained interviewer					
M	.67	.65	.85	.98	.85
SD	.18	.32	.19	.08	.09
Overall					
M	.68	.72	.85	.98	.86
SD	.19	.28	.20	.09	.09

Proportion peripheral		Category of information				
		Actions	Perpetrator	Setting	Victim	Mean
Interviewer						
Parent						
	M	.96	.69	.23	.88	**.84**[a]
	SD	.12	.27	.20	.30	.15
Trained interviewer						
	M	.95	.66	.22	.78	**.79**[a]
	SD	.12	.30	.15	.35	.18
Overall						
	M	.96	.67	.22	.83	.81
	SD	.12	.29	.18	.33	.17

Note. $N = 158$.
Means with the same superscripts are significantly different from each other at $p < .05$ or better. For ease of reading, significant findings are in bold.

Figures


Child watches one of
Candy store video
Purse theft video
Parent initial interview
Second immediate interview
One-week follow-up interview
Parent inital interview
One-week follow-up interview
Stranger initial interview
Second immediate interview
One-week follow-up interview
Stranger initial interview
One-week follow-up interview
Parent initial interview
Second immediate interview
One-week follow-up interview
Parent initial interview
Second immediate interview
One-week follow-up interview
Stranger Initial interview
Second immediate interview
One-week follow-up interview
Stranger initial interview
One-week follow-up interview

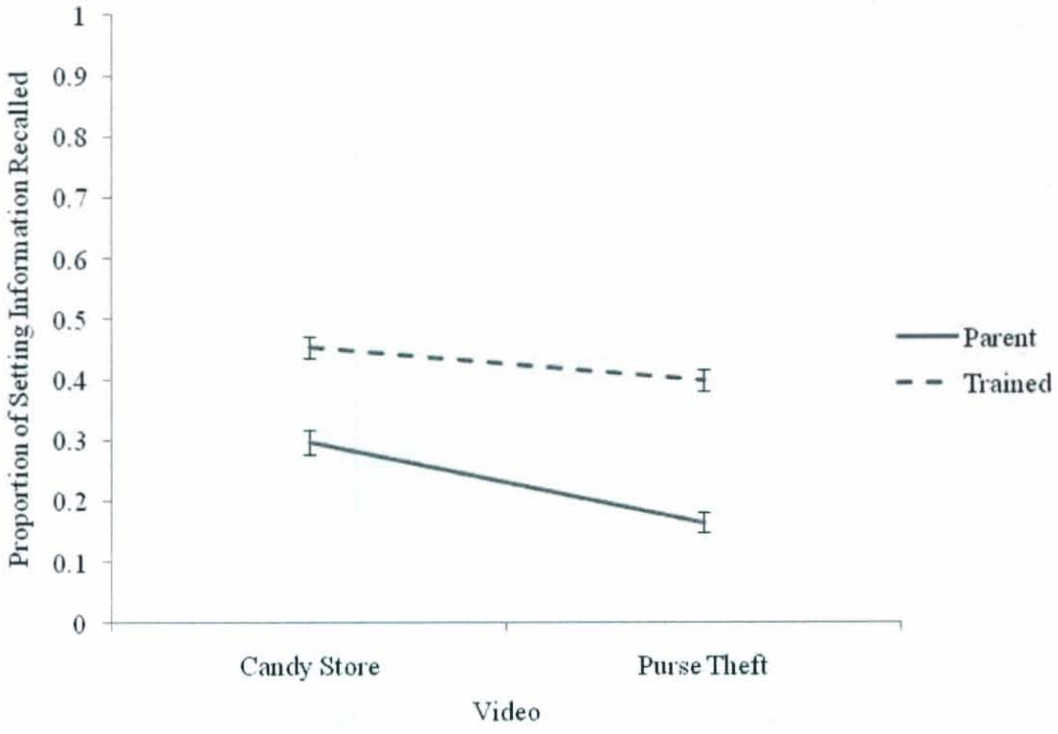


Figure 2. The proportion of setting information recalled in each interview condition immediately following each video.
Error bars represent standard errors.

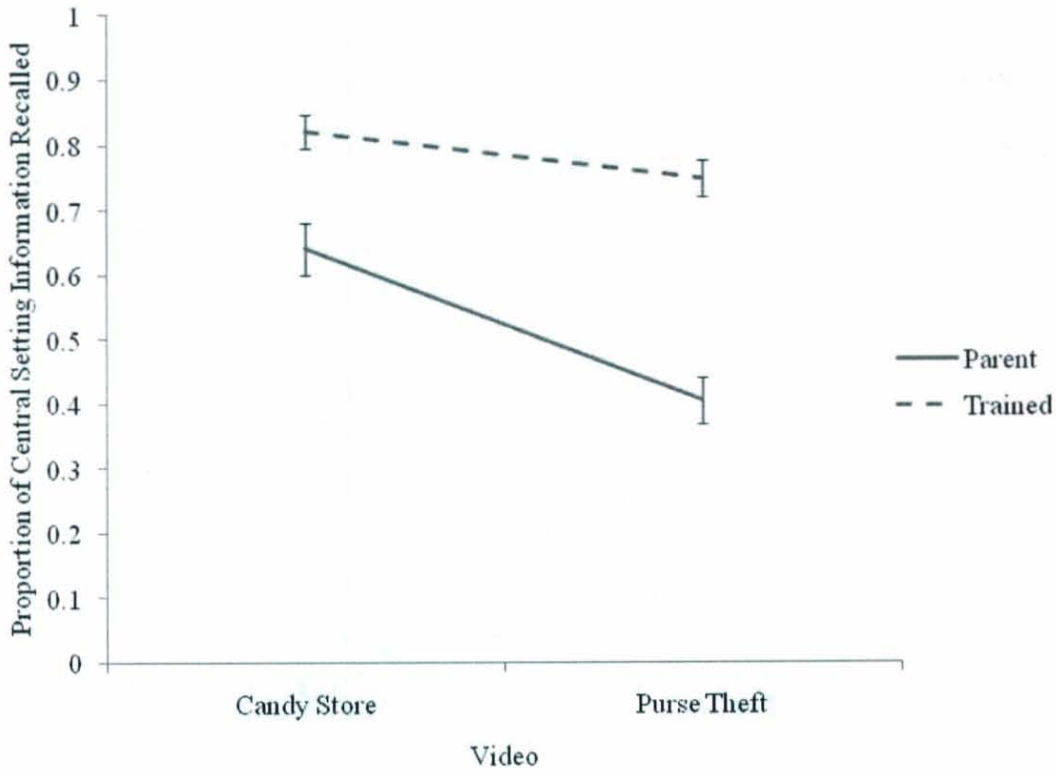


Figure 3. The proportion of central setting information recalled in each interview condition immediately following each video.
Error bars represent standard errors.

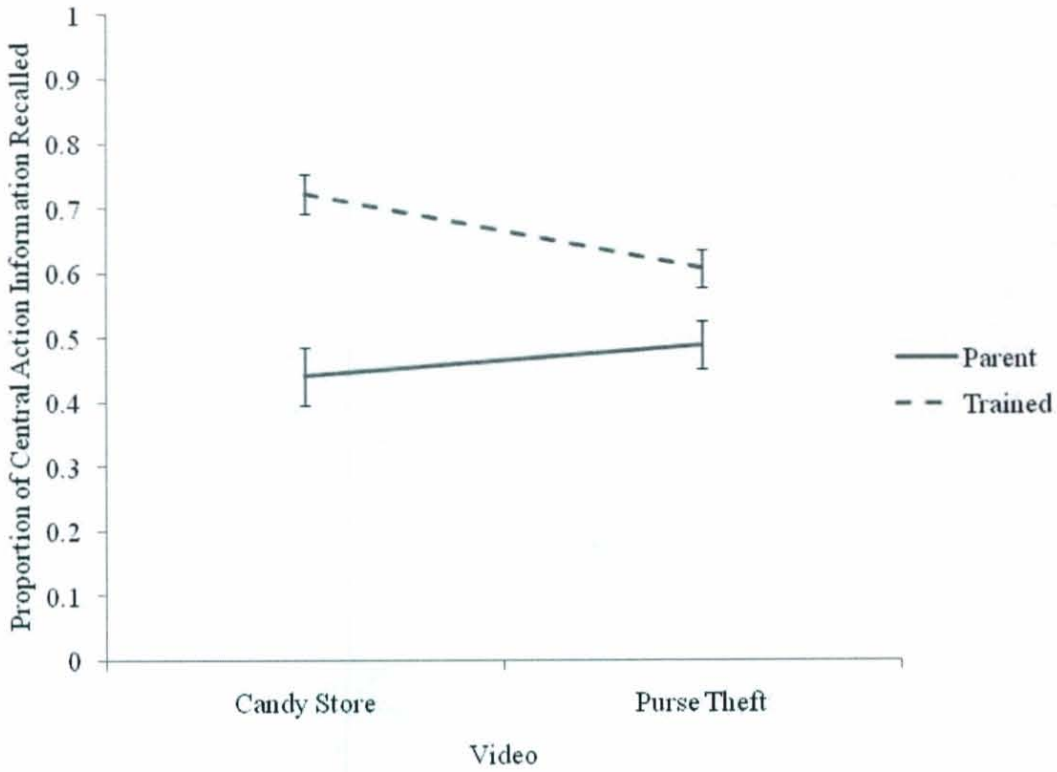


Figure 4. The proportion of central action details recalled in each interview condition immediately following each video.
Error bars represent standard errors.

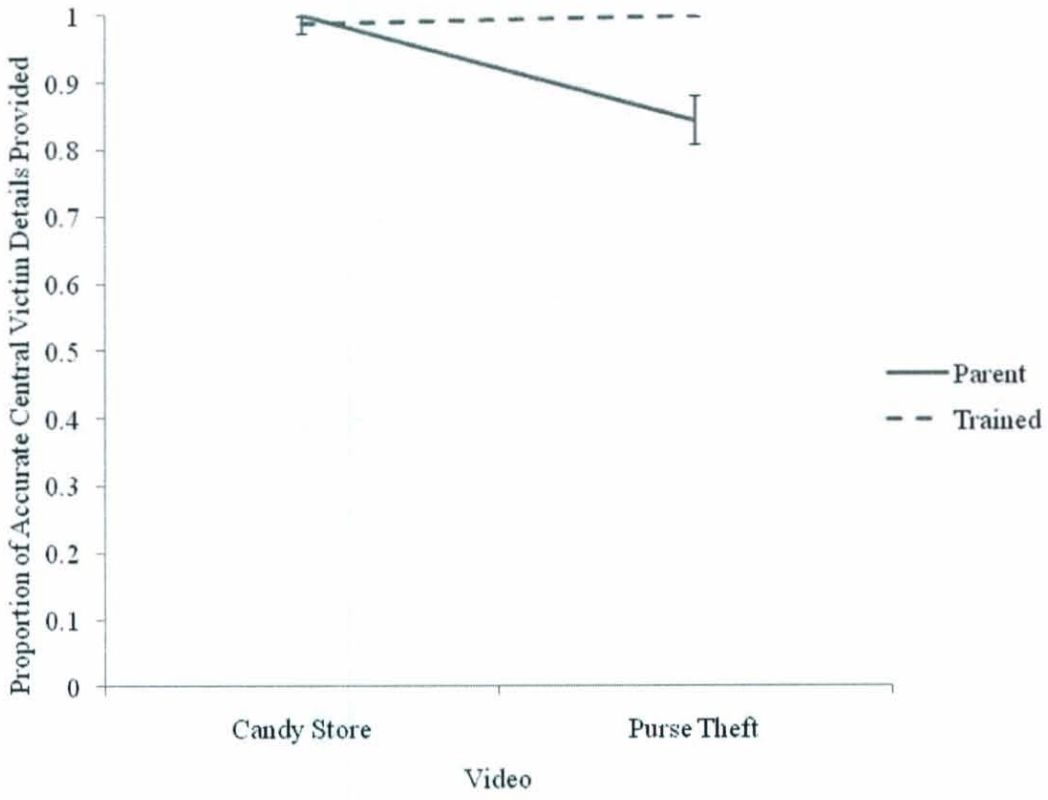


Figure 5. The proportion of accurate central victim details provided in each interview condition immediately following each video.
Error bars represent standard errors.

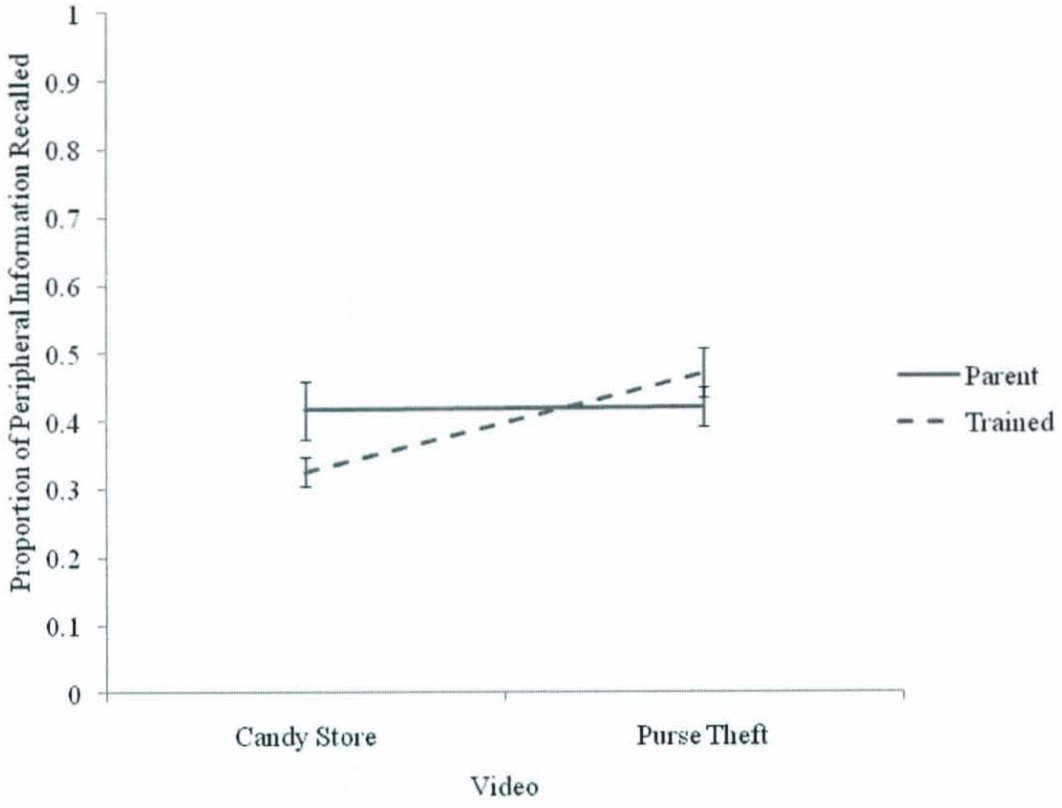


Figure 6. The proportion of peripheral information provided in the second immediate interview for each video and initial interviewer condition.
Error bars represent standard errors.

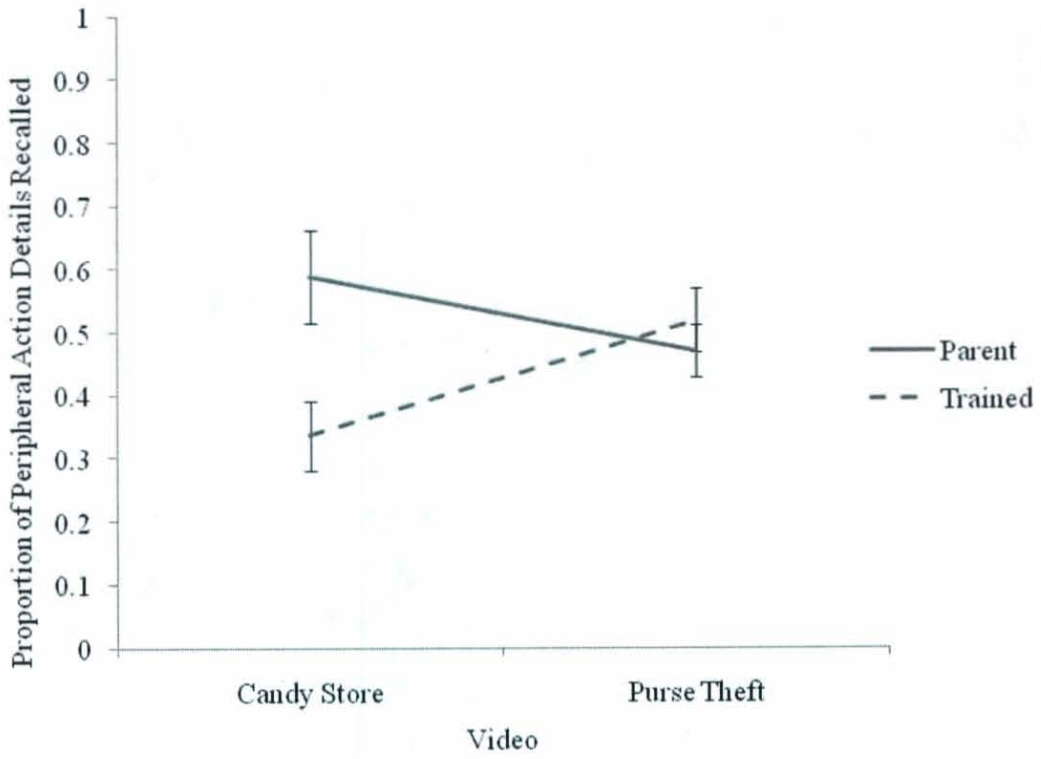


Figure 7. The proportion of peripheral action details provided in the second immediate interview for each video and initial interviewer condition.
Error bars represent standard errors.

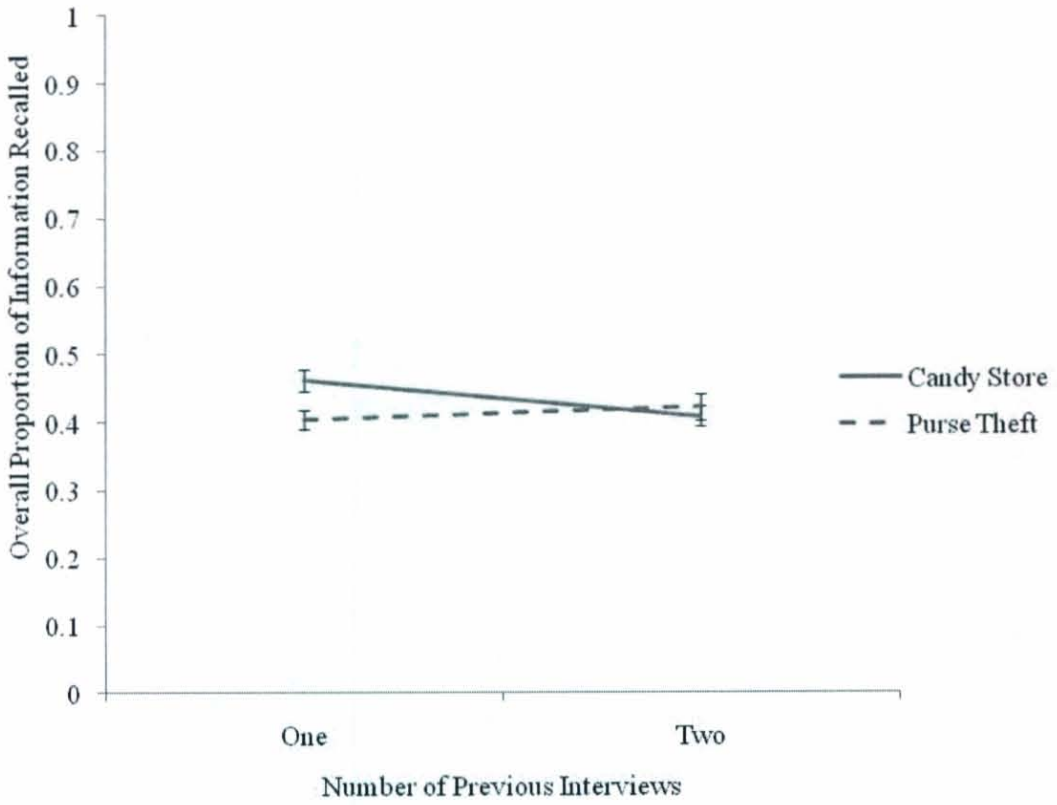


Figure 8. An across video comparison of the proportion of information provided by children who previously completed one versus two early interviews in the one-week follow-up interview.
Error bars represent standard errors.

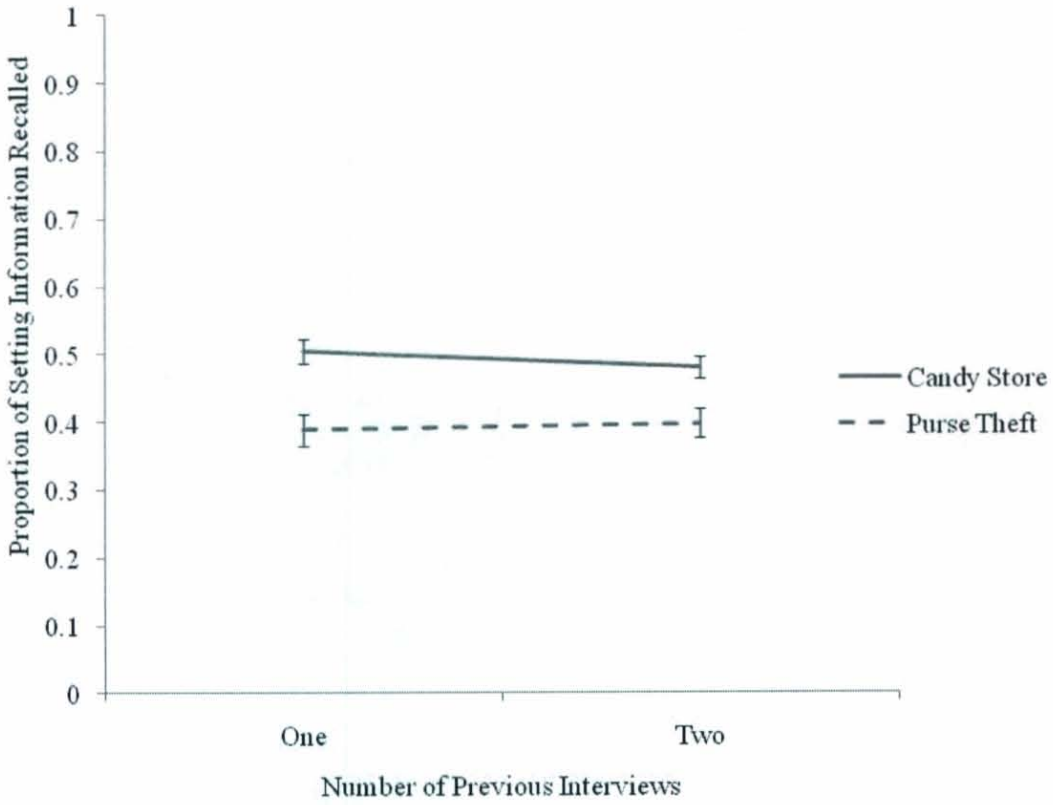


Figure 9. An across video comparison of the proportion of setting information provided by children who previously completed one versus two early interviews in the one-week follow-up interview.
Error bars represent standard errors.

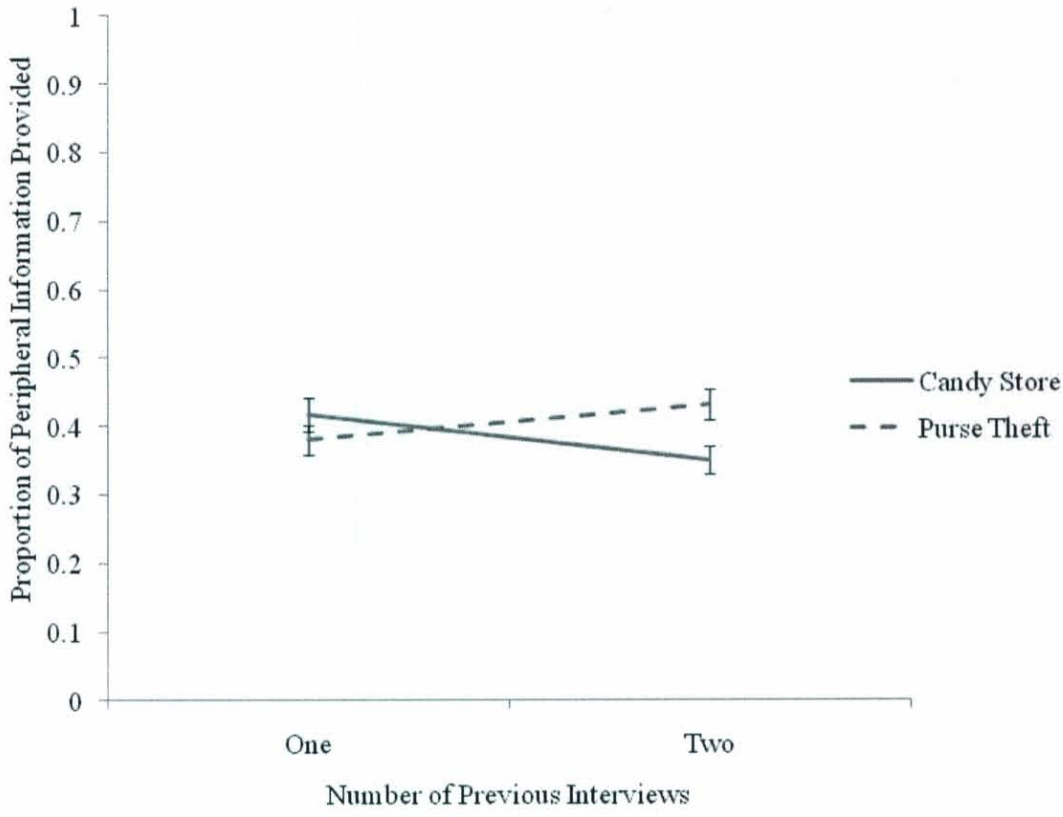


Figure 10. An across video comparison of the proportion of peripheral information provided by children who previously completed one versus two early interviews in the one-week follow-up interview.
Error bars represent standard errors.

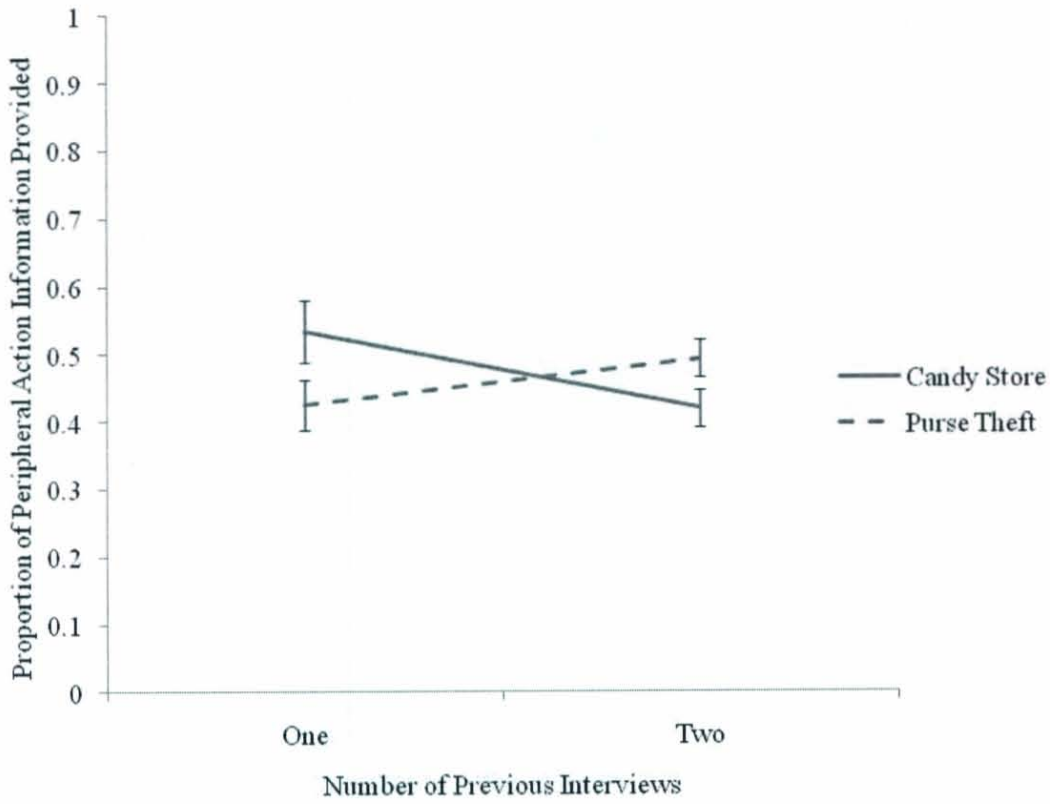


Figure 11. An across-video comparison of the proportion of peripheral action information provided by children who previously completed one versus two early interviews in the one-week follow-up interview.
Error bars represent standard errors.

Appendices

Appendix A
Child Interview Script

Prior to asking the children any questions about the video the interviewer will introduce herself, explain to the child that she is interested in knowing what the child saw in the video and ask the child to give his or her first name and age. Only then will she begin to ask the child questions about the video. The interview will largely be child directed.

What did you see in the video?

This will be followed up with utterances of what else do you remember until the child cannot supply any additional information. If the child does not mention anything say to the child I heard you saw someone take something, tell me about it.

Where did it happen?

Describe the place where it happened?

This can be followed up with utterances of what else do you remember about where it happened until the child cannot supply any additional information.

Was the person who took something a man or a woman?

What did the person look like?

Followed up with what else can you remember about what the person looked like until no additional information is being provided.

What was the person wearing?

Followed up with what else can you remember about what the person was wearing until no additional information is being provided.

Tell me everything that the person did.

Followed up with what else can you remember about what the person did until no additional information is being provided.

* If child mentions any items (e.g., object that was stolen or an article of clothing that the person was wearing probe for colour).

Finally, I know that you've told me a lot of things but before I go I'd like you to start at the beginning of the video and go to the end telling me everything you remember that happened.

Appendix B

Scoring sheets used to obtain the completeness of information provided

Information Provided – Setting – Candy Store Video

Detail	Provided (yes/no) If yes … (int. 1)	Provided (yes/no) If yes … (int. 2)	Provided (yes/no) If yes … (int. 3)
Store[a]	This is the place where the theft occurred so it needs to be considered.		
Stuffed Animals[a]	The stuffed animals are a predominant part of the video. They cannot be avoided.		
Candy[a]	These were the stolen items so they need to be considered.		
Shelves[b]	These were items that were present in the store that could have been talked about. They were not relevant to the theft.		
Green Walls[b]			
Cash Register[b]			
Counter[b]			
Doll Clothing[b]			
Price Tags[b]			
Plastic Bags[b]			

Note. The total number of possible descriptors was 10, with 3 central and 7 peripheral details. Thus, overall proportions were calculated by dividing by 10, central proportions were calculated by dividing by 3 and peripheral proportions were calculated by dividing by 7.

[a]These items were classified as central. Explanations are provided.

[b]These items were classified as peripheral. Explanations are provided.

Information Provided – Clerk – Candy Store Video

Detail	Provided (yes/no) If yes … (int. 1)	Provided (yes/no) If yes … (int. 2)	Provided (yes/no) If yes … (int. 3)
Male[a]			
White[a]			
Age[a]			
Shirt[b]			
Glasses[a]			
Facial Features[a]			
Dark Brown/Grey Hair[a]			
Dark blue/grey Pants[b]			

The decision on whether to classify a given piece of information as central or peripheral was based on whether the piece of information could be used to identify the person over time. Appearance items that were seen as unchangeable or not readily changeable were classified as central. Items that were readily changeable were classified as peripheral.

Note. The total number of possible descriptors was 8, with 6 central and 2 peripheral details. Thus, overall proportions were calculated by dividing by 8, central proportions were calculated by dividing by 6 and peripheral proportions were calculated by dividing by 2.

[a]These items were classified as central. Explanations are provided.

[b]These items were classified as peripheral. Explanations are provided.

Information Provided – Perpetrator – Candy Store Video

Detail	Provided (yes/no) If yes … (int. 1)	Provided (yes/no) If yes … (int. 2)	Provided (yes/no) If yes … (int. 3)
Female[a]			
White[a]			
Red Jacket[b]			
Short Hair[a]			
Brown/Dark Blonde Hair[a]			
Facial Features[a]			
Black Shirt[b]			
Blue Jeans[b]			
Purse[b]			
Jewelry[b]			
Makeup[b]			

The decision on whether to classify a given piece of information as central or peripheral was based on whether the piece of information could be used to identify the person over time. Appearance items that were seen as unchangeable or not readily changeable were classified as central. Items that were readily changeable were classified as peripheral.

Age[a]	
Height[a]	
Weight[a]	

Note. The total number of possible descriptors was 14, with 8 central and 6 peripheral details. Thus, overall proportions were calculated by dividing by 14, central proportions were calculated by dividing by 8 and peripheral proportions were calculated by dividing by 6.

[a]These items were classified as central. Explanations are provided.

[b]These items were classified as peripheral. Explanations are provided.

Information Provided – Action – Candy Store Video

Detail	Provided (yes/no) If yes … (int. 1)	Provided (yes/no) If yes … (int. 2)	Provided (yes/no) If yes … (int. 3)
Walks in[a]	The perpetrator needed to come into the store before she could steal anything.		
Looks around[a]	The perpetrator looked around the store to see what was happening and to determine what she wanted to take.		
Clerk looks at her[b]	At this stage the clerk is just saying hello. It has no relevance on the theft itself.		
Picks up toy[b]	She did not take the toy. Her intent toward the object cannot be determined.		
Puts toy back[b]			
Drops candy in purse[a]	This is the key part of the video.		
Looks at man[a]	She looked to see what the clerk was doing before she took the candy.		
Clerk stocking shelves[b]	What the clerk is doing specifically is not relevant to the theft itself.		
Woman walks out[a]	The perpetrator was in fact stealing because she left the store with the items.		
Clerk chases after her[b]	This was after the fact. It has no relevance on the theft.		

Note. The total number of possible descriptors was 10, with 5 central and 5 peripheral details. Thus, overall proportions were calculated by dividing by 10, central proportions

were calculated by dividing by 5 and peripheral proportions were calculated by dividing by 5.

[a]These items were classified as central. Explanations are provided.

[b]These items were classified as peripheral. Explanations are provided.

Information Provided – Setting – Purse Theft Video

Detail	Provided (yes/no) If yes … (int. 1)	Provided (yes/no) If yes … (int. 2)	Provided (yes/no) If yes … (int. 3)
School[a]	This is the place where the theft occurred so it needs to be considered.		
No Smoking Sign[b]	These are features that were present and could have been talked about. They were not relevant to the theft.		
Bricks[b]			
Signs in Hallway[b]			
Bench[a]	If the girl had not left her purse on the bench it could not have been stolen.		
Vending Machine[a]	The girl was at the vending machine and not watching her things when the theft occurred.		
Doors[b]	These are features that were present and could have been talked about. They were not relevant to the theft.		
Garbage cans[b]			
Hallway[a]	The perpetrator ran into the hallway to escape.		
Classroom in background[b]	These are features that were present and could have been talked about. They were not relevant to the theft.		
White walls[b]			

Staircase[b]	
Money[a]	These were the stolen items so they need to be considered.

Note. The total number of possible descriptors was 13, with 5 central and 8 peripheral details. Thus, overall proportions were calculated by dividing by 13, central proportions were calculated by dividing by 5 and peripheral proportions were calculated by dividing by 8.

[a]These items were classified as central. Explanations are provided.

[b]These items were classified as peripheral. Explanations are provided.

Information Provided – Perpetrator – Purse Theft Video

Detail	Provided (yes/no) If yes … (int. 1)	Provided (yes/no) If yes … (int. 2)	Provided (yes/no) If yes … (int. 3)
Male[a]			
Age[a]			
Dark Brown Hair[a]			
Facial Features[a]			
Black Shirt[b]			
Brown/Grey Hoodie[b]			
Blue Jeans[b]			
White Sneakers[b]			
Black bookbag[b]			
White[a]			
Height[a]			

The decision on whether to classify a given piece of information as central or peripheral was based on whether the piece of information could be used to identify the person over time. Appearance items that were seen as unchangeable or not readily changeable were classified as central. Items that were readily changeable were classified as peripheral.

Weight[a]	
Book[b]	

Note. The total number of possible descriptors was 13, with 7 central and 6 peripheral details. Thus, overall proportions were calculated by dividing by 13, central proportions were calculated by dividing by 7 and peripheral proportions were calculated by dividing by 6.

[a]These items were classified as central. Explanations are provided.

[b]These items were classified as peripheral. Explanations are provided.

Information Provided – Victim – Purse Theft Video

Detail	Provided (yes/no) If yes … (int. 1)	Provided (yes/no) If yes … (int. 2)	Provided (yes/no) If yes … (int. 3)
Female[a]			
White[a]			
Pink shirt[b]			
Jeans[b]			
Brown hair[a]			
Long hair[a]			
Glasses[a]			
Blue shoes[b]			
Purse[b]			
Book[b]			
Wallet[b]			

The decision on whether to classify a given piece of information as central or peripheral was based on whether the piece of information could be used to identify the person over time. Appearance items that were seen as unchangeable or not readily changeable were classified as central. Items that were readily changeable were classified as peripheral.

Height[a]	
Weight[a]	
Age[a]	

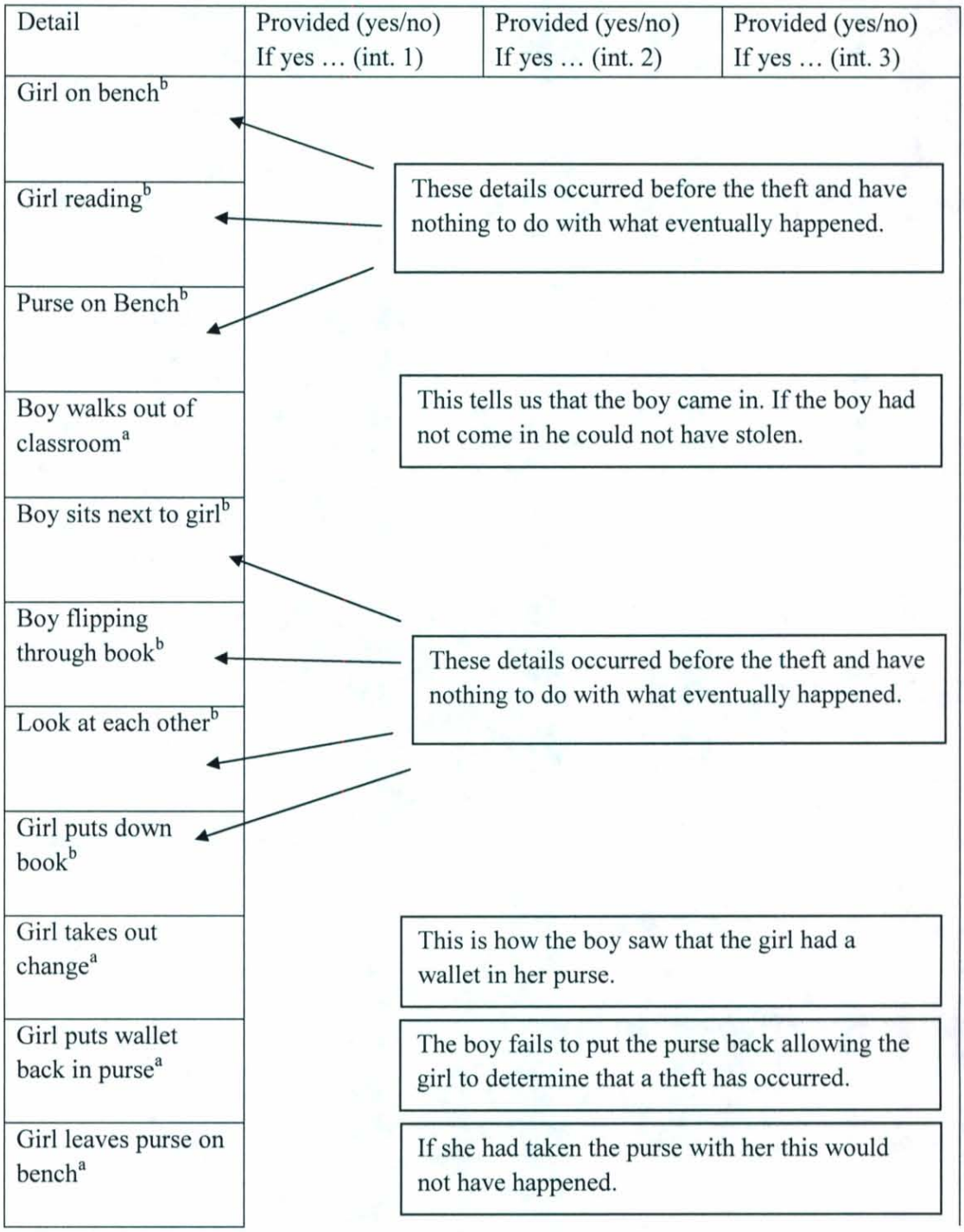
Note. The total number of possible descriptors was 14, with 8 central and 6 peripheral details. Thus, overall proportions were calculated by dividing by 14, central proportions were calculated by dividing by 8 and peripheral proportions were calculated by dividing by 6.

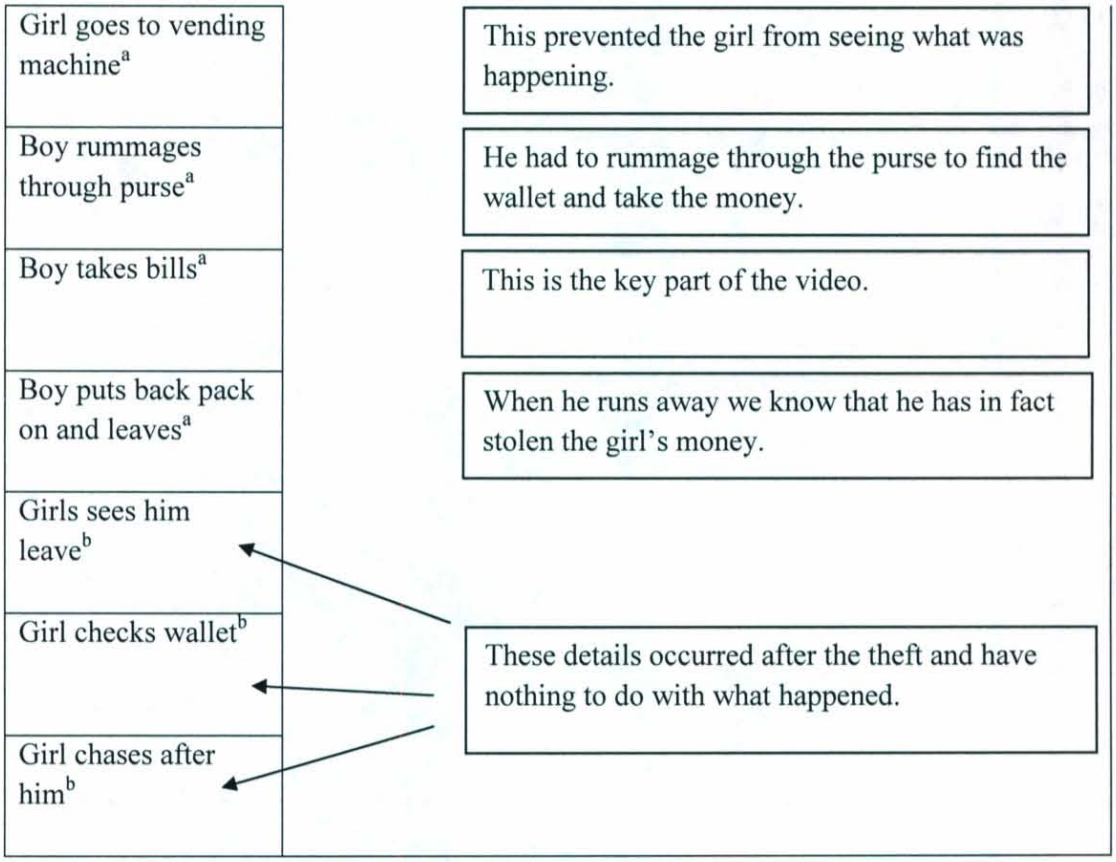
[a]These items were classified as central. Explanations are provided.

[b]These items were classified as peripheral. Explanations are provided.

Information Provided – Actions – Purse Theft Video

Detail	Provided (yes/no) If yes … (int. 1)	Provided (yes/no) If yes … (int. 2)	Provided (yes/no) If yes … (int. 3)
Girl on bench[b]			
Girl reading[b]			
Purse on Bench[b]			
Boy walks out of classroom[a]			
Boy sits next to girl[b]			
Boy flipping through book[b]			
Look at each other[b]			
Girl puts down book[b]			
Girl takes out change[a]			
Girl puts wallet back in purse[a]			
Girl leaves purse on bench[a]			





Note. The total number of possible descriptors was 18, with 8 central and 10 peripheral details. Thus, overall proportions were calculated by dividing by 18, central proportions were calculated by dividing by 8 and peripheral proportions were calculated by dividing by 10.

[a]These items were classified as central. Explanations are provided.

[b]These items were classified as peripheral. Explanations are provided.

Appendix C
Parent Letter

Dear Parent(s)/Guardian(s),

As researchers from Memorial University, we are conducting a project concerned with how parents and children talk about crime. This study is designed to examine how children talk about crime. The way children talk with their parents is different from the way they talk to other people like teachers or friends. We want to know the types of questions parents ask children and the things children tell parents about crime. We want to see if this is different from what they tell someone they are less familiar with. This is important because when children are victims or witnesses of crime it is important that they are able to provide as much information as they can remember and that the information they do remember is correct. If the information children tell parents is different, in a real situation children may not be telling police officers, judges, and lawyers everything they know.

Children will be shown a brief crime video involving a theft. The video has been designed for the purposes of the study and is similar to videos used in similar projects. It does not contain anything violent and should not be upsetting to your child. Furthermore, children who participate in the study will be informed that the video is in fact pretend. After watching the video children will be asked to talk about it on two different occasions. You will be asked to interview your child and then your child will be interviewed by a female research assistant. The interviews will happen on the day your child watches the video and one week later. The interviews will be audiotaped and transcribed. The research is important because it will tell us about children's abilities. This information can then be used to design procedures that help children who witness crime.

Because real-life crime happens when you don't expect it, we will not be telling children that we will be showing them a video of a crime. Thus, if you would like your child to participate, please do not talk to them about the events in question. We greatly appreciate you cooperation.

We would like to include you and your child in this project. Parent participation is not expected to take any longer than twenty minutes and parents who participate will have their name entered into a draw for one of two 100 dollar prizes. Results from our

previous research indicate that children enjoy their participation in this type of study. Children will be given an opportunity to ask questions.

Participation is completely voluntary, and children may choose not to participate at any point during the study. Participation by your child will be kept anonymous and strictly confidential. The information gathered will not appear in any records, will be kept in a locked cabinet until five years after study completion, will be seen only by the researchers involved in this study, and will be used solely for research purposes. Also note that responses will not contain your child's name or other identifying information.

To get an accurate picture of children's abilities, we would like to have as many children as possible participate. Please indicate on the attached form whether or not you can participate. We sincerely appreciate your cooperation. Finally, you will be permitted to listen to any interviews with your child should you wish to do so and you can ask to receive a letter describing the general results of the study once it is completed. Should you have any questions or comments about this research, please contact Kelly Warren (xxx-xxxx) or Dr. Carole Peterson (xxx-xxxx).

The proposal for this research has been approved by the Interdisciplinary Committee on Ethics in Human Research at Memorial University. If you have ethical concerns about the research (such as the way you have been treated or your rights as a participant), you may contact the Chairperson of the ICEHR at icehr@mun.ca or by telephone at xxx-xxxx.

Yours sincerely,

Kelly Warren

Psychology Department
Memorial University of Newfoundland

CONSENT FORM

(Please return to teacher)

I have read and understood the request for myself and my son/daughter to participate in the study described about how children talk about crime.

I have discussed this with my son/daughter and

_____ I **would like to participate** in the study with my child. I understand that I will be asked to talk to my child about a video he/she has seen and that information I provide will be anonymous. I understand that my participation is voluntary and that I am free to withdraw from the study at any point in time. I understand that I can request a letter describing the general results at the end of the study. Any inquiries I may have will be fully answered by the principal investigator.

_____ I **do not give permission** for my child to participate in this study.

Name of Child (please print): _____

Name of Parent/Guardian (please print): _____

Signature of Parent/Guardian: _____

Date: _____

Telephone Number: _____

Ethics Approval: The proposal for this research has been approved by the Interdisciplinary Committee on Ethics in Human Research at Memorial University. If you have ethical concerns about the research (such as the way you have been treated or your rights as a participant), you may contact the Chairperson of the ICEHR at icehr@mun.ca or by telephone at xxx-xxxx.

Appendix D
Schoolboard Request

Dear xxxxx,

Nearly every day we hear about children who are exposed to criminal events either as witnesses or as victims. As a consequence, these children may be required to talk to police officers, judges, and lawyers about the experience. A great deal of research has been devoted toward learning about conversations children have with legal personnel. However, what has largely been ignored is the conversation children have with parents, often the first line of communication for children. We believe that children may talk with their parents differently than they talk with legal personnel. We are interested in determining the types of questions parents ask children and the things children tell parents and other adults about crime. This is important because when children are victims or witnesses of crime it is important that they are able to provide as much information as they can remember and that the information they do remember is correct. If the information children tell parents is different, in a real situation children may not be telling police officers, judges, and lawyers everything they know.

We are requesting your permission to allow us to recruit children and parents in the Eastern School District to participate in our project. Children with parental consent will be shown a brief crime video (90 seconds) involving a theft. The video has been designed for the purposes of the study and is similar to videos used in similar projects. It does not contain anything violent and should not be upsetting to the children. Furthermore, children who participate in the study will be informed that the video is in fact pretend. After watching the video children will be asked to talk about it on two different occasions. If parents are interested in participating, they will be asked to talk to their child and then the child will be interviewed by a female research assistant. If parents are not interested but are willing to permit their child to participate, the child will be interviewed by two different female research assistants. The interviews will happen on the day children watch the video and one week later. The interviews will be audiotaped and transcribed. The research is important because it will tell us about children's abilities. This information can then be used to design procedures that help children who witness crime.

If parents agree to participate the project will not take place at the school but instead at a location convenient to the parent, outside of school time. If children are participating without their parent we would like to conduct the project at the children's schools.

Children would participate one on one and participation is not expected to last any longer than ten minutes per child. We understand the value of class time and will conduct the project at a time that is convenient to school principals and teachers. If necessary, children can be tested during recess and lunch times or where applicable during after school programs.

Because real-life crime happens when you don't expect it, we will not be telling children that we will be showing them a video of a crime. Thus, we would appreciate it if school personnel do not discuss the events in question with children. We greatly appreciate your cooperation. Should you have any questions or comments about this research, please contact Kelly Warren (xxx-xxxx) or Dr. Carole Peterson (xxx-xxxx).

The proposal for this research has been approved by the Interdisciplinary Committee on Ethics in Human Research at Memorial University. If you have ethical concerns about the research (such as the way you have been treated or your rights as a participant), you may contact the Chairperson of the ICEHR at icehr@mun.ca or by telephone at xxx-xxxx.

Yours sincerely,

Kelly Warren
Psychology Department
Memorial University of Newfoundland

Appendix E
Principal Request

Dear xxxx,

Nearly every day we hear about children who are exposed to criminal events either as witnesses or as victims. As a consequence, these children may be required to talk to police officers, judges, and lawyers about the experience. A great deal of research has been devoted toward learning about conversations children have with legal personnel. However, what has largely been ignored is the conversation children have with parents, often the first line of communication for children. We believe that children may talk with their parents differently than they talk with legal personnel. We are interested in determining the types of questions parents ask children and the things children tell parents and other adults about crime. This is important because when children are victims or witnesses of crime it is important that they are able to provide as much information as they can remember and that the information they do remember is correct. If the information children tell parents is different, in a real situation children may not be telling police officers, judges, and lawyers everything they know.

I am requesting your permission to recruit parents of children attending your school. I would like to distribute parent letters of interest to children and have them returned to the school where I can pick them up. Parents are being asked to participate in a one-on-one telephone interview about how they think they would react if they thought their child was a victim of or witness to a crime. A copy of the parent letter of interest is attached.

If you have any questions about the project you can contact Kelly Warren at xxx-xxxx or or Dr. Carole Peterson (xxx-xxxx).

The proposal for this research has been approved by the Interdisciplinary Committee on Ethics in Human Research at Memorial University. If you have ethical concerns about the research (such as the way you have been treated or your rights as a participant), you may contact the Chairperson of the ICEHR at icehr@mun.ca or by telephone at 737-8368.

Yours sincerely,

Kelly Warren
Psychology Department
Memorial University of Newfoundland

Appendix F

Questions asked by Parents (R for video related, S for Safety related, U for completely unrelated information)

Question Type	Parent Interview
Open-Ended	
Yes/No	
Direct	
Statements	
Total	

Appendix G

Suggestibility Coding

Suggestions	Incorporation (yes/no) Interview 1	Incorporation (yes/no) Interview 2	Incorporation (yes/no) Interview 3

Appendix H

Proportion of Information Provided by Children Immediately Following the Video

	Category of information				
Condition	Actions	Perpetrator	Setting	Victim	Mean
Parent interviewer					
Candy store					
M	.37	.33	**.30**[c]	.16	.29
SD	.26	.19	.12	.15	.13
Purse theft					
M	.36	.35	**.16**[d]	.25	.29
SD	.20	.22	.10	.15	.14
Total					
M	**.37**[a]	**.34**[b]	**.23**[e]	.20	**.29**[f]
SD	.23	.20	.13	.16	.14
Trained interviewer					
Candy store					
M	.60	.34	**.45**[c]	.16	.41
SD	.18	.20	.11	.11	.09
Purse theft					
M	.52	.43	**.40**[d]	.27	.42
SD	.15	.12	.12	.13	.09
Total					
M	**.56**[a]	**.43**[b]	**.43**[e]	.22	**.42**[f]
SD	.17	.12	.12	.14	.09
Overall					
M	.46	.39	.33	.21	.36
SD	.22	.17	.16	.14	.13

Note. $N = 158$.

Means with the same superscripts are significantly different from each other at $p < .05$ or better. For ease of reading significant findings are in bold.

Appendix I

Proportion of Central Information Provided by Children Immediately Following the Video

	Category of information				
Condition	Actions	Perpetrator	Setting	Victim	Mean
Parent interviewer					
Candy store					
M	**.44**[a]	.39	**.64**[d]	.18	.37
SD	.28	.20	.26	.15	.13
Purse theft					
M	**.49**[b]	.38	**.41**[e]	.20	.36
SD	.23	.20	.22	.12	.13
Total					
M	**.47**[c]	.38	**.52**[f]	.19	**.37**[g]
SD	.26	.20	.27	.13	.13
Trained interviewer					
Candy store					
M	**.72**[a]	.41	**.82**[d]	.19	.47
SD	.19	.16	.16	.08	.07
Purse theft					
M	**.61**[b]	.29	**.75**[e]	.17	.42
SD	.18	.11	.17	.09	.09
Total					
M	**.67**[c]	.35	**.78**[f]	.18	**.44**[g]
SD	.19	.15	.17	.09	.08
Overall					
M	.56	.37	.65	.19	.41
SD	.25	.17	.26	.11	.12

Note. $N = 158$.

Means with the same superscripts are significantly different from each other at $p < .05$ or better. For ease of reading significant findings are in bold.

Appendix J

Proportion of Peripheral Information Provided by Children Immediately Following the Video

	Category of information				
Condition	Actions	Perpetrator	Setting	Victim	Mean
Parent interviewer					
Candy store					
M	.30	.28	.07	.07	.20
SD	.29	.21	.11	.20	.15
Purse theft					
M	.28	.32	.02	.31	.23
SD	.24	.32	.05	.26	.17
Total					
M	**.29**[a]	**.30**[b]	**.04**[c]	.19	**.22**[d]
SD	.26	.27	.09	.26	.16
Trained interviewer					
Candy store					
M	.47	.45	.21	.08	.34
SD	.27	.16	.17	.24	.14
Purse theft					
M	.47	.62	.18	.41	.43
SD	.17	.20	.14	.20	.12
Total					
M	**.47**[a]	**.53**[b]	**.19**[c]	.25	**.39**[d]
SD	.22	.20	.16	.28	.13
Overall					
M	.38	.42	.12	.22	.30
SD	.26	.27	.15	.27	.17

Note. $N = 158$.

Means with the same superscripts are significantly different from each other at $p < .05$ or better. For ease of reading significant findings are in bold.

Appendix K

Proportion of Accurate Information Provided by Children Immediately Following the Video

	Category of information				
Condition	Actions	Perpetrator	Setting	Victim	Mean
Parent interviewer					
Candy store					
M	.99	.83	.81	.95	.86
SD	.04	.23	.19	.17	.14
Purse theft					
M	.97	.75	.85	.89	.88
SD	.08	.18	.28	.15	.07
Total					
M	.98	.79	.83	.92	.87
SD	.07	.21	.24	.16	.11
Trained interviewer					
Candy store					
M	.99	.78	.84	.97	.87
SD	.05	.12	.15	.10	.07
Purse theft					
M	.97	.84	.82	.96	.91
SD	.10	.15	.16	.11	.07
Total					
M	.98	.81	.83	.96	.89
SD	.08	.14	.16	.10	.07
Overall					
M	.98	.80	.83	.94	.88
SD	.07	.18	.20	.13	.09

Note. $N = 158$.

Appendix L

Proportion of Accurate Central Information Provided by Children Immediately Following the Video

Condition	Category of information				
	Actions	Perpetrator	Setting	Victim	Mean
Parent interviewer					
Candy store					
M	.99	.85	.79	1.00	.88
SD	.03	.24	.23	.00	.13
Purse theft					
M	.97	.75	.65	**.85**[b]	.81
SD	.08	.25	.32	.22	.14
Total					
M	.98	**.80**[a]	.72	**.92**[c]	**.84**[d]
SD	.06	.25	.28	.18	.14
Trained interviewer					
Candy store					
M	.99	.91	.80	.99	.91
SD	.05	.16	.17	.08	.07
Purse theft					
M	.97	.87	.70	**1.00**[b]	.87
SD	.10	.19	.14	.00	.07
Total					
M	.98	**.89**[a]	.75	**.99**[c]	**.89**[d]
SD	.08	.18	.17	.06	.07
Overall					
M	.98	.84	.74	.96	.87
SD	.07	.22	.23	.13	.11

Note. $N = 158$.

Means with the same superscripts are significantly different from each other at $p < .05$ or better. For ease of reading significant findings are in bold.

Appendix M

Proportion of Accurate Peripheral Information Provided by Children Immediately Following the Video

	Category of information				
Condition	Actions	Perpetrator	Setting	Victim	Mean
Parent interviewer					
Candy store					
M	.96	.82	.92	.20	.85
SD	.19	.29	.28	.45	.24
Purse theft					
M	.99	.71	1.00	.96	.92
SD	.03	.31	.00	.10	.11
Total					
M	.98	.77	.94	.86	.89
SD	.13	.30	.24	.31	.19
Trained interviewer					
Candy store					
M	.98	.68	.95	.63	.82
SD	.09	.22	.14	.48	.14
Purse theft					
M	.99	.84	.87	.93	.92
SD	.05	.19	.26	.18	.09
Total					
M	.98	.76	.91	.90	.87
SD	.07	.22	.22	.23	.12
Overall					
M	.98	.77	.92	.88	.88
SD	.10	.25	.22	.27	.16

Note. $N = 158$.

Appendix N

Proportion of Information Provided by Children in the Second Immediate Interview Condition

	Category of information				
Condition	Actions	Perpetrator	Setting	Victim	Mean
Parent initial					
Candy store					
M	.66	.45	.51	.22	.46
SD	.23	.16	.17	.19	.14
Purse theft					
M	.53	.46	.43	.25	.43
SD	.14	.12	.12	.10	.07
Total					
M	.59	.46	.47	.23	.45
SD	.20	.14	.15	.15	.11
Trained interviewer initial					
Candy store					
M	.54	.43	.44	.17	.40
SD	.16	.11	.13	.12	.06
Purse theft					
M	.57	.48	.42	.26	.45
SD	.17	.13	.15	.10	.12
Total					
M	.55	.46	.43	.22	.43
SD	.17	.12	.14	.12	.10
Overall					
M	.57	.46	.45	.22	.44
SD	.18	.13	.14	.14	.10

Note. $N = 78$.

Appendix O

Proportion of Central Information Provided by Children in the Second Immediate Interview Condition

Condition	Category of information				
	Actions	Perpetrator	Setting	Victim	Mean
Parent initial					
Candy store					
M	.73	.44	.83	.23	.50
SD	.27	.18	.14	.16	.12
Purse theft					
M	.62	.35	.72	.17	.45
SD	.12	.13	.20	.12	.06
Total					
M	.67	**.40**[a]	**.77**[b]	**.20**[c]	.47
SD	.21	.16	.18	.14	.09
Trained interviewer initial					
Candy store					
M	.74	.35	.83	.19	.47
SD	.16	.11	.16	.12	.06
Purse theft					
M	.64	.32	.77	.16	.43
SD	.13	.10	.17	.08	.08
Total					
M	.69	**.33**[a]	**.80**[b]	**.17**[c]	.45
SD	.16	.11	.17	.10	.07
Overall					
M	.68	.36	.79	.19	.46
SD	.18	.14	.18	.12	.08

Note. $N = 78$.

Means with the same superscripts are significantly different from each other at $p < .05$ or better. For ease of reading significant findings are in bold.

Appendix P

Proportion of Peripheral Information Provided by Children in the Second Immediate Interview Condition

	Category of information				
Condition	Actions	Perpetrator	Setting	Victim	Mean
Parent initial					
Candy store					
M	**.59**[a]	.45	.30	.18	.42
SD	.31	.22	.22	.34	.18
Purse theft					
M	.47	.62	.16	.36	.42
SD	.19	.21	.15	.15	.13
Total					
M	.53	.54	.23	.27	.42
SD	.26	.23	.20	.27	.16
Trained interviewer initial					
Candy store					
M	**.34**[a]	.51	.24	.08	.33
SD	.24	.14	.18	.26	.09
Purse theft					
M	.52	.70	.19	.41	.47
SD	.23	.22	.11	.21	.16
Total					
M	.43	.61	.22	.26	.41
SD	.25	.20	.15	.28	.15
Overall					
M	.48	.57	.22	.27	.41
SD	.26	.22	.18	.27	.15

Note. $N = 78$.

Means with the same superscripts are significantly different from each other at $p < .05$ or better. For ease of reading significant findings are in bold.

Appendix Q

Proportion of Accurate Information Provided by Children in the Second Immediate Interview Condition

	Category of information				
Condition	Actions	Perpetrator	Setting	Victim	Mean
Parent initial					
Candy store					
M	.98	.81	.73	.93	.85
SD	.05	.15	.20	.15	.11
Purse theft					
M	.96	.84	.84	.99	.90
SD	.09	.18	.17	.03	.08
Total					
M	.97	**.82**[a]	.79	.96	.88
SD	.08	.17	.19	.11	.10
Trained interviewer initial					
Candy store					
M	1.00	.74	.81	.96	.84
SD	.00	.16	.17	.17	.10
Purse theft					
M	.99	.72	.75	.97	.87
SD	.03	.20	.18	.08	.08
Total					
M	1.00	**.73**[a]	.78	.97	.86
SD	.02	.18	.18	.13	.09
Overall					
M	.98	.78	.78	.96	.87
SD	.06	.18	.18	.12	.09

Note. $N = 78$.

Means with the same superscripts are significantly different from each other at $p < .05$ or better. For ease of reading significant findings are in bold.

Appendix R

Proportion of Accurate Central Information Provided by Children in the Second Immediate Interview Condition

	Category of information				
Condition	Actions	Perpetrator	Setting	Victim	Mean
Parent initial					
Candy store					
M	1.00	.78	.72	.99	.86
SD	.00	.26	.21	.06	.11
Purse theft					
M	.96	.90	.71	.99	.86
SD	.12	.19	.16	.04	.09
Total					
M	.98	.84	.71	.99	.86
SD	.09	.23	.18	.05	.10
Trained interviewer initial					
Candy store					
M	1.00	.92	.77	1.00	.90
SD	.00	.17	.22	.00	.10
Purse theft					
M	1.00	.86	.60	1.00	.86
SD	.00	.18	.22	.00	.07
Total					
M	1.00	.89	.68	1.00	.88
SD	.00	.18	.23	.00	.08
Overall					
M	.99	.87	.70	.99	.87
SD	.06	.21	.21	.04	.09

Note. $N = 78$.

Appendix S

Proportion of Accurate Peripheral Information Provided by Children in the Second Immediate Interview Condition

	Category of information				
Condition	Actions	Perpetrator	Setting	Victim	Mean
Parent initial					
Candy store					
M	.97	.82	.70	.30	.82
SD	.09	.21	.36	.45	.16
Purse theft					
M	.97	.82	.86	1.00	.91
SD	.07	.22	.29	.00	.09
Total					
M	.97	.82	.79	.86	**.87**[a]
SD	.08	.21	.33	.34	.13
Trained interviewer initial					
Candy store					
M	1.00	.62	.97	.50	.74
SD	.00	.22	.10	.71	.16
Purse theft					
M	.98	.64	.83	.96	.85
SD	.05	.27	.33	.13	.10
Total					
M	.99	.63	.89	.92	**.80**[a]
SD	.03	.24	.27	.24	.14
Overall					
M	.98	.72	.84	.89	.83
SD	.06	.24	.30	.30	.14

Note. $N = 78$.

Means with the same superscripts are significantly different from each other at $p < .05$ or better. For ease of reading significant findings are in bold.

Appendix T

Proportion of Information Provided by Children in the One-Week Follow-up Interview

	Category of information				
Condition	Actions	Perpetrator	Setting	Victim	Mean
Parent initial					
Candy store					
M	.66	.44	.51	.18	.45
SD	.15	.14	.13	.14	.10
Purse theft					
M	.52	.41	.37	.25	.40
SD	.18	.14	.13	.12	.11
Total					
M	.59	.43	.44	.21	.43
SD	.17	.14	.15	.13	.11
Trained interviewer initial					
Candy store					
M	.57	.44	.47	.19	.42
SD	.20	.12	.13	.17	.10
Purse theft					
M	.52	.44	.41	.27	.43
SD	.14	.15	.11	.15	.10
Total					
M	.54	.44	.44	.23	.42
SD	.17	.13	.12	.17	.10
Overall					
M	.57	.43	.44	.22	.43
SD	.17	.14	.13	.15	.10

Note. $N = 158$.

Appendix U

Proportion of Central Information Provided by Children in the One-Week Follow-up Interview

Condition	Category of information				
	Actions	Perpetrator	Setting	Victim	Mean
Parent initial					
Candy store					
M	.77	.42	.83	.21	.49
SD	.16	.13	.14	.12	.07
Purse theft					
M	.61	.33	.72	.16	.42
SD	.20	.13	.20	.08	.11
Total					
M	.69	.38	.77	.18	.46
SD	.20	.13	.18	.10	.10
Trained interviewer initial					
Candy store					
M	.73	.38	.83	.20	.47
SD	.19	.14	.16	.14	.09
Purse theft					
M	.60	.30	.77	.17	.42
SD	.14	.11	.17	.11	.09
Total					
M	.67	.34	.80	.19	.45
SD	.18	.13	.17	.13	.09
Overall					
M	.68	.36	.79	.19	.45
SD	.19	.13	.18	.11	.10

Note. $N = 158$.

Appendix V

Proportion of Peripheral Information Provided by Children in the One-Week Follow-up Interview

	Category of information				
Condition	Actions	Perpetrator	Setting	Victim	Mean
Parent initial					
Candy store					
M	.55	.47	.30	.09	.40
SD	.22	.18	.22	.25	.15
Purse theft					
M	.46	.51	.16	.37	.39
SD	.19	.26	.15	.21	.14
Total					
M	**.50**[a]	**.49**[b]	.23	.23	.40
SD	.21	.23	.20	.27	.14
Trained interviewer initial					
Candy store					
M	.41	.51	.24	.15	.37
SD	.29	.17	.18	.33	.14
Purse theft					
M	.46	.63	.19	.39	.43
SD	.18	.26	.11	.22	.13
Total					
M	**.44**[a]	**.57**[b]	.22	.27	.40
SD	.24	.22	.15	.30	.14
Overall					
M	.47	.53	.22	.25	.40
SD	.23	.23	.18	.29	.14

Note. $N = 158$.

Means with the same superscripts are significantly different from each other at $p < .05$ or better. For ease of reading significant findings are in bold.

Appendix W

Proportion of Accurate Information Provided by Children in the One-Week Follow-up Interview

Condition	Category of information				
	Actions	Perpetrator	Setting	Victim	Mean
Parent initial					
Candy store					
M	.97	.74	.79	.96	.84
SD	.06	.18	.15	.15	.09
Purse theft					
M	.97	.78	.81	.96	.89
SD	.07	.16	.20	.10	.08
Total					
M	.97	.76	.80	.96	.88
SD	.07	.17	.17	.13	.08
Trained interviewer initial					
Candy store					
M	.97	.67	.79	.91	.80
SD	.07	.18	.17	.18	.10
Purse theft					
M	.96	.81	.77	.91	.87
SD	.09	.17	.20	.15	.09
Total					
M	.97	.74	.78	.91	.84
SD	.08	.19	.18	.16	.10
Overall					
M	.97	.75	.79	.94	.85
SD	.07	.18	.18	.15	.09

Note. $N = 158$.

Appendix X

Proportion of Accurate Central Information Provided by Children in the One-Week Follow-up Interview

	Category of information				
Condition	Actions	Perpetrator	Setting	Victim	Mean
Parent initial					
Candy store					
M	.77	.81	.74	.99	.88
SD	.16	.20	.19	.08	.10
Purse theft					
M	.61	.87	.70	.96	.87
SD	.20	.21	.16	.12	.09
Total					
M	.69	.84	.72	.97	.87
SD	.20	.20	.18	.10	.09
Trained interviewer initial					
Candy store					
M	.73	.85	.74	.99	.86
SD	.19	.18	.22	.04	.09
Purse theft					
M	.60	.86	.67	.97	.84
SD	.14	.20	.19	.10	.09
Total					
M	.67	.85	.71	.98	.85
SD	.18	.19	.21	.08	.09
Overall					
M	.68	.85	.71	.98	.86
SD	.19	.20	.19	.09	.09

Note. $N = 158$

Appendix Y

Proportion of Accurate Peripheral Information Provided by Children in the One-Week Follow-up Interview

	Category of information				
Condition	Actions	Perpetrator	Setting	Victim	Mean
Parent initial					
Candy store					
M	.94	.67	.89	.20	.79
SD	.15	.29	.18	.45	.18
Purse theft					
M	.98	.71	.16	.98	.88
SD	.09	.24	.15	.07	.09
Total					
M	.96	.69	.23	.88	**.84**[a]
SD	.12	.27	.20	.30	.15
Trained interviewer initial					
Candy store					
M	.96	.54	.24	.13	.70
SD	.11	.31	.18	.23	.20
Purse theft					
M	.94	.78	.19	.92	.88
SD	.13	.25	.11	.16	.10
Total					
M	.95	.66	.22	.78	**.79**[a]
SD	.12	.30	.15	.35	.18
Overall					
M	.96	.67	.22	.83	.81
SD	.12	.29	.18	.33	.17

Note. $N = 158$.

Means with the same superscripts are significantly different from each other at $p < .05$ or better. For ease of reading significant findings are in bold.