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Recognizing Developmental Differences

Running Head: RECOGNIZING DEVELOPMENTAL DIFFERENCES

The Child Witness of Sexual Abuse: Recognizing Developmental Differences and Creating a Forum for Eliciting Accurate Testimony

by

Laura Park, M.A.

Wilfrid Laurier University

Submitted to the Faculty of Graduate Studies and Research

in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

Carleton University

Ottawa, Ontario

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Faculty of Graduate Studies and Research
Acceptance of the thesis:

The Child Witness of Sexual Abuse: Recognizing Developmental Differences and
Creating a Forum for Eliciting Accurate Testimony

submitted by

Laura Park

in Partial fulfillment of the requirements for

the degree of Doctor of Philosophy

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Recognizing Developmental Differences

Abstract

Court records of 58 examples of child sexual abuse testimony were examined for sensitivity of the court in acknowledging the differing developmental capabilities between child and adult witnesses. Children were found to be asked developmentally inappropriate questions during competency assessments and direct- and cross-examinations that either failed to respect the fact that children are not responsible for their sexuality by definition of being a child, or exceeded the children's cognitive threshold of comprehension. In addition, two sessions were conducted to investigate whether eliciting an accurate response from a child is a function of the developmental appropriateness of the question posed. Ninety children aged 7 to 11 and eighteen adults between the ages of 21 and 50 participated in a mock competency assessment, preliminary hearing, and trial. The small sample of adults was included to provide a benchmark against which children's capacity to answer leading as well as developmentally appropriate and inappropriate questions could be compared. Results of the mock competency assessment revealed that the requirements to provide sworn testimony (e.g., defining an oath and/or solemn affirmation) were beyond the cognitive capabilities of the child participants, illustrating the developmental inappropriateness of the competency assessment procedure. The results of the mock courtroom examination periods, held 6 to 8 weeks apart, indicated that children had difficulty providing accurate responses to questions that were leading in nature or that required cognitive skills the children had not yet developed (e.g., providing an estimate of time in seconds). However, the children had little difficulty providing accurate responses

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to questions that matched their developmental level. In contrast, the adults provided highly accurate responses regardless of whether the question was developmentally appropriate, leading, or required an estimate of time in seconds. The Canadian legal system fails justice to the extent that it holds children responsible for providing accurate testimony, but fails to ensure that procedures are used in the courtroom which recognize the developmental capabilities and the nonsexual status of child witnesses.

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**The Child Witness of Sexual Abuse: Recognizing Developmental
Differences and Creating a Forum for
Eliciting Accurate Testimony**

Child sexual abuse was an unacknowledged social problem in Canada until the early 1980s when growing awareness of the issue was reinforced by the pioneering Badgley Committee report, which indicated that every Canadian child was at risk of being sexually abused (Badgley, 1984). In fact, the Badgley Committee's National Population Survey which consisted of a random sample of over 2000 adults and investigated whether these adults had been victims of unwanted sexual contact or non-contact sexual acts, such as exposure, revealed that one third of the male respondents and one half of the female respondents had been victimized before adulthood. Subsequent prevalence studies in the United States have revealed that anywhere from 32% to 27% of the female respondents and 16% to 13% of the male respondents have reported a history of contact sexual abuse (Elliott & Briere, 1995; Finkelhor, 1990).

Over the past two decades, there has been an enormous increase in official reports of child sexual abuse across North America, with estimates of an increase as high as 2000% (Ceci & Bruck, 1995; Goodman & Bottoms, 1993). Researchers argue that these large figures reflect both mandated reporting and increased education and understanding of the prevalence of childhood sexual abuse (Biesenthal & Clement, 1992; Ceci & Bruck, 1995; Goodman & Bottoms, 1993; Perry & Wrightsman, 1991). Regardless of the reasons for the increased reporting, it is now clear that "the cases reported to the police and child protection authorities in the past were only a fraction of the actual incidence of child sexual abuse" (Bala, 1993, p.1; Ceci & Bruck, 1995).

In addition to documenting the extent of child sexual abuse in Canada, the Badgley Committee study (Badgley, 1984) revealed major systemic and legal deficiencies in the Canadian criminal justice system and made recommendations for improvement in parliamentary, legal, and societal arenas (Bala, 1993). In particular, the legal system was criticized for contributing to the perception that child sexual abuse was not widespread and that many of the cases were unfounded (Bala, 1992; 1993). As a consequence of this view, child sexual abuse victims rarely appeared as witnesses in court and their testimony was regarded with much skepticism in the trial process.

The Canadian Parliament responded to the criticism that the judicial system was unable to deal effectively with child witnesses in sexual abuse cases by enacting Bill C-15. Bill C-15 (1988) amended the Canadian Criminal Code and the Canada Evidence Act such that federal competency rules governing children were relaxed and the corroboration requirement for the testimony of the child witness abolished. As a result of these amendments, Bill C-15 opened the doors to child witnesses in cases of sexual abuse (Bala, 1992). Young children who could not previously give testimony because of age restrictions, or who were excluded from the courts because of lack of corroboration, could now testify. In addition, recognition of the difficulties that children experience in a courtroom setting, in particular fears of intimidation by the accused, was evident in Bill C-15. Mechanisms to protect child victims of sexual abuse giving evidence in criminal proceedings were introduced, such as the use of closed circuit television and screens (Section 442[2.1]) as well as videotaped disclosure and investigative interviews. These

avenues protected children from having to recount the details of their abuse in a full courtroom and before their abusers (Section 643.1).

Despite Bill C-15, enacted to achieve a fairer balance between the needs of the child victims and the accused; evidence law and the courtroom practices through which the law is served, still appear to be biased against children (Bala, 1991; 1992). Biesenthal and Clement (1992) and Hornick and Bolitho (1992) found that Bill C-15's reform procedures, designed to respect the needs of child witnesses on the stand, have not been widely implemented in Canadian courtrooms. Further, with more children taking the witness stand as a result of the removal of the sworn testimony and corroboration requirements, lawyers may view children as "open season" in the witness box.

As evidence, a longitudinal study following the experiences of 126 child witnesses found that defense attorneys in their verbal "attacks" often frightened and confused the children by taking advantage of the differing developmental maturities between children and adults (Sas, Hurley, Hatch, Malla, & Dick, 1993). Techniques employed by defense attorneys in this study included talking to the children in loud, sharp and accusatory voices, asking questions beyond the witnesses' comprehension, and insinuating that the children were responsible for the abuse. Furthermore, it was discovered that the children's developmental constraints often translated into an inability to understand court proceedings, legal terminology, and complex questions during their courtroom examinations. Ultimately, these limitations affected the credibility of their testimony (Sas et al., 1993).

According to Goodman and Helgeson (1988), the failure of the court to acknowledge the different developmental capabilities of child and adult witnesses prevents children from contributing accurate and complete evidence. The current Canadian justice system is designed for adults and remains largely unprepared to handle cases in which children act as witnesses (Bala, 1992; Renner, Alksnis, & Park, 1997). Victims are expected to undergo multiple court appearances; testimony must be detailed and complete; and delivered in the language used by adults (Brennan, 1995; Perry & Wrightsman, 1991). Although some concessions have been made in Canadian courtrooms, such as the use of tiny chairs and anatomically correct dolls, children continue to be expected to conform to “unrealistic, complicated questions that may confuse the most sophisticated of witnesses in the strange and often hostile environment of the courtroom” (Perry & Wrightsman, 1991, p.174; Sas et al., 1993; Saywitz, 1995).

“The credibility of the child as witness hinges not only upon the accuracy of the account given, but also upon whether the child is able to understand the questions posed” (Saywitz, 1995, p.114; Saywitz, Goodman, Nicholas, & Moan, 1991; Saywitz, Nathanson, & Snyder, 1993). This makes the Kafka-esque procedure of giving testimony considerably more demanding for the child (Smart, 1990). The law must reflect the reality that children are not miniature adults (Bala, 1991). Children maintain the same mental status when they are witnesses in the courtroom as they do when they are playing in the park. The Canadian legal system can no longer claim that reliable testimony can be ascertained from a legal process that pits the mind of a child against the advanced

cognitive development of an adult authority of the court (Bala, 1991; Park & Renner, 1998; Renner et al., 1997; Saywitz, 1995).

Critical Law Theory and Fundamental Justice

The process of discovering that the law and its legal practices are the very mechanisms preventing child witnesses from providing reliable testimony in the courtroom represents a branch of thinking known as critical law theory. Critical law theorists assert that the law does not deal effectively with many societal issues and may, in fact, create more problems for society than that which it was originally intended to address (Ryan, 1976). For example, recent research by Renner et al. (1997) provides a descriptive account of how the processes of selectivity and disparity in the legal system fail to accommodate the reality of women's and children's experiences of sexual violence.

Selectivity refers to the lack of uniformity in the application of the law such that only certain types of sexual assault cases actually reach the criminal justice system. In turn, disparity refers to the differential ways sexual assault cases are treated once they are selected into the criminal justice system. The concept of fairness in the justice process, as outlined in the Canadian Charter of Rights and Freedoms S15(1)¹, requires that there should be equality, not selectivity or disparity, in the way cases both enter the system and are treated within it (Renner et al., 1997).

¹ Every individual is equal before and under the law and has the right to equal protection and equal benefit of the law without discrimination and, in particular, without discrimination based on race, national or ethnic origin, colour, religion, sex, age, or mental or physical disability (S15(1)). Although this section of the charter is most commonly used in reference to affirmative action, the right to equality before and under the law also applies to one's treatment within the legal system.

Despite the fact that 94% of all incidents of sexual violence are never reported to the police (Statistics Canada, 1993), a small number of cases do enter into the legal system and go to trial. Renner et al. (1997), however, found that those cases of sexual violence that do go to trial are highly selected. For adult cases, those with violence and injury are disproportionately represented. In cases of sexual abuse against children, abuse by strangers and acquaintances are selected into the system (Renner et al., 1997). One implication of this “selectivity” is a misstatement of the true nature of sexual violence. This misrepresentation, in turn, contributes to the misconception that sexual violence against women and children is perpetrated by strangers and must necessarily include physical harm to the victim (Renner et al., 1997).

Police decision-making is the first official stage in the criminal justice process at which the filtering of sexual violence cases occurs (Renner et al., 1997; Roberts, 1990, 1996; Statistics Canada, 1993). Without a confession of the sexual abuse or compelling physical evidence, the police must weigh the merits of laying charges (Jaffe, Wilson, & Sas, 1987). More often than not, charges are not laid. A survey conducted by Statistics Canada (1993) found that just over half of the reports of sexual violence to police do not result in charges. Of those cases charged and entered into the trial process, only two-thirds end in conviction. Finally, only half of the offenders convicted of sexual violence are sentenced to prison terms (Statistics Canada, 1993). Furthermore, Roberts (1996) as well as Roberts and Grossman (1994) found that sexual violence cases are less likely to reach the courtroom than cases of non-sexual violence. A similar trend in the sentencing of sexual violence cases was found by Renner et al. (1997).

Comparing the severity of sentences handed down by the court as a way to objectively define what the Canadian courts consider serious, Renner et al. (1997) found that a “harsh” sentence, defined as two years or more, was given to only 13% of those convicted of sexually abusing a child, to 30% of those who sexually assault a woman, and 53% of those who commit robbery. For those convicted of child sexual abuse, 61% receive a “light” sentence of less than one year. These statistics serve as supporting evidence to the claims of women’s groups that male violence against women and children is not taken seriously by the courts.

Additional evidence to the claim that the legal system trivializes violence against women and children can be found in the process of “discounting.”

When a legal procedure is applied in a uniform way, but has a differential effect on an identifiable group of individuals, such that it provides them less protection, the force of that sanction is discounted. When a sanction is discounted, the offender who would otherwise bear the full burden of the legal doctrine has its impact reduced (Renner et al., 1997, p. 92).

It appears that the discounting of sentences for sexual offenders is inherent in our criminal justice system (Renner et al., 1997). According to Renner et al. (1997), the three factors that have been used by the courts to determine the severity of a sentence are “relationship,” “harm,” and “danger”. Specifically, the court tends to be lenient if there is a relationship between victim and offender, there is no visible physical harm suffered by the victim, and if the offender is not considered to be dangerous. These very factors are, however, the defining characteristics of sexual abuse: the offender is generally known to the victim [Sas et al. (1993) found that perpetrators were known to the victim in 91% of the child cases they examined], there is seldom physical harm [in child cases, the adult

misuses his or her authority to establish the sexual activity as secret through bribery, verbal intimidation, or direct threat (Klajner-Diamond, Wehrspann, & Steinhauer, 1987)], and most often the offender is an ordinary person (a social acquaintance, a teacher, a care giver, or “Uncle Joe”). Thus, the very features that define the status of a dependent child also appear to be the conditions used by the court to be lenient. The research of Renner et al. (1997) suggests that the legal process created to protect women and children also serves to minimize the seriousness of sex crimes and to inaccurately portray sexual violence against them.

It is a failure of fundamental justice, however, that the law contributes to the problem for which it is intended to be the official recourse (Renner, et al., 1997). In response to the absence of fundamental justice in the legal system, many researchers have highlighted the inadequacies and disadvantages of the legal process as they pertain to child witnesses of sexual violence (Bala, 1991; Perry, 1992; Spencer & Flin, 1990; Whitcomb, 1992; Whitcomb, Shapiro, & Stellwagen, 1985). As a result, these researchers have called for a bridge between legal and psychological scholarship to achieve a solution (King & Piper, 1990; Perry & Wrightsman, 1991). These two disciplines, however, are traditionally in opposition. For example,

The legal focus is on rule and order and on adjudication of disputed issues by reliance on legal precedent. In turn, psychologists do not resolve disputes by applying absolutist precedents, but rather by organizing and evaluating the empirical evidence supporting or refuting each side of the disagreement (Perry & Wrightsman, 1991, p. 200).

Similarly, McConkey (1992) perceives that the tension between the two disciplines results from the fact that “psychology discovers, describes, and explains human experience

through the logic and method of science. Whereas law is a practical art with a system of rules that serve as a means of social control and a focus on solving practical problems” (McConkey, 1992, p.3).

Despite the friction between legal and psychological principles, Perry and Wrightsman (1991) recommend that “triers of fact” and legal policy makers generate informed decisions, not based on legal precedent alone. Otherwise, mistaken legal policies and procedures may be the result. In turn, “the real social problems and needs may be ignored or misunderstood. As a result, the “cure” is worse than the disease”(Melton, 1987a, p. 346).

To prevent the inaccurate portrayal of reality and the contribution of the legal system to the problem for which it is intended to be the solution, scientific knowledge must be disseminated into the legal system and used in the service of public good as soon as it accumulates (Perry & Wrightsman, 1991). All too often, new and established findings by social scientists take far too long to be incorporated into statute or to be taken into account by judges in their case law (Loesel, 1992). Furthermore, social scientists must monitor and identify injustices in existing legal doctrine and instigate the political process of legal reform. Psychology and its scientific examination of the human experience is a powerful tool for achieving this end. The discipline looks to operational definitions that have measurable indicators as a means of evaluating inequality and advocating for change. “Psychology has the unique capacity within the social sciences for bringing the power of empirical research to bear on the theoretical conceptualization of important social issues” (Renner et al., 1997, p.101).

In summary, Renner et al. (1997) have illustrated that sexual violence is an issue of fundamental justice and that the study of fundamental justice involves the marriage of critical legal analysis and social science scholarship. Through this framework, research is not limited to viewing justice as how uniformly laws, procedures, and doctrines are administered. Rather, the veracity of the legal process in achieving the purposes for which it was intended can be tested, inconsistencies in the ideal can be identified, and solutions can be implemented that serve the end of greater fundamental justice.

Identified Problems with the Legal Response to
Child Sexual Abuse Witnesses

Part 1: Assessing Competency to Provide Sworn/Unsworn Evidence

The Badgley Commission (1984) noted that the laws of evidence were premised on the idea, long believed in the psychological and legal literature, that children are inherently unreliable witnesses and should not be permitted to testify in legal proceedings (Binet, 1900; Gross, 1910; Munsterberg, 1908; Varendock, 1911). As a result of these enduring beliefs about children's limited capacity to observe, recollect, and communicate the truth, many judges continue to abide by the rule that children must be formally declared competent before they can be sworn in, a precondition for testifying in court (Berliner & Barbieri, 1984; Bulkley, 1989; Goodman, 1984; Wilson, 1989). This emphasis on the ability of children to differentiate between truth and falsehood has served as an obstacle to the reception of children's evidence.

A Brief History of Canadian Competency Assessments

Early Common Law practice disqualified children's testimony based on the ability to understand the nature of an oath. In *R v. Braiser* (1779), the British High Court held that only sworn testimony was admissible, concluding that children who did not understand the oath were not competent to testify at trial. If the judge was of the opinion that children could be sworn in, they were permitted to testify after stating that if they told a lie under oath they would "go to hellfire." Unfortunately, the requirement to understand an oath in order to testify excluded so many children that "the competency rule came to be the number one rule preventing successful prosecution of child molestation cases" (Galante, 1984, p. 26). Most child victims, particularly those under the age of seven, were simply unable to satisfy the courts that they understood the meaning of an oath.

To remedy the exclusion of child witnesses, Section 16 of the Canada Evidence Act was enacted in 1893. This section permitted a "child of tender years," who does not "understand the nature of the oath," to give testimony that is not sworn. However, the judge had to be of the opinion that "the child was possessed of sufficient intelligence," and understood the duty to speak the truth, and "the evidence must be corroborated by some other material evidence." This latter requirement, however, continued to exclude children from testifying in great numbers as in many cases of sexual abuse, children are the only sources of vital information. Rarely can physical evidence or adult witnesses be found to corroborate a child's report of sexual abuse.

Current Law Pertaining to Competency Assessments

In 1988, Bill C-15 was enforced. The Bill no longer required corroboration of unsworn testimony and made it an offense for anyone to sexually exploit, interfere, or touch a person under 14 years of age. Section 16, however, still required the judge to make inquiry into the competency of a child to give evidence, based on the capacity to understand the meaning of an oath for sworn testimony, or to understand the meaning of promising to tell the truth for unsworn testimony. Thus, the court could convict solely on the basis of the unsworn evidence of a child, though a judge in a jury trial might also warn jurors when weighing the child's evidence to consider that it was not given under oath (e.g., *R. v Peterson*, 1996).

Despite the fact that children are no longer excluded from providing testimony because they do not understand the meaning of an oath and that their unsworn evidence can be used to convict the accused, concerns about children's abilities to communicate the truth in the courtroom continue to resonate within Bill C-15. These apprehensions are manifested in the continued judicial requirement to assess children's competency before trial while adults are exempted from this requisition. Therefore, the competency rule appears to serve as a source of discrimination in that only a child's truthfulness, not an adult's, must be reviewed in advance by judges in addition to their appreciation of the meaning of an oath. Yet, research suggests that the general presumption that children are more likely to provide unreliable and/or untruthful testimony than adults is ill conceived and empirically unfounded (Goodman, 1984; Goodman & Helgeson, 1988; Haugaard & Repucci, 1988; Melton, 1985; Melton, Limber, Jacobs, & Oberlander, 1992).

Children's Truthfulness

Historically, researchers believed that young children were incapable of lying because it required a level of cognitive sophistication beyond their abilities (Piaget, 1932/65). However, these earlier studies used paradigms that required a high level of cognitive ability such as pretending to like something that the children did not (Ceci, Leichtman, & Putnick, 1992). Piaget's (1932/65) belief that children were not capable of intentional deception until the ages of 10 or 11 seems to have underestimated younger children's abilities to engage in fabrication. Particularly since more recent studies have revealed that young children sometimes do lie, with full appreciation of the deception (Ceci & Bruck, 1995). For example, 88% of 3-year-olds who were instructed not to peek at a toy proceeded to peek. When asked if they had peeked, 62% said they did not peek even though they had done so (Lewis, Stranger, & Sullivan, 1989).

Piaget (1932/65) also asserted that until the age of 10 or 11, children possess a loose understanding of lying - one that encompasses swearing, false statements, and mistaken guesses. Yet, contemporary researchers have shown that children's knowledge and understanding of lying and truthfulness is indeed greater than is apparent from Piaget's research (Bussey, 1992; Peterson, Peterson, & Seeto, 1983). In a study in which children heard stories about other children who either lied or told the truth about a misdeed they had committed, second and fifth graders were more accurate in their identification of both lies and truthful statements than preschoolers, although the preschoolers' correct identifications were significantly above chance (Bussey, 1992).

These correct identifications were not affected by whether the lie was believed or not or whether the child's statement, lie or truth, met with punishment for the misdeed.

Recent research has sought to examine the specific conditions that may foster lying, particularly those relevant to cases of child sexual abuse. Five motivations to lie or tell the truth have been investigated and existing data show that not all motivations produce comparable levels of lying or truth-telling. For example, children are more likely to lie to avoid reprisal and avoid embarrassment than to sustain a game or gain rewards. The following section is based heavily on the work of Ceci and Bruck (1995).

Avoiding Punishment

From Piaget's perspective, children lie to avoid adult censure, rather than deliberately and consciously lying to deceive. However, Ceci and Bruck (1995) suggest that "children will lie about events when the operative motives are sufficiently salient, and they will do so at an earlier age than previously assumed" (p. 263). For instance, Stouthamer-Loeber (1987) found that mothers report that the most frequent motivation for their 4-year-olds to lie is to avoid punishment. Similar findings were also reported by Bussey (1992).

Sustaining a Game

Ceci, DeSimone, Putnick, Lee, and Toglia (1990) created an experiment in which preschoolers were asked to participate in a game of hiding the teacher's watch. The participants were told that the game was a secret and asked not to talk to anyone about it. However, when the teacher later asked what had happened to her watch, only 10% of the children lied to sustain the game. In turn, when a well-known adult coached children to lie

about playing with a toy, 35% of 2- to 8-year-olds lied to sustain the game (Tate, Warren & Hess, 1992). Thus, it appears that some children can be induced to tell a lie in the context of the game and the use of stronger coaching can result in higher rates of deception (Ceci & Bruck, 1995).

Keeping Promises

Pipe and Goodman (1991) suggest that children as young as three years of age can be convinced to omit details about transgressions if adults ask them to do so. For example, a study by Wilson and Pipe (1989) found that when an adult spilled ink on a pair of gloves and told the child that the adult would get into trouble if anyone found out, 42% of the five-year-olds kept the culprit a secret. Subsequent interviews 10 days and 2 months later revealed that 25% of the children continued to maintain ignorance regarding who spilled the ink.

If children will lie to protect a stranger, they might be even more inclined to lie to protect someone they love. For example, Bottoms, Goodman, Schwartz-Kenney, Sachsenmaier, and Thomas (1990) found that when mothers of three- and five-year-olds broke a Barbie doll, only 1 of the 49 children mentioned this to an interviewer when questioned about the incident. Subsequent specific and leading questions about the Barbie doll failed to elicit the secret from the children.

Personal Gain

The use of material rewards has been found to motivate some children to lie (Leekam, 1992). For example, Ceci, Leichtman, Putnick, and Nightingale (1993) found that over 50% of the nursery school participants in their study falsely claimed that they

had won a game in order to obtain a prize. Similarly, Pettit, Fegan, and Howie (1990) found that although 7 children were absent from school on the day of their experiment, 6 of the 7 children claimed they were present in order to obtain a prize.

Avoiding Embarrassment

Guilt, shame, and pride are also powerful motivators for lying. Although children prior to the age of 7 appear to be inferior to older children at appreciating self-regulatory states such as a sense of pride resulting from telling the truth (Bussey, 1992; Leekam, 1992). Yet, even 4-year-old children were able to distinguish between lies told to minimize the embarrassment of another person and those meant to be hurtful (Bussey, 1992). Similarly, a study by Ceci et al. (1993) found that their young participants were motivated to make errors of omission (e.g., withholding information about something that happened) and errors of commission (e.g., claiming that something happened when it did not) to avoid personal embarrassment.

In conclusion, children have been found to lie and to do so more in response to some motives than others. However, no empirical research supports the belief that children are prone to constant fabrication or are more likely to lie than their adult counterparts (Bussey, 1992; Harris, Brown, Marriot, Whittall, & Harmer, 1991; Johnson & Foley, 1984; Spencer & Flin, 1990). Furthermore, Bussey's (1992) work reveals that even young children possess the ability to differentiate between a lie and the truth. Therefore, the safest conclusion that can be reached is that participants of all ages are sensitive to the demand characteristics of a situation, and therefore can succumb to a wide range of motives to lie or withhold information.

Children's Ability to Distinguish Between Fantasy and Reality

An equally important consideration in examining the reliability and truthfulness of children's testimony concerns the ability of children to judge whether their memories for an event are real or imagined. Trying to discover how children view their inner and outer worlds is a difficult undertaking. Freud believed that children's incestuous fantasies lead to genuine fears of retaliation and the appearance of a more reality-oriented personality around the ages of six or seven. In turn, Kohlberg (1968) claimed that children do not cease viewing dreams as something external and real until around the ages of four or five. Soon after this age, children learn that others do not share their dreams. By age six, they are aware that dreams are internal events and by age seven, children learn that dreams are somehow caused and shaped by personal processes. Similarly, Piaget (1926) believed that "the child's mind is full of these 'ludistic' (fantasy play) tendencies up to the age of seven or eight, which means that before that age it is very difficult for him to distinguish the truth" (p. 34).

The capacity of children to make believe is linked to creativity, imagination, and the coherence and sophistication of real-world knowledge. One approach to the problem of fact versus fantasy is to empirically determine if children can distinguish between an imaginative world and an outer real world. However, a paucity of research exists with respect to this issue. Early studies found that children were indeed able to distinguish fantasy and reality (Flavell, Flavell, & Green 1987; Morison & Gardner, 1978; Taylor & Howell, 1973). For example, Morison and Gardner (1978) asked 5- to 12-year old children to group dragons, elves, and frogs according to whether they were real figures or

fantasy figures. All participants were highly accurate in their groupings, although errors decreased with age.

More recently, however, Harris et al. (1991) uncovered contrary evidence to children's fantasy-reality distinctions. Although children were able to assert that imagined ghosts, witches, and monsters were not real, when told to imagine that one of these pretend characters (e.g., a monster) was sitting in a box, some of the children began to act afraid. Yet, none of the children who were asked to imagine a rabbit sitting in a box acted in this way. Furthermore, 25% of the children demonstrated some magical and unrealistic thinking when questioned by the experimenter, entertaining thoughts that the pretend creatures *could* become real.

Additional studies have focused on children's abilities to distinguish between what they have experienced versus what they imagined they have experienced. Johnson (1991) reviews a series of studies in which children (aged 6 and 9) and adults are asked to judge whether they had said a word or imagined saying the word. Younger children were found to have more difficulty discriminating between real versus imagined words when both concerned themselves than the 9-year-old and adult participants. Yet, younger children were no worse than the older children or adults in judging whether the words were said or imagined by themselves versus someone else.

Another study by Lindsay, Johnson, and Kwon (1991) found that young children have difficulty separating sources of information that are perceptually and semantically similar. For example, 7- and 10-year-old children as well as adults were shown a video and instructed to either perform, to watch others perform, to imagine themselves

performing, or to imagine other people performing actions such as touching their nose. Participants were later asked to indicate for each list of actions which acts had been imagined, which had been performed, and which were new. Children performed just as well as the adults when the actions were semantically and perceptually distinct (e.g., self vs. someone else). However, the children found it more difficult than the adults to identify imagined and actual actions if the same actor was involved in both of them (e.g., watching vs. imagining someone else touch their nose).

Although these source monitoring studies suggest that children could be vulnerable to a range of confusions between actual events and imagined or suggested events, these studies have failed to examine children's abilities to distinguish the memory source of more ecologically valid actions or words that are of central concern to child sexual abuse investigations. Furthermore, debate continues as to whether the cognitive and imaginative capacities of children enable them to fantasize about sexual episodes and confuse these fantasies with reality (Arieti, 1976; Freud, 1965; Masson, 1984; Rosenfeld, 1979; Sivan, 1991; Spencer & Flin, 1990). Developmental psychology suggests that children younger than seven lack the mental structures needed for logical or abstract thought (Piaget, 1970; Singer & Revenson, 1978). Therefore, the child is dependent on actual experiences for producing the images of fantasy (de Young, 1986). Furthermore, the fantasies of a child around the age of seven stress mastery and competence; that is the child as hero and as problem-solver, as victor rather than victim (de Young, 1986). Due to these developmental aspects, many researchers argue that a child, more than an adult, lacks the knowledge or cognitive ability to construct a believable false statement, particularly in the

explicit detail in which they describe their sexual experiences, and maintain this fabrication over time (Goodman, 1984; Yates & Musty, 1988).

The reappraisal of children's intellectual capacity and ability to provide truthful and reliable testimony in recent decades has shown that children are no more prone to lying than adults. However, research on whether children can distinguish between fantasy and reality is less conclusive. Still, claims that attempt to link the unreliability of children's testimony with source monitoring difficulties are only speculative as no data has been found to support this conclusion (Ceci & Bruck, 1995). As a result, few meaningful differences exist between children and adults in their capacities to observe, recollect, and communicate the truth - the legal requirements to provide competent testimony in a courtroom (Bulkley, 1982; Goodman & Reed, 1986; Haugaard, 1988; Melton, 1981).

Despite this evidence, children continue to be assessed for competency while adults are exempted, illustrating the Canadian legal system's preoccupation with children's abilities to tell the truth. Yet, a child's capacity to tell the truth does not rest on the ability to understand the meaning of a solemn affirmation, nor on making a verbal contract with the court to tell the truth. Regardless, judges continue to wield discretionary powers to determine whether children can be deemed competent witnesses, capable of providing sworn or unsworn testimony. The following is an example of a competency examination given by a judge to a seven-year-old child (Case #11138):

Judge: Do you know what it means to take an oath?

Child: No.

Judge: Do you know what it means to take a solemn affirmation?

Child: No.

Judge: Can you tell me if it is important or not to tell the truth when people ask you questions?

Child: If you lie your Dad might spank you.

Judge: Well that is not good is it? Have you ever been spanked by your mom or dad?

Child: NO (indignant)

Judge: Do you know what it means to make a promise?

Child: Yes

Judge: What does it mean?

Child: To tell the truth and not to lie.

Judge: I want you to promise me that when you are asked a question here today that you will tell the truth.

Child: Yes

Judge: I don't want you to be making up any stories, do you understand that?

Child: Yes

Judge: Counsel, under section 16 of the evidence act I am satisfied that the child is able to communicate the evidence. I am not satisfied, however, that the child knows the meaning of an oath or a solemn affirmation. However, I think her evidence can be heard under the promise to tell the truth so the child will not be sworn.

Controversy continues over the use of competency examinations of child witnesses. Many researchers and legal personnel have found that the competency requirement serves no useful purpose and may, in fact, discredit the child witness prior to the beginning of the trial. For example, Peterson (1996) found that children's success with a competency test enhanced mock jurors' perceptions of the witness' honesty. Compared to identical witnesses giving identical testimony, children who qualified to provide sworn testimony by passing a series of competency test questions taken from British and North American courtrooms were rated as more truthful and less prone to lying. These results raise concerns about jurors being persuaded more by sworn evidence from a child under oath than by a child's unsworn evidence. Furthermore, the results of this study highlight the need for consistency in the qualifying procedures used by judges to assess children's competency to provide sworn or unsworn evidence.

At present no standardized procedure exists for assessing competency, and as a result, competency questions vary greatly in type and difficulty from one judge to another.

Therefore, considerable room exists for variations in interpretation of what responses satisfy competency to provide sworn or unsworn testimony (Dziech & Schudson, 1989; Sas, Hurley, Austin, & Wolfe, 1991; Whitcomb, 1986). This is of some concern as the determination of competency is a subjective process made by an individual who may or may not have knowledge of the developmental and cognitive abilities of children or the ability of children of all ages to testify.

A further argument against the usefulness of competency examinations is posited by Whitcomb et al. (1985) who assert that “if a child appears incompetent on the stand, chances are that it is the inappropriate nature of the competency exam that is rendering the child incompetent” (p. 221). Very little legal attention has been paid to the communicative and developmental barriers that may prevent children from answering competency questions to the best of their abilities (Saywitz et al., 1991; Saywitz et al., 1993; Saywitz, 1995). In particular, the role of judges in ensuring effective communication between themselves and child witnesses on issues of competency has been overlooked. Sas et al. (1991) found that judges were often unaware of the inability of children to answer complex and confusing questions and often addressed the children using double negatives, large words, and complex phrases that were too difficult for the witnesses’ developmental capabilities. Furthermore, Myers (1996) noted that the competency examination is replete with abstract concepts, such as, “truth” or “promise” as well as complex language, including, “solemn affirmation” or “oath” that encourage witness misinterpretation and confusion. Moreover, it is not known how many adult witnesses could provide satisfactory answers to such competency questions (Bala, 1992).

It appears that the burden of demonstrating competency has been placed on the child. This situation overlooks the fact that “eliciting reliable information from a witness involves an interplay between the child’s abilities to understand the questions posed and the demands of the legal system” (Saywitz, 1995, p. 115). Furthermore, the procedure of having a child “sworn in” or “promise to tell the truth” contributes little to the reliability of the testimony. Moreover, a “threshold” placed on the children as to whether they understand the meaning of an oath has little relevance to the information a child is expected to provide the court and shows no respect for the developmental level of the witness.

Many researchers have pointed out that most child witnesses possess the intelligence and abilities required to describe their experiences in a courtroom (Fivush & Hammond, 1990; Goodman & Reed, 1986; Hammond & Fivush, 1991; Saywitz, 1995). However, they are likely to lack the cognitive development to understand the nature and function of court proceedings, as well as comprehend complex and abstract legal terms such as “oath” or “solemn affirmation” as is required by the competency examination (Brennan & Brennan, 1988; Flin, Stevenson & Davies, 1989; Saywitz, 1989; Warren-Leubecker, Tate, Hinton, & Ozbek, 1989). Bulkley (1988) and Melton (1981) are among many commentators who have recommended that mandatory competency hearings for children be abolished. This position is supported by psychological research over the past ten years that indicates that most children aged four and older can provide competent testimony (Bulkley, 1989; Melton & Thompson, 1987).

Through the acknowledgment of the fact that the witness is a child who, when asked questions that respect his or her developmental capabilities, is capable of accurately recalling past events (Fivush & Hammond, 1990; Flin, Boon, Knox, & Bull, 1992; Goodman & Reed, 1986; Hammond & Fivush, 1991; Peterson, 1996; Spencer & Flin, 1990) and is no more prone to lying than an adult witness (Ceci & Bruck, 1995; Johnson & Foley, 1984; Harris et al., 1991; Spencer & Flin, 1990), reliability of information is more likely to be ensured than through a developmentally inappropriate competency assessment (Saywitz et al., 1991; Saywitz, 1995).

Part 2: The Examination of Child Witnesses

The traditions embodied in legal language and procedures have cemented Canada's common law heritage "that came down through the centuries with some of its past sticking to it, like a skin it never quite succeeded in molting" (Friedman, 1985, p. 24). Parts of that "unmolted" past deny fairness to children in court. If child victims of sexual abuse are to gain justice, society must examine the extent to which legal traditions interfere with the process of discovering truth.

Perhaps the "skin" of Anglo-Canadian law most difficult to shed is the adherence to adversarial trial procedures (Friedman, 1985). "In twelfth-century England, when two litigants confronted each other, they would fight until one bettered the other; the combatant who lost was deemed guilty. In such trial by battle, what really triumphed was force rather than truth" (Friedman, 1985, p. 24). While physical battle disappeared long ago, the basic concepts linger in the adversarial system. "Lawyers assume the roles of combatants for their clients and physical combat has turned to verbal strife. Now, oral

evidence is the most important feature of most trials and legal disputes in general”

(Friedman, 1985, p. 24). Accepted orthodoxy asserts that whatever problems may exist with witness testimony can be solved by cross-examination (Magner, 1995). While the Crown elicits the witness’ story in the examination in chief, the Defense elicits testimony favourable to its theory of the case, and/or undermines the credibility of the witness by challenging the statements made under direct questioning. The Canadian legal system remains deeply committed to the belief that in the clash of words between attorneys, the truth will emerge (Brennan, 1995; Melton, 1985; Whitcomb, 1986). While questionable for adults, the process of a trial by oral ordeal for a child paired to battle against an adult is clearly inappropriate, even by the old standard of triumph via physical force.

Increasingly, the public and the professional community are not so certain that truth necessarily follows from the verbal onslaught. “Dissatisfaction results from victories too often divined from the leftovers of adversarial combat. Yet, it is the business of the lawyer to tolerate and master artifice, to speak and think in terms geared toward extraordinary precision in order to control the narrative” (Brennan, 1995, p. 89). One trial lawyer comments, “you learn by experience to manipulate your own witnesses with words so that they are as effective as hell within the bounds of truth. But remember -- truth is a very wide road. Manipulation really isn’t supposed to be part of the system, but every good trial attorney knows it is” (Brennan, 1995, p. 74). Brennan (1995, p. 89) suggests that “artifice and technical difficulty tend to obscure rather than to illuminate the truth and that to suggest that justice is a result of this artifice is out of place.”

Courtroom Practice: The Dual Nature of the Problem

There are two ways in which the examination of child witnesses fails to show respect for the developmental capabilities of the child witness. The first is the type of question that indirectly holds the children responsible for their sexuality; this line of questioning should not be allowed given that the law explicitly forbids an adult from having sexual contact with a child. The second is to ask age inappropriate questions the child cannot be expected to answer. These two unsuitable approaches can be allowed by the courts and may be used as the basis for discrediting the testimony of the child.

A Contradiction: The Child as Sexual

The traditional view that children imagine events, engage in sexual fantasy, and are unreliable was legitimized by the studies on child witnesses that emerged near the beginning of the twentieth century in central Europe (Goodman, 1984). Freud played a critical role in reinforcing this negative view of children's reports of sexual abuse (Goodman, 1984). Freud's patients often reported having been sexually abused as children and he elaborated his seduction hypothesis to account for this sexual behaviour between parent and child. He later replaced his seduction theory with the Oedipus hypothesis. Through these actions, Freud denied the reality of child sexual abuse and indicated that memories of such abuse were mere fantasies expressing unresolved childhood wishes (Goodman, 1984). Several other early psychologists adhered to the view that children, especially girls, were "unreliable and dangerous" and prone to fantasy. For example, Wachtmeister (1948) stated that "a hand on the shoulder, a little push in the

stomach etc., may by them [girls] be described as instances of fondling and touching of breasts and genitals” (p.53).

Several early psychologists also perceived children as “seducers” or “Lolita types”; playing a strong role in their sexual abuse. Sadly, this belief has prevailed beyond the beginning of the century as evidenced by the work of child psychiatrist, Kai Tolstrup, who asserts: “One must be careful not to underestimate children’s own role in acts of indecency” (Tolstrup, 1969). In addition, a professor of forensic medicine claimed in an international journal “that 4% of the very young girls and 54% of the other girls under the age of 15 who had been exposed to sexual assault were all physically well developed for their age...” and he implied that there may have been a preponderance of “Lolita types” among these sexually abused girls (Voigt, 1972, p. 138). Such categorizations only serve to place the blame for the sexual abuse squarely on the shoulders of the children rather than on the offenders.

Although current psychological perspectives on children’s claims of sexual abuse no longer openly support the theories of children’s sexual fantasies or victim precipitation, they appear to have been incorporated in the criminal justice decision-making process. For example, a study conducted by Conte, Sorenson, Fogarty, and Dalla Rose (1991) found that defense attorneys in child sexual abuse cases have been found to argue that child victims exhibiting sexual behaviour are also able to invent a report of sexual abuse. Yet, this argument omits the findings of clinicians and researchers that children can exhibit heightened sexual knowledge and sexualized behaviour *as a result* of their sexual abuse experiences (Beitchman, Zucker, Hood, LaCosta, & Ackman, 1991; Browne & Finkelhor,

1986; Buffing & van der Zanden, 1992; Friedrich, 1993; Wells, McCann, Adams, Voris, & Ensign, 1995). Furthermore, Brennan (1995) found that the process of cross-examination is grounded in the “discourse of denial.” “During cross-examination the capacity of language is most often used, not for assessing or displaying the veracity of a proposition, but for calling into question the innocence of the child witness with respect to the sexual activity” (Brennan, 1995, p. 75).

In the context of sexual abuse, age is of particular importance, because it is the defining characteristic of the offense: by definition, “sexual abuse is the misuse of power by an adult to manipulate children who are too young to be fully independent and responsible” (Hornick & Paetsch, 1995, p. 6). For this reason, special legislation was created to deal with sexual offenses against children. In 1988, Bill C-15 made it an offense for anyone to sexually exploit, interfere with, or touch a person under 14 years of age. Thus, responsibility was placed on adults to refrain from any sexual contact with children. Once on the witness stand, however, these special considerations afforded children based on the fact that they are less able to make responsible decisions and judgments than adults, may be ignored (Brennan, 1995).

Brennan (1995) examined courtroom interactions between defense lawyers and child witnesses. He found that language tactics exercised in cross-examinations capitalized on the vulnerability of young victims and drew upon the widespread misinformation and assumptions that children tell lies and are unreliable. Specifically, lawyers used these language tactics to either deny that the sexual act had actually taken place, or to shift the “onus of refutation” of the adult’s sexual advances onto the child

witness. Brennan (1995) referred to the court experience of the child witness as a “degradation ceremony” and concluded that what goes on in the court is systematically and publicly abusive.

Because sexually abused children most often perceive themselves as being the cause of their sexual victimization, they are at risk of psychological harm resulting from inappropriate responses from criminal justice personnel (McEwan, 1988; Sas et al., 1991; Sas et al., 1993). For example, Dezwirek-Sas (1992) noted that following cross-examination, children reported exacerbated feelings of self-blame and guilt. As a result, many researchers and clinicians are highly critical of cross-examination strategies that denigrate the innocence of young witnesses and imply that the children either lied, or solicited the offender and enjoyed the victimization (Brennan, 1995; Goodman & Helgeson, 1988; Sas et al., 1991; Sas et al., 1993).

Brennan (1995) suggests that the tactics of asking questions that deny the reality of the abuse, or shift partial responsibility for sexuality from the accused adult to the child witness, appear on the surface to be reasonable because the court has implicitly used the context of adult sexuality for trying cases of child sexual abuse. In support, Isquith, Levine, and Scheiner (1993) found that jurors discussed the issue of child responsibility in sexual abuse cases, asking questions such as “Why didn’t she refuse him?” during deliberations. Unfortunately, the preoccupation of the legal process with the capacity of the child to answer these questions has shifted attention from the fact that full and complete responsibility rests with the adult who must refrain from all sexual activity with a child. The court appears to apply a model of adult sexuality to child sexual abuse cases

and perpetuates myths that effectively hold the child responsible for preventing the sexual abuse from taking place. The damaging effects of these myths are not only felt by the victims of sexual violence, but by society as a whole as the reality of sexual abuse is denied.

Ineffective Communication and the “Unreliable” Child Witness

Children are often the only sources of vital information in their sexual abuse cases and frequently the success of their cases hinges on the credibility of their testimony (Bottoms & Goodman, 1996; Bulkley, Feller, Stern, & Roe, 1996; Saywitz, 1995; Westcott & Davies, 1993). Children, by virtue of their immaturity, bring both capabilities and limitations to the task of providing testimony. According to Carsons (1990), many lawyers have capitalized on the weaknesses of child witnesses in testifying as a means to negate the child’s credibility and thus, suggest that the child cannot be believed beyond a reasonable doubt. “The use of courtroom methods of collecting evidence are inimical to the developmentally sensitive process necessary to elicit information from children and thus, reduces the optimal level of children’s responses” (Saywitz, 1995, p. 114).

The practice of cross-examination in our adversarial system may encourage the court to overlook the needs of children who appear as witnesses. “For two centuries, Common Law judges and lawyers have regarded the opportunity of cross-examination as an essential safeguard of the accuracy and completeness of testimony, and they have insisted that the opportunity is a right and not a mere privilege” (McCormick, 1984, p. 47). During cross-examination the goal of the Defense is to discredit and undermine the witness through strategic questioning. As a result, lawyers may ask questions of child

witnesses that are beyond their current developmental levels. Attorneys are notorious for using obscure vocabulary, compound sentences, posing questions requiring advanced reasoning skills, and asking for ratio measurement estimates (Sas et al., 1993; Saywitz et al., 1993; Saywitz, 1995). The confused children often respond with silence, "I can't remember," or when pressured to respond (for example, "Well, which is it?"), with errors that result from compliance with the demands of an adult authority to pick between two poorly understood alternatives. In a courtroom, the lack of a response, saying "I don't know," or errors of compliance, can be perceived as evidence of the child's incompetence.

Saywitz (1995) argues that children's apparent lack of credibility "has as much to do with the competence of adults to communicate effectively with children in the courtroom as it does with children's abilities to remember and relate their experiences accurately" (p. 115). Similar beliefs have been reported by researchers who suggest that the capacity of the child to accurately remember and report on a past event is often compounded by the inappropriate methods used in the courtroom to elicit the information (Boat & Everson, 1988; Marin, Holmes, Guth, & Kovac, 1979; Saywitz, 1995).

The use of developmentally inappropriate questions in the courtroom does not prove that the children are incompetent or unreliable witnesses concerning the details of their sexual abuse, but highlights the inappropriateness and insensitivity of such legal practices. It is in the sense of allowing developmentally inappropriate questions in the search for "truth" that the Canadian legal system has become a source of injustice. Any question or standard that is beyond the comprehension of the child is *prima facie* evidence of injustice, because it restricts the possibility of the discovery of the truth. The goal of

the Canadian legal process should be to ensure justice by using developmentally appropriate means for eliciting the truth from child witnesses.

The Role of Developmental Psychology in Solving the Problem

Saywitz (1995) aptly notes that the majority of child witness research conducted by psychologists has focused on the accuracy of children's memory and the veracity of their reports, neglecting the fact that "accurate reports are as much a function of the children's communication and cognitive skills as the communication demands of the legal system environment" (p. 115). By viewing witness reliability as a function of the child alone, associated research is limited in generating improvement in evaluating children's testimony. In contrast, "attention to the communicative aspects of the courtroom context tends to distribute responsibility for reliable testimony more evenly, as successful communication involves the communicative skill of both adult and child" (Snyder, Nathanson, & Saywitz, 1993, p. 40). Although communication is a shared activity, it is important not to overlook the fact that child witnesses are the disadvantaged communicative partners. Children are at varying stages of cognitive and linguistic development, which affect their ability to comprehend and respond to different types of adult questions or suggestions; therefore, they may be easily manipulated by the more advanced intellectual capabilities of an adult. Investigation into the use of developmental psychology to improve the age appropriateness of questions, which not only promotes effective communication, but the elicitation of accurate information is needed (Saywitz et al., 1991; Saywitz, 1995). Within this research framework, new avenues of procedural reform and legal review can emerge (Renner et al., 1997).

Part 1: Basic Developmental Psychology and the Courtroom

“Effective communication between adults and children depends on adults’ abilities to talk to children in a non-biased manner at the child’s level of understanding of conversational rules and concepts, accounting for the child’s age, vocabulary, and linguistic skill” (Snyder et al., 1993, p. 40). Therefore, an understanding and respect of child development is vital to the mechanics of working with children in the legal system and the attainment of fundamental justice. However, legal professionals receive little instruction on the norms of child development. Furthermore, the adversarial nature of the court process may mean that individual attorneys are not motivated to accommodate children developmentally (Snyder et al., 1993). Without an appreciation of child development, however, judges and attorneys will have difficulty overcoming communication barriers and dealing with problems of factual accuracy, as well as examining and cross-examining children in a fair and unbiased manner on the witness stand (Perry & Wrightsman, 1991).

The Development of Memory in Children

Goodman (1984) has pointed out that memory is the basic premise for testimony. Therefore, a major research focus with respect to children as witnesses is their memory skills. Modern research suggests that the memory process matures early and young children are able to retain accurate memories of characters and events. Therefore, young children possess the skills needed to describe events especially when they are asked simple questions in a supportive atmosphere (Fivush & Hammond, 1990; Flin et al., 1992; Hammond & Fivush, 1991). These memory skills, however, improve with age as the

ability to accurately encode, store, retrieve, and monitor different types of information in memory mature (see reviews by Ceci & Bruck, 1995; Kail, 1989; Schneider & Pressley, 1989). As a result, children tend to recall less information about an event than adults, yet the information that they recall is generally quite accurate (Fivush, 1984; Slackman & Nelson, 1984). By contrast, adults recall a greater quantity of information about an event as well as more incorrect information (Goodman & Reed, 1986; Loftus, 1979).

Recall memory is often described as the most complex form of memory because it involves retrieval of previously experienced events with few prompts (Anderson, 1990). This is the type of memory demanded by legal contexts. Interrogation using free recall or objective, open-ended questions such as “What happened?” or “Do you know why we are talking today?” elucidates the most accurate responses in children, inviting children to discuss the subject at will. However, when asked to describe what happened, children’s responses may be quite skeletal as the number of statements produced in free recall increases with age (Goodman & Reed, 1986; Goodman, Rudy, Bottoms, & Aman, 1990; King, 1984; Spencer & Flin, 1990), but low error rates indicate that their reports are seldom wrong (Goodman, Aman, & Hirshman, 1987; Goodman, Hepps, & Reed, 1986). In other words, children commit errors of omission rather than commission. Children who are asked to talk about events they have experienced tend to omit information they know about more often than they mistakenly report events that did not occur. This is not to say that young children remember less, but that young children are not as proficient at free recall as are older children and adults.

There is little evidence, however, that children's lower recall reflects a defect in the memory system itself. In general, children may be at much less of a disadvantage the more familiar they are with a situation. If the usual knowledge advantage of adults is eliminated, so is their memory advantage over children. For example, Chi (1978) compared adults and ten-year-old children in their ability to recall chess positions. The children were experienced chess players; the adults were not. In this case, the children recalled more than the adults. Similarly, Lindberg (1980) and Chi and Koeske (1983) found that third graders recalled significantly more than adults when the materials they were shown were selected from the children's everyday experiences (e.g., cartoon characters, books, dinosaurs).

A focused or specific question draws children's attention to a particular person, place, time or event, or introduces a new topic for discussion. An example of an objective, focused question is "Shall we talk about school now?" To answer these questions children are required to retrieve and communicate an answer they have stored in memory, but are prompted by the content of the questions. This type of questioning is frequently used with child victims of sexual abuse because their spontaneous free recall may be cursory (Batterman-Faunce & Goodman, 1993) and it assists attorneys during cross-examination in the legal practice of controlling the witnesses' narrative (Brennan, 1995; Levy, 1991; Salhany, 1991).

In response to specific questions about central experiences, children as young as 6 are usually able to respond accurately (Goodman & Reed, 1986; Spencer & Flin, 1990). However, age differences in a witness' ability to answer specific questions can be expected

to vary depending on such factors as the type of information queried, the child's cognitive stage, and the structure of the question. For example, Reisser (1986) found that lengthy sentences, which are common in the courtroom, were often beyond the memory limits of children as old as 8 years of age. As a result, the children in Reisser's (1986) experiment would respond only to the part of the question that they could remember, leading to the confusion and misinterpretation of their responses.

In general, children's answers to questions about descriptions of people, and of the room where an event occurred are typically less accurate than their answers to questions about central actions that took place (Dent & Stephenson, 1979). These inaccuracies occur because the main actions that took place are central to the child, more so than the peripheral information concerning the description of a room or whether they were forced to perform oral sex on the floor or on the bed (Goodman & Reed, 1986; Pear & Wyatt, 1914). Therefore, when examining a child witness, what is best remembered is what is central to the child, not what is central to the adult. In fact, children's responses to non-leading, specific questions can be quite accurate when the questions concern central actions about an event that involves the child's own body (Baker-Ward, Hess, & Flannagan, 1990). For example, Goodman et al. (1990) found that 100% of the 3- to 6-year-old children questioned about a personally significant event knew that they had not been spanked. In addition, when asked if they had been touched anywhere other than where they had actually been touched, none of the children falsely claimed inappropriate touching.

Overall, studies suggest that children possess the memory skills needed to testify, at least when they are asked simple and direct questions about central details in a relatively neutral or supportive environment (Goodman, Bottoms, Schwartz-Kenny, & Rudy, 1991; Melton, 1981). With age children's memories become more detailed, organized, and complete (Nelson, 1986).

Suggestibility in Memory

While children's free reports are impressively accurate and while 5- and 6-year-old children can be as accurate as adults in response to certain specific questions, it is the extent of children's suggestibility that is currently the subject of most debate.

Suggestibility is defined as the degree to which the report of an observer changes after a witnessed incident to include information that was not present during the event (Penrod, 1989).

Although the factors that lead to suggestibility are many and complex, leading questions are one of the most powerful means of influencing the testimony of children and adults alike. A leading question is one in which an answer is implied or contained. Witnesses can encounter leading questions as part of the police interviewing process as well as in the courtroom. Within the context of pre-court police interviewing, protocols have been developed to guide police investigators in the use of interrogation techniques that do not influence children's statements.

Similarly, lawyers are not permitted to ask leading questions during the examination-in-chief as they may bias a witness' answers. However, during cross-examination, leading questions are allowed. This right of the Defense, nonetheless, is not

without limits. As one legal text states “the discretion to put a halt to leading questions in the course of any examination may be used with great flexibility in a variety of situations to promote a fair trial and prevent evidence from being adduced from a witness who may be susceptible to the power of suggestion” (Adair, 1992, p. 131).

Researchers have discovered, however, that the consequences of asking leading questions are much more serious than merely encouraging a witness to contemplate the plausibility of a suggestion. Rather, leading questions have been found to distort witnesses’ memory of an event as memories of both children and adults are vulnerable to suggestive questioning (Goodman & Reed, 1986; Loftus, 1979; Loftus, 1997; Loftus & Davies, 1984; Loftus & Palmer, 1974).

A common method of contaminating people’s memory of an event (to introduce or suggest errors) is to ask them a leading question containing an item of information that is not accurate to the original event. In a pioneering study by Loftus and Palmer (1974), adult participants viewed a film of a car accident and were asked to estimate the speed of the car at the moment of impact. It was found that estimates of speed varied as a function of the verb used (smash vs. contact) to describe the accident. Furthermore, when participants were later asked to describe the accident it was found that those exposed to this “smash” condition were more likely to report having seen broken glass at the scene of the accident when, in fact, none existed.

The mechanisms behind suggestibility are elusive to researchers. Some theorists suggest that the incorporation of post-event information into the original memory is a result of the strength of the memory trace. Therefore, weak or loosely integrated traces

are more vulnerable to intrusion from external sources (Brainerd, Reyna, Howe, & Kingma, 1990; Ceci, Toglia & Ross, 1988). In contrast, other theorists propose that post-event information does not actually blend into the original memory trace. Rather, the erroneous information coexists with the accurate original memory trace (McCloskey & Zaragoza, 1985a; 1985b).

Regardless of the underlying mechanisms, it is now well established that adults and children exposed to misleading post-event information are likely to report such information on subsequent memory tasks and do so confidently (Ceci, Ross, & Toglia, 1987; Goodman & Reed, 1986; Lindsay, 1994; Loftus, Miller, & Burns, 1978; Weingardt, Toland, & Loftus, 1994). Furthermore, Loftus et al. (1978) found that the greatest post-event memory contamination occurs when the misleading information is introduced following a long delay after acquisition and before recall. This finding illustrates how the legal process, replete with delays, and the use of leading questions by attorneys can be amicable to the contamination of memory.

Unfortunately, the effect of such post-event misinformation on memory has been found to be robust. Weingardt et al. (1994) found that even when participants were instructed to exclude suggested items from their recall lists they continued to include them. This finding led them to conclude that “witnesses can exhibit strong beliefs in their memories, even when those memories are verifiably false” (p. 25).

Goodman (1984) faults the majority of the empirical research examining the suggestibility of children’s testimony for failing to address the types of information of central concern in child sexual abuse investigations, namely abusive actions such as being

kissed or fondled. Instead, these studies focus largely on children's suggestibility for peripheral or ambiguous details presented in mundane stories or pictures. Goodman and Reed (1986) suggest that it is more difficult to lead a child witness into false affirmations concerning more central, salient, and highly relevant information.

In response to criticism, recent studies of children's suggestibility have concentrated on children's testimony for meaningful, real-life events. According to Ceci (1991), experiments that employ "ecological validity" provide greater insight into children's memory and suggestibility regarding real-life events. Studies that target the suggestibility of children for real-life and stressful events, like that of a sexual assault however, have produced mixed results (Goodman et al., 1990; Goodman, Hirschman, Hepps, & Rudy, 1991; Rudy & Goodman, 1991; Saywitz et al., 1991). As a result, debate continues as to whether there are or are not developmental changes in children's suggestibility.

Children Are More Suggestible Than Adults

In one experiment, 3- and 6-year-olds' memories of a pediatric examination were tested using a variety of questions, some of which were leading (Ornstein, Gordon & Larus, 1992). Test sessions occurred immediately after the examination, 1 week later, and three weeks later. The older children provided more accurate responses to the leading questions than the younger children after the first two test sessions. However, these age differences were not sustained after three weeks. Similar findings were also reported by Goodman et al. (1990) and Goodman et al. (1991).

In these two studies, children were videotaped while they experienced either a fun event (e.g., playing a game) or as stressful event (e.g., immunization, venipuncture). The venipuncture study involved children ages 3 to 7 and the delay interval for memory testing was 3 to 4 days (Goodman et al., 1991). The inoculation study involved children aged 3 to 6 and the delay interval was either 3 to 4 days or 7 to 9 days following the immunization (Goodman et al., 1990). The children in both studies were questioned about such things as whether they were touched, hit, kissed, or had anything placed in their mouths. Furthermore, some of the questions were leading (e.g., "How many times did he spank you?").

In general, the children were very resistant to these questions, however, significant age differences emerged in the ability to answer leading and objective questions accurately. Once again, the younger children were found to be more susceptible to suggestion than older children. Despite this evidence, research studies also exist which support the view that children are no more suggestible than adults.

Children Are No More Suggestible Than Adults

In a study by Flin et al. (1992), adults as well as 6- and 10-year-old children were exposed to a realistically staged argument during a presentation on foot hygiene by a nurse in the school auditorium. Half of the participants were questioned about the event 1 day later and all participants were interviewed 5 months later. Despite the fact that the interviews contained leading questions, responses were highly accurate across all three age groups in both interviews. Few participants of any age were misled by the leading questions.

Similar results were reported by Rudy and Goodman (1991) who studied pairs of 4- and 7-year olds who were left in a trailer with a strange adult. One child played a game with the adult which involved being dressed in a clown costume and being photographed while the other child observed. After 10 days, the children were asked a series of questions, some of which were leading, regarding abuse and non-abuse related topics. Across all question types, there were few differences between participants' and observers' responses. However, older children provided more accurate responses to the questions including the non-abuse leading questions. Yet, for the suggestive abuse questions, no age differences were found.

A second study conducted by Goodman and her colleagues examined 5- and 7-year-old girls' memories of medical examinations (Saywitz et al., 1991). Half of the children received a scoliosis exam and half a genital exam. Children were asked a variety of questions, including leading questions, that were abuse and non-abuse-related. Although older children provided more accurate responses to the leading non-abuse questions than the younger children, there was no difference in resistance to suggestibility for the leading abuse questions across the two age groups. These results along with those of Rudy and Goodman (1991) suggest that children are fairly resistant to an interviewer's suggestion that a sexual act occurred when it did not.

In light of these findings, the issue of whether children are more or less suggestible than adults is not as simple as it might seem. For example, direct comparison between the studies cited above is not possible due to the variability in methodologies used (e.g., sample sizes, number of suggestive questions included, linguistic complexity of the

suggestive questions, etc.). Furthermore, within some of the studies there are conflicting results. Both Rudy and Goodman (1991) and Saywitz et al. (1991) found that there were age-related differences in children's answers to leading questions, except for one type of question - the leading abuse questions. However, the bulk of the evidence appears to suggest that there are developmental trends in suggestibility.

These developmental trends in suggestibility become more pronounced when specific mechanisms thought to produce distortion are investigated. For example, children, more than adults have been found to be vulnerable to questioning under intimidating conditions (Goodman et al., 1990; Goodman et al., 1991; Smolensky & Goodman, 1987), questioning by someone in a position of authority (Ceci et al., 1987), or repeated questioning (Baker-Ward, Hess & Flannagan, 1990; Brainerd et al., 1990). For example, children between the ages of 7 and 10, when asked to recall the details of an event that occurred 4 years previously, were influenced by the atmosphere of accusation created by the experimenters. As a result, the children inaccurately reported events even though they had no conscious memory of the original experience (Goodman, Wilson, Hazan, & Reed, 1989).

Furthermore, children perceive adults, particularly those in a position of authority such as a police officer or lawyer, as cooperative conversational partners who ask honest questions that must have an answer (Garvey, 1984; Romaine, 1984). In a study by Hughes and Grieve (1980), children aged 5- to 7-years-old were asked nonsensical questions such as, "Is milk bigger than water?" Most of the children replied "yes" or "no" rather than "I don't know." Interestingly, Pratt (1991) reported that adults are not

immune to providing answers to some types of bizarre questions, however, child participants are more willing to supply the adult interviewer with the type of information that they think is being requested (Ervin-Tripp, 1978; Read & Cherry, 1978). Therefore, when asked a question more than once, children can change their answers presumably because they interpret the repeated question as a cue that they did not provide the correct response the first time. For example, in a study of children's memory for a bicycle theft, a large proportion of kindergarten children (42%) changed their mind on repeated questioning. Similarly, developmental psychologists have found that children's responses to Piagetian conservation questions are more accurate when they prompt the children only once as children are more inclined to change their responses when asked the same questions several times.

In sum, it appears that an accusatory climate or forceful, repeated interrogation may prove to be damaging to children's testimony (Synder et al., 1993). Furthermore, children's resistance to suggestive questions is context dependent. The dynamics of the interview/court situation, the witness' understanding of it, the conduct of the interviewer/attorney all have an impact on the degree of suggestibility of the child being interviewed (King & Yuille, 1987). For example, both Goodman et al. (1990) and Spencer and Flin (1990) found that an intimidating environment such as the courtroom during cross-examination was responsible for an increase in suggestibility to abuse related questions for children aged 3 to 10. However, a supportive interview atmosphere dramatically reduced children's susceptibility to leading questions (Goodman et al., 1990; Spencer & Flin, 1990).

The mere fact that children's testimony can be influenced by suggestion does not imply that their ability to remember the event is impaired. Research reveals that children, even preschoolers, are capable of recalling much that is forensically relevant. That their reports are more vulnerable to distortion due to their age, the use of suggestive questions, the types of information queried (e.g., peripheral details; ambiguous events), the context of the interview (e.g., intimidating; supportive), and the nature of the individual asking the suggestive questions (e.g., position of authority) does not imply that they are incapable of providing accurate testimony. "Suggestibility is not some kind of universal trait with which all children are invested" (Kapardis, 1997, p. 111). Adult memory is also quite malleable.

As evidence, Elizabeth Loftus has made a career of demonstrating that adults are susceptible to suggestions introduced through leading questions. In her more than 200 experiments involving over 20,000 participants, adults have recalled information such as broken glass, tape recorders, and barns that were not in the scenes they viewed, a white instead of a blue vehicle in a crime scene, and Minnie Mouse when they actually saw Mickey Mouse. More recently, Loftus and her colleagues have begun a research program designed to implant suggestions of false childhood events, such as being lost in a mall or being saved by a lifeguard, in the memories of their adult participants. Results to date reveal that although initially resistant to the suggestions, small numbers (e.g., 25%) of the participants succumbed to the suggestions and recalled either partially or fully the fictitious events (Garry, Manning, Loftus, & Sherman, 1996; Loftus, 1997).

In light of this research on adult suggestibility, it appears that in many situations both children and adults are susceptible to suggestible information. Therefore, as Ceci and Bruck (1993) suggest, “the question ought not to be whether children are susceptible, but whether the level of suggestibility is so much greater than that of an adult as to render them an obstacle to the court’s truth-seeking process when they serve as witnesses” (p. 433). The research evidence highlighted in this chapter indicates that although there are a variety of conditions under which children have been found to be more suggestible than adults, there are also many situations where children have provided accurate and reliable information. Therefore, the answer to the question proposed by Ceci and Bruck (1993) appears to be “a qualified no” (p. 433). “Children can be good witnesses when their special needs are understood” (Naylor, 1989, p. 82). Such conclusions have implications for a legal system that tends to be insensitive to children’s needs and maintains the assumption that a witness’ age appears to be related to his or her credibility.

The Development of Cognition

“Cognition is concerned with the activities and behaviours through which knowledge of the world is both attained and processed by human beings” (Hetherington & Parke, 1986; Perry & Wrightsman, 1991, p. 69). According to developmental psychologist Jean Piaget, humans are governed by finely tuned perceptual and cognitive processes that develop and change in predictable ways over the lifespan (Furth, 1969; Piaget, 1926; 1928; 1970). Intellectual development appears to take place in stages such that each stage involves a period of attainment characterized by the progressive organization of a composite structure of mental operations (Cohen, 1983; Furth, 1969).

In turn, each structure constitutes the attainment of one stage and the starting of the next stage. The order of the succession of stages is constant and ages of attainment can vary within certain limits (Piaget & Inhelder, 1973). Further, the transition from an earlier stage to a later stage follows a process of integration where proceeding structures become a part of later stages. However, each stage is qualitatively different such that the experience and concept of a 4-year-old child's number 7 is different from that of a 10-year-old child (Pelligrini, 1991). In other words, specific behaviours or cognitions may serve different functions at different periods of development and what a child learns from any given experience is a function of his or her developmental level (Case, 1992; Pelligrini, 1991).

It is also important to note that the development of concepts and structures are subject to a ceiling in their complexity at any age, even under optimal conditions. These ceilings are due to the existence of age related organismic constraints that apply across the entire psychological system (Case, 1992; Case, Okamoto, Henderson, & McKeough, 1993). Therefore, when a child is asked to answer a question in the courtroom involving hypothetical reasoning skills such as "If/Then" before he or she has attained that stage of comprehension, the child is simply incapable of responding accurately. No matter how simply the question is structured linguistically, the accurate answer cannot be produced. These constraints change only gradually with development and as they do change, so does children's optimal performance (Case et al., 1993).

As part of his developmental research, Piaget described four qualitatively different stages through which children progress on their journey to cognitive maturity. In the

sensory-motor stage, “children from birth to age 2 understand the world primarily through activation of their five senses and through their physical actions on the environment” (Perry & Wrightsman, 1991, p. 69). From ages 2 to 7, children understand the world in a prelogical, intuitive way known as preoperational thinking. “Preoperational children tend to jump from data to conclusions through large, impressionistic leaps as they reason on the basis of what they see” (Perry & Wrightsman, 1991, p. 69). For example, they may think the tallest person in the room is the oldest, focusing on height and not processing information about hair color or wrinkles as indications of age.

Further, preoperational children are egocentric and tend to believe that others view things as they do. In fact, they may even believe that the adult knows about an event as the child knows it (Piaget, 1928). For example, children may believe that the attorney already knows who was present and where an event took place. Egocentric thought also limits children’s abilities to answer questions about what another person might have been intending. The question, “Why didn’t you run away when he asked you to come sit on his lap?” requires a child to make inferences about someone else’s intentions which they are unable to do at this stage.

By the time children reach the age of 7, they begin to use logical systems to organize their experiences. At this level, known as concrete operations, they use reality based mental operations to attempt to understand the world (Perry & Wrightsman, 1991). For example, time comes to be understood as containing units such as hours or days, not just marked by calendar pages. “Impressionistic leaps from data to conclusions are replaced with mental strategies that involve a series of small-scale, reversible steps” (Perry

& Wrightsman, 1991, p. 69). For example, children become skilled at thinking about the months of the year in forward and backward order during this stage. Children, at the end of the concrete operations stage, are only then able to understand kinship terms in ways that a preoperational child cannot. "In intra-familial cases of alleged abuse, questions often require discussion of extended family members" (Saywitz et al., 1993, p. 65).

Therefore, when a child of 10 or 11 who has mastered the concrete operational stage is asked, "Who's mother is your Grandma Sarah?", 'Grandma Sarah' as 'Dad's mother' is understood. "This understanding requires the mental operations of reversibility such that the child can imagine that his father was once a baby and had a mother, and that this older woman 'Grandma Sarah' is that person" (Saywitz et al., 1993, p. 65).

Finally, beginning at about the age of 11, individuals usually start to become capable of complex, abstract reasoning in the formal operational stage (Piaget & Inhelder, 1973). "At this level, children can analyze If/Then statements through systematic exploration of logical alternatives" (Perry & Wrightsman, 1991, p. 77). However, researchers have found that only a small portion of adolescents and adults actually reach the highly developed capacity of this sophisticated cognitive level (Capon & Kuhn, 1979; Dasen, 1972; Higgins-Trenk & Gaithe, 1971).

Questions that require witnesses to do complex, abstract reasoning or problem-solving before they have attained this stage are problematic. Children are not aware of their own limitations and may use trial and error to reason out an answer that can only be solved with more complex reasoning skills such as deducing possible outcomes and testing the alternatives. Therefore, it is not difficult to see how "age inappropriate

questioning can promote contradictions and inconsistencies in children's testimony" (Saywitz et al., 1993, p. 66).

Piaget's Theory and Implications for Courtroom Question Content

Piaget's developmental stage theory elucidates the importance of matching examination questions to the cognitive capabilities of child witnesses in the courtroom to ensure that they are perceived as credible. Therefore, the knowledge of lawyers or judges about the norms of cognitive development is crucial to ensuring that information is elicited in a manner that allows children to provide optimal testimony. "Frequently, as part of the court examination process, child witnesses are asked to: pinpoint the time or duration of an event in minutes, hours; to pinpoint a location in terms of miles, city; to describe someone's height in feet and inches, and weight in pounds" (Saywitz, 1995, p. 120). Saywitz (1995, p. 120) suggests that to do so, "a witness should have mastered conventional systems for measuring time, distance, and weight, but these skills are learned gradually over the course of the elementary school years and many are not fully mastered until adolescence" (Brigham, Vanverst & Bothwell, 1986; Davies, Stevenson, & Flin, 1988; Davies, Tarrant, & Flin, 1989; Friedman, 1982; Piaget, 1970; Saywitz et al., 1991).

See Table 1 for more information.

Questions become problematic when they require skills children have not yet developed. The degree to which the content of the question matches the child's stage of cognitive development affects the accuracy of the responses. Children may try to answer a question even when they lack the necessary skill, and the resulting misinterpretation of their answers is perceived by adults as an indication of their incompetence (Saywitz, 1995, p. 120).

The following sections draw heavily on and are modified after the leading research of Karen Saywitz and her colleagues which is designed to outline children's linguistic and cognitive strengths and suggest how to empower these competencies in the courtroom. Moreover, these sections are intended to illustrate how knowledge of developmental theory can assist in the formation of examination and cross-examination questions that are sensitive to the abilities of child witnesses.

Questions Concerning Number

Saywitz (1995) points out that witnesses are frequently asked how many times a certain event occurred (e.g., How many times did he put his mouth on your penis?), and to answer, the witness must be able to count. Developmental psychology research tells us that children, particularly preschoolers, may be able to recite the numbers from 1 to 10, but this does not necessarily imply that they understand the underlying number concepts (Gelman, 1978; Snyder et al., 1993, see p. 64). Further, this problem can be compounded when child witnesses are asked to count non-specific events. Because events do not have discrete boundaries for children, the adult needs to specify the action to be counted to ensure accuracy. For example, "How many times did he put his mouth on your penis?" is more likely to elicit an accurate number than "How many times were you molested?", because the former paints a concrete picture of the exact activity to be counted (Saywitz et al., 1993, see p. 64). According to Piaget (1926; 1928), children reason on the basis of what they see and visualize; therefore, it is best to talk in pictures, not concepts. "Questions about how many times things happened often contribute to inconsistencies in

children's reports, which are more a function of adults' questioning than of the child's response"(Saywitz et al., 1993, p. 65).

Questions Concerning Time

As part of testifying, children are often asked the date or duration of a sexual abuse incident. The estimation of time and duration, however, seems to be relatively late in developing. Piaget (1970) has shown that children's ideas regarding time are "intellectual constructions that emerge and undergo successive transformations through experience and action before finally consolidating by the age of 13 to 14 into regular established durations of minutes, hours, days and years" (Gorman & Wessman, 1977; Levin, 1992, p. 16). At the preoperational level of development, time is often confused with distance or length: it is often thought of as a place, such as supertime in the kitchen or bedtime in the bedroom (deYoung, 1986). Until the age of seven or eight, the understanding of seasons, months, and clock time is tenuous (Ames, 1946; Friedman, 1982). Furthermore, children often struggle with questions involving diachronic thinking, such as determining whether something happened before or after some other event, until adolescence (Brown, 1976; Friedman, 1982; Montangero, 1992; Montangero, 1993; Saywitz et al., 1991). Some attorneys relate events to familiar routines or holidays as reference points. However, Saywitz et al. (1993, see p. 65) suggest that there is no way of knowing whether the child thinks the July event comes "after" the last Christmas or "before" the next Christmas, so the answers will have little meaning and are fertile ground for miscommunication. Yet, children can reason, that if they were playing with their Christmas toys, then the event probably occurred during the winter (Saywitz, 1995).

Questions Involving Logic

Examination questions often require advanced hypothetical-deductive reasoning of children (Saywitz, 1995). Inconsistencies result when children are compelled to answer questions requiring these skills before they have completed the formal operations stage of cognitive development (Piaget, 1928; Saywitz et al., 1991; Saywitz et al., 1993). As a result, children may respond illogically as they attempt to answer the question without the necessary skills in compliance with the demands of the attorney.

Developmentally Appropriate Questions

Few studies have attempted to examine the impact of asking developmentally appropriate questions of child witnesses. In one study, 72 five- and seven-year-old children participated in a physical examination (Saywitz et al., 1991). One week or one month later, the children were asked to recall the doctor's age, height, and duration of the exam via traditional or alternate questions. Traditional questions required estimates of height in feet and inches, age in years, the date, and duration in terms of minutes.

Alternate questions concerned information from which the time and date could be deduced (e.g., "Was the doctor old enough to drive a car?" "Did it happen during the week or on a weekend?") (Saywitz, 1995, see p. 123). Saywitz et al. (1991) found that when question content was compared, the children's responses were significantly more accurate when elicited by the alternate rather than the traditional questions. This is not surprising however, as developmental research reveals that many cognitive concepts, including height, weight, and age, appear to mature in stages (Piaget, 1928; 1970). Children initially understand a concept such as distance (Goetze, 1980; Rudy, 1986) first in its qualitative

form (near, far), then in its representational form (farther than, nearer than), and finally in its quantitative form (inches, kilometres) (see Table 1).

Table 1

Children's Approximate Developmental Acquisition of

Distance, Size, and Time Estimation

	Qualitative (use of nominal units; ages 8-10)	Representational (use of ordinal units; ages 11-13)	Quantitative (use of ratio units; ages 14+)
Distance	far, near, short, or long are the words used to describe distance	farther, nearer, shorter, or longer are the words used to compare and describe distance	inches, miles, or other units of measurement are used to compare and describe distance
Size	big or small are the words used to describe size or area	bigger or smaller are the words used to describe and compare size or area	inches, miles, or other units of measurement are used to compare and describe size or area
Time	short or long are the words used to describe time	longer or shorter are the words used to describe and compare time	hours, minutes, seconds, or other units of measurement are used to compare and describe time

Note: Based on the work of Goetze, 1980, Piaget, 1970, Rosser, 1994, and Rudy, 1986.

The results of Saywitz et al.'s (1991) pioneering study highlight the need to develop alternative methods for eliciting accurate information from child witnesses. The examination of courtroom communication and its mismatch with children's normative cognitive development suggest that, "often questions are asked in language too complex for children to comprehend about concepts too abstract for them to understand. When the

discrepancy between the cognition of the courtroom and the cognition of the child is great, children's responses can appear unreliable" (Saywitz, 1995, p. 125). Asking developmentally inappropriate questions of witnesses in the courtroom, however, does not prove that the children are incompetent or unreliable witnesses concerning the details of their sexual abuse; rather it highlights the inappropriateness of such examination practices. The failure of an adult to answer a question asked in a foreign language does not mean that the adult does not remember the event in question. Similarly, a question asked in a form a child cannot comprehend does not mean that the child cannot remember the event.

Part 2: Children's Cognitive and Communicative Abilities and the Courtroom

"For the most part, judges and jurors are passive communicators, listening to the testimony and rarely asking questions" (Snyder & Lindstedt, 1994, p. 18). In turn, lawyers are the primary communicative partners of child witnesses on the stand. Snyder and Lindstedt (1994) noted that because attorneys' are responsible for representing their clients' rights, they are far from objective. Rather, attorneys' have a vested interest in a trial and its outcome. In this context, lawyers are thought "to hold the power advantage in courtroom discourse" (Snyder & Lindstedt, 1994, p. 18).

Attorney's are responsible for entering into the communicative contract with all witnesses, jurors, and the presiding judge, taking the sheer majority of all the verbal turns that comprise the courtroom discourse. Attorneys' verbal discourse then gives them the quantitative dominance during a trial or hearing. It is, therefore, logical that what attorneys say and what they do with what they say can significantly affect the outcome of a trial (Snyder & Lindstedt, 1994, p. 18).

Much of what occurs in the courtroom, then, revolves around communication and the communicative abilities of the courtroom players. Lawyers are particularly skilled in

the art of communication, as they are trained to control the witness' narrative through precise questions that elicit short, specific answers such as yes or no (Adair, 1992; Brennan, 1995; Levy, 1991). Further, attorneys are also encouraged to exploit and develop the skill of maintaining power and control over the witness through verbal means (Brennan, 1995; Imwinkelreid, 1980; Kelner & McGovern, 1981). When paired as communicative partners with skilled adults such as these, children are at a disadvantage. Because communicative abilities are often overlooked as compromising testimony, developmental psychology can aid in the determination of the degree to which the linguistic structure of questions match children's level of language and cognitive functioning.

Vocabulary and Linguistic Complexity

Several investigations (Brennan & Brennan, 1988; Graffam Walker, 1993; Perry, Claycomb, Tam, McAuliff, Dostal, & Flanagan, 1993; Saywitz et al., 1993) have discovered empirical evidence that many child witnesses do not understand the linguistic structure or vocabulary used in courtroom examination questions. Recent research studies examining legal terminology frequently used with child witnesses under ten years of age found that these words were often misinterpreted (Flin, Stevenson, & Davies, 1989; Melton et al., 1992; Warren-Leubecker, et al., 1989). For example, Saywitz, Jaenicke, and Camparo (1990) examined sixty 5- to 12-year-olds' knowledge of legal terminology and found that younger children tended to make auditory discrimination errors, misinterpreting the foreign legal term as a familiar word (e.g., jury was interpreted as jewelry or journey). Saywitz (1995, see p. 116) suggests that these errors are not

unexpected seeing that auditory discrimination skills are not fully developed until 8 years of age (Ingram, 1976). In turn, older children admitted that they were unfamiliar with the terminology. Research such as this illustrates the importance of age appropriate vocabulary in eliciting dependable statements from children (Saywitz, 1995).

Furthermore, studies suggest that there are many types of grammatical constructs that are not mastered by young children, but are frequently found in the courtroom (Brennan & Brennan, 1988; Walker, 1993). In a study by Brennan and Brennan (1988), the courtroom transcripts of 6- to 15-year-old child witnesses were reviewed (Brennan & Brennan, 1988). "Age mates abilities to repeat selected and randomly drawn questions from the transcripts were evaluated on the assumption that errors in repetition reflected their comprehension of the original question" (Saywitz, 1995, p. 117). As expected, the results revealed children's misunderstanding of many common courtroom questions, cloaked in so-called legalese. Legalese contains complex and convoluted sentences replete with embedded clauses and grammatical patterns that are beyond the comprehension of many children under eight years of age (Briere, Berliner, Bulkley, Jenny, & Reid, 1996; Reich, 1986). For example, Carter (1991) found that when children were asked abuse-related questions in legalese, error rates increased substantially.

Researchers suggest that lengthy sentences need to be broken down into several short questions requiring short answers to assess the credibility of the child's response (Brennan & Brennan, 1988; Saywitz & Snyder, 1993; Saywitz, 1995). Furthermore, questions that allow multiple interpretations and options but restrict answers to yes or no without qualification such as, "Did he push you onto the bed and make you do that three

times?" create communication barriers (Saywitz, 1995, see p. 117). In this example, listeners cannot deduce whether a response refers to the push, the bed, the action, or the number of instances (Saywitz, 1995). Finally, double negatives and unclear references are problematic, especially with children (Brennan & Brennan, 1988). A question, such as, "Shouldn't you have stayed away from him?" is likely to confuse a child and could easily be rephrased as "Do you think you should have stayed away from Bob?" Compounded utterances, lengthy sentences, unclear references, and double negatives are deeply rooted to the judicial process and the art of cross-examination. However, Saywitz (1995) indicates that "grammatical constructs play an important role in eliciting reliable responses from children" (p. 118).

Comprehension

Children's abilities to monitor their comprehension and identify misunderstandings are taxed heavily in the courtroom. For example, Saywitz and Snyder (1993) found that children being questioned about a past event may try to answer questions they do not fully understand. Children respond to the part of the question that they understand, typically the beginning or end of a lengthy question, knowing that a response is expected. Further, children follow common rules of communication, such as being a good conversational partner, in the courtroom and fail to recognize that the lawyers are operating under a different set of sociolinguistic principles (Saywitz, 1995, see p. 118). Children assume that their communicative partners are sincere and telling the truth unless they choose to indicate otherwise by linguistic devices such as irony and sarcasm or by tone of voice (Bates, 1976; Snyder & Lindstedt, 1994, see p. 22). In court, however, attorneys seem to

be permitted to deny the truth of the testimony offered by calling the communicator's sincerity into question (Brennan, 1995), thus contributing to a "communicative climate that does not bolster communicative fluency" (Snyder & Lindstedt, 1994, p. 22).

Snyder and Lindstedt (1994) suggest that attorneys' willingness to be impolite and insincere in the courtroom can confuse children which, in turn, has an impact on their communicative competence. "The attorney may introduce communication with warm, pleasant remarks and questions, but objections made during the course of a trial often interrupt a witness's account and are disconcerting to the child" (Snyder & Lindstedt, 1994, p. 22). Ferguson (1970) and Ryan (1992) noted that most types of interruption are perceived negatively by the individual giving the account and can, in turn, impact adversely on that individual's willingness and ability to continue speaking. "Interruptions, compounded with the adversarial position taken during examination of the witness can cause confusion and stress in children" (Snyder & Lindstedt, 1994, p. 20). Snyder and Lindstedt (1994) suggest that these violations may interact with the child's level of metacognitive development and affect their performance. A child that has not yet acquired the ability to acknowledge that others may hold a different mental perspective from him- or herself may have difficulty dealing with the perception that an adult questions his or her truthfulness (Flavell, 1988; Wellman, 1990). Thus, this confusion can interact with the communicative factors inherent in the judicial context and have an impact on their communicative effectiveness (Snyder & Lindstedt, 1994).

Comprehension Monitoring

“Comprehension monitoring occurs when a witness realizes that he or she has failed to comprehend the question and responds in such a way that the attorney has been made aware that there is a problem in communication”(Snyder & Lindstedt, 1994, p. 17). These skills begin to develop during the preschool years and continue to improve with age (Dickson, 1981; Flavell, 1981; Revelle, Wellman, & Karabenick, 1985; Singer & Flavell, 1981). For example, in naturalistic settings, preschoolers start to request clarification of adult discourse directed to them both verbally and nonverbally (Cosgrove & Patterson, 1977; Gallagher, 1981). In contrast, studies have found that children aged 3 to 8 years of age have difficulty recognizing when they have failed to understand a question based in a complex and unfamiliar setting (Beal & Flavell, 1982; Revelle et al., 1985). In such situations, they often fail to request clarification from adults (Asher, 1976; Flin, Bull, Boon & Knox, 1992; Garbarino & Stott, 1991; Markman, 1977; Patterson, Massad, & Cosgrove, 1978; Saywitz & Snyder 1993). This developmental limitation is particularly applicable in the unfamiliar courtroom where attorneys may ask questions containing strange vocabulary, complex sentences, and unfamiliar content (e.g., ratio estimates).

Recent studies have focused on teaching children to identify non-comprehension and to ask for rephrasing of complex or lengthy questions (Bull, 1995; Fisher & McCauley, 1995; Saywitz et al., 1991; Saywitz & Snyder, 1993). In a study by Saywitz and Snyder (1993), 186 children aged 6 and 8 were interviewed about a past event using questions that were both easy and complex. One group of children was instructed to inform the interviewer when they did not understand a question. Their responses were

significantly more accurate than those of children in a control group who were given only motivating instructions to do their best. A third group of children was prepared for the interview with an intervention that involved practicing, with feedback, and asking for rephrasing of questions about a videotaped vignette they had viewed earlier. Later, their reports of what they had seen were significantly more accurate than those from children in the other two groups.

These results suggest that the enhancement of children's abilities to detect and cope with non-comprehension through instruction and preparation can help to reduce inaccuracies (Saywitz, 1995). However, it would be far simpler and more fitting to place the responsibility for conducting comprehensible examinations on the court rather than burden children with the responsibility of having to ask for question repetition. There is good precedent for making the court accountable for achieving just outcomes. For example, the court will not enforce a contract between a five-year-old and an adult that exchanges the child's future lifetime earnings for a dish of ice cream. This is because the fundamental problem with such a contract is the fact that the adult maintains a "superior bargaining power" over the five-year-old and the court has a legal responsibility to protect the child against the more mature mind of the adult (see *Toronto Marlboro Major Junior "A" Hockey Club et al. v. Tonelli et al.*, 1979, for case law). In order for fundamental justice to be served, the witness must have the capacity to answer the question posed, and a child, by definition, must be protected against incomprehensible examination questions maintaining the cognitive imbalance between child and adult.

Rationale for the Present Research

The ability of children to give testimony has been widely researched (Fivush & Hammond, 1990; Flin et al., 1992; Johnson and Foley, 1984; Hammond & Fivush, 1991; Harris et al., 1991; Goodman & Reed, 1986; Peterson, 1996; Sivan, 1991; Saywitz et al., 1991; Saywitz, 1995; Spencer & Flin, 1990). However, studies examining child witness issues in a developmental context, such as the investigation of the most developmentally appropriate ways to elicit accurate information from children, are much less prevalent (King & Piper, 1990; Perry & Wrightsman, 1991; Saywitz et al., 1991). Moreover, few studies have examined actual courtroom testimony to ascertain if courtroom practices and legal tactics exist which can interfere with children's abilities to provide accurate and reliable testimony (Brennan, 1995; Renner et al., 1997).

In an attempt to address these issues, qualitative and quantitative studies were developed. The qualitative component (Part 1) explored the proposition that the Canadian legal system may be insensitive to the child witness. Through the investigation of 58 examples of child sexual abuse testimony, examples of developmentally inappropriate lines of questioning in competency assessments and attorney examinations were gathered. In addition, questions that involved abstract concepts, or that implied that the child witnesses were sexual, or questions that exceeded the cognitive comprehension skills of the child witnesses were analyzed. The purpose of this analysis was to determine if the court failed to acknowledge the differing developmental capabilities of child and adult witnesses and thus, prevented children from providing accurate and complete evidence (Bala, 1991;

Goodman & Helgeson, 1988). Because the system of justice in Canada today is designed for adults, it may be inherently biased against child witnesses (Bala, 1991).

The quantitative component of this research (Part 2) investigated the reliability of child testimony in the face of leading as well as developmentally appropriate and inappropriate questioning. Two sessions, a mock preliminary hearing (comprised of a competency assessment and an examination period) and a mock trial, were designed to identify whether constraints existed to eliciting accurate testimony from children based on developmental levels. The mock competency assessment required that the participants provide a definition for a number of legal concepts, including a solemn affirmation and an oath. Following the competency assessment, the children viewed red and green lights turning on and off in a variety of sequences and were asked to make time estimates based on the light patterns. The children's time estimates were elicited by a series of questions that either matched the child participants' cognitive abilities, exceeded their cognitive stage, or were leading in nature. The goal of the study was to demonstrate whether eliciting an accurate response from a child is a function of the appropriateness of the developmental level of the question posed.

The second session, consisting of a mock trial, began after a delay of 6 to 8 weeks. The same children were asked to recall the length of time the red and green lights were on as shown to them during the preliminary hearing. The participants' time estimates were evoked by the examination questions used several weeks previously. The purpose of the mock trial was to permit the longitudinal exploration of the impact of developmentally

appropriate, leading, and developmentally inappropriate questions to elicit children's accurate recall of the timing of a previous event.

By applying developmental psychology to the legal process in this research, it was hoped that the methods for eliciting accurate testimony from child witnesses could be understood and the practices which were insensitive to their developmental needs could be identified. With this knowledge in hand, steps can be taken to ensure that the developmental barriers facing children on the witness stand can be overcome; permitting children to testify at their optimal level of performance. By improving the quality of evidence that children can provide, the goal of fundamental justice will be advanced, protecting children from sexual predators and adults from false charges.

CHAPTER 2

Qualitative Research

(Part 1)

Rationale

The qualitative section of this research was designed to examine actual courtroom testimony to evaluate the likelihood that current courtroom procedures and legal tactics are insensitive to the needs of child witnesses and interfere with children's abilities to provide credible testimony (Bala, 1992; Brennan, 1995; Renner et al., 1997). Although groups supporting children's rights have maintained that courtroom practices have been unsympathetic to children for years, it has not been until recently that researchers have substantiated these informal observations (Brennan, 1995; Sas et al., 1991; Renner et al., 1997). Further, few studies have actually consulted courtroom testimony in their examination of children's credibility issues. Those that have, however, unanimously agree that child credibility is reduced by insensitive courtroom procedures (Brennan and Brennan, 1988; Brennan 1995; Renner et al., 1997; Sas et al., 1991).

Method

To aid in the assessment of whether the Canadian legal system has failed to show respect for the developmental capabilities of the child witness (Bala, 1992), two different, but related sources were consulted. Firstly, the official public court records for 54 child sexual abuse cases from the Halifax court system were examined. These court records consisted of factual information about each of the cases, such as the dates, times, places, offender and victim characteristics, whether the child's testimony was sworn or unsworn as well as the case outcomes. The coding system used for the court records has previously been applied to adult cases (see Renner & Yurchesyn, 1994; Renner et al., 1997; Renner, Parriag, & Park, 1997; Yurchesyn, Keith, & Renner, 1992). Secondly, the

actual trial testimony from the 54 child sexual abuse cases was examined. In 4 of the 54 cases, the testimony of two child witnesses was presented such that the testimony of 58 child witnesses was reviewed. Twenty-nine cases were available on audio tape and written transcripts were provided for the remaining 25 cases. The testimony of each of the 58 witnesses aged 4 to 18 (5 male, 53 female) was coded for quantitative analysis.

Access to the court records and actual trial testimony for the child sexual abuse cases was made available to Dr. Edward Renner and his students as part of a research program that began over a decade previously at Dalhousie University. The 54 child sexual abuse cases examined were presented at the Halifax Provincial Law Courts from 1988 to 1992, post Bill C-15. The transcripts, whether written or on audio tape, contained the trial testimony of each child. In other words, the transcripts covered interactions between the Crown and the sexual abuse victims, the Defense and the sexual abuse victims, and any interjections given by the judge during direct- or cross-examination. Closing arguments, judicial rulings, and competency assessments, however, were only captured for a few of the cases.

The process of coding the child testimony involved reading each transcript or listening to each tape with a predefined list of 21 categories of questions and tactics that might be used by either the Crown or the Defense (See Appendix A), for a total of 42 separate scoreable activities (Renner et al., 1997). These categories reflect an exhaustive list of themes and tactics used by the Crown and Defense as identified in previous research (Renner et al., 1997; Renner & Yurchesyn, 1994; Yurchesyn et al., 1992). Coding questions and answers into one of the 21 categories occurred by comparing the trial

testimony with the examples in the classification scheme. Specifically, continuous streams of testimony were broken into scenarios based on their fit with a question or tactic category. Whenever a run of questions matched one of the predefined categories, the coder placed a tick mark on the summary data sheet. For example, if the Crown asked about when the child told someone of the abuse, a check mark was placed under “Recency of Report/Crown,” and so on for each category for each lawyer. Of particular interest to this study were seven of the 21 categories dealing with placing responsibility for sexuality on the child (see Appendix B). In addition to coding the relevant categories, all examples of the tactic of fixing children as responsible for their sexuality were transcribed to provide an illustration of the language used (Brennan, 1995).

To assess the reliability of the coding procedure, two independent raters were asked to score eight randomly selected cases in their entirety from the sample of 58. A full eight cases were selected due to the size of the written and audio taped transcripts, each representing an hour or more of testimony. A further 20 cases were randomly selected for reliability analysis with variably allocated portions of the testimony examined by the raters. Inter-rater reliability for these 28 cases was 80%.² Raters could readily identify and agree on the category for the scenarios which formed the core of the case. A sequence that ended with “Well, did you lie then or are you lying now?” was always classified as

² Inter-rater consistency was computed by counting the number of agreements (A) and disagreements (D) among the raters and calculating the percent agreement $[A/(A+D) \times 100]$. An agreement occurred when the raters matched both the category and the run of questions ($n = 210$). There were 50 instances in which disagreements took place. Disagreements did not occur due to raters categorizing a scenario as something it was not; rather, all 50 disagreements were the result of raters failing to choose the same run of questions for categorization.

Impeachment, and "Did you scream?" was easily categorized as Resistance. However, the contradictions were largely due to one observer choosing an illustration that was below the selection threshold for the other rater despite the fact that both raters agreed on the category placement.

To explain, continuous data creates two issues of reliability: threshold and consistency. In order to establish these two issues, raters were asked to perform two concurrent tasks: first, to find and agree on the existence of discrete scenarios from a continuous transcript filled with potential scenarios, and second, to classify each scenario into one of 42 categories, 21 for each lawyer. Raters did not have a problem identifying the category for the scenarios such as resistance or impeachment. However, problematic classification involved the filler questions that served as transitions between scenarios, and misguided efforts that started in one direction but went nowhere. Often, these were questions that seemed to buy time while the lawyer prepared for the next important series of questions. For example, a series of questions ending with "And about what time was that!" may have been an attempt at impeachment that did not work, or a weak insinuation of lack of credibility. Thus, the most difficult task for individual raters, from the standpoint of reliability, was to establish a consistent and uniform threshold for including or excluding these marginal examples. However, the threshold for the items around which the Crown and the Defense built the core of their case was easily established, as these items were generally clear and identifiable to all the raters.

In addition, the audio tapes and transcripts were reviewed qualitatively for incidents of developmentally inappropriate questions asked during direct and cross-

examination as well as during competency examinations. When a child under the age of 14 is called as a witness, the judge must conduct an “inquiry” to determine whether the child is “competent” to testify (Bill C-15, 1988). The child’s competency is based on his or her ability to understand the meaning of an oath for sworn testimony, or to understand the meaning of telling the truth for unsworn testimony. For this analysis, the number of cases was restricted to 29, those in which the children were 4 to 13 years of age. As most cognitive abilities (e.g., number knowledge, height estimation, comprehension of speed, etc.) become fully realized by the ages of 14 to 16, the issue of developmentally inappropriate questions is of particular concern for children in this younger age range. Furthermore, competency exams are not conducted on witnesses older than fourteen years of age as it is assumed that adolescents are capable of understanding the meaning of an oath and thus able to provide reliable sworn evidence.

All examples of competency examinations were transcribed and examined for the use of abstract concepts which may have exceeded the children’s developmental capabilities (Brennan & Brennan, 1988; Melton et al., 1992; Myers, 1996; Saywitz et al., 1990; Warren-Leubecker et al., 1989). For example, Saywitz et al. (1990) found that child witnesses often do not understand the terminology used in the courtroom. Rather than ask for clarification, the children will misinterpret the foreign legal term for a familiar word and respond accordingly, leading to confusion in the courtroom. Therefore, developmental research investigating children’s misinterpretations and comprehension problems with legal terminology were used as a benchmark in measuring the developmental appropriateness of the competency assessment vocabulary.

Furthermore, all direct and cross-examination questions involving time, distance and size estimations were transcribed for subsequent categorization according to whether the child witnesses were old enough to have mastered the cognitive task which the court was asking them to perform (Friedman, 1982; Piaget, 1970). For example, research suggests that children are unable to understand or provide accurate quantitative information concerning time estimation before the age of 13 or 14 (Levin, 1992; Piaget, 1970). Therefore, the testimony of children younger than 14 who were asked to provide time estimations was transcribed and monitored for incidences of developmental inappropriateness. Two independent raters scored ten of the 29 cases selected at random as well as variably allocated portions of testimony from another 5 cases. Inter-rater agreement for identifying instances of developmentally inappropriate questions in direct or cross-examination as well as competency assessments was 87%.³

The transcriptions of testimony relating to time, distance, and size estimations provided an initial pool of material from which to evaluate the frequency of these lines of questions, and to make judgments on the basis of developmental psychology research about their appropriateness for the developmental level of the child. This procedure was

³ Inter-rater consistency was computed by counting the number of agreements (A) and disagreements (D) among the raters and calculating the percent agreement $[A/(A+D) \times 100]$. An agreement occurred when raters identified the same questions or abstract concepts and whether it was developmentally appropriate or not ($n = 199$). The abstract concepts were easily identified and categorized correctly ($n = 40$). However, for the age inappropriate questions, there were 29 instances in which disagreements took place. Disagreements did not occur due to raters categorizing a scenario as developmentally inappropriate when it was not; rather, all 29 disagreements were the result of raters failing to choose the same run of questions for categorization.

primarily qualitative, although simple descriptive quantitative statistics were calculated. It was expected that through the examination of court records and child testimony in the qualitative component of this research, evidence of legal procedures that apply adult standards to children's testimony (e.g., holding children responsible for their sexuality and questions requiring adult cognitive skills to answer) would be found.

Results and Discussion

Description of the Cases

The quantitative coding of the court records showed that the accused was charged with Simple (Level I) Sexual Assault under the Criminal Code in all 54 cases. This is the least serious charge available to the Crown, and is laid when there is no physical harm to the victim and when no weapon was used (Level II), and when the victim's life was not endangered (Level III). This finding is not unusual as child sexual abuse cases are frequently under-charged (Roberts, 1990) which most often occurs if the Crown does not have extensive corroborative evidence; a frequent occurrence in child cases. In turn, almost half of the 54 cases (48%) ended in conviction. This data is consistent with the child sexual assault literature indicating that of those sexual abuse cases that do enter into the trial process, a relatively low percentage end in conviction (Renner et al., 1997; Statistics Canada, 1993).

Does the Court Show Respect for the Developmental Level of the Child Witness?

The Issue of Responsibility

Asking age inappropriate questions of child witnesses in the courtroom may first appear to be reasonable because the court has implicitly used the context of adult sexuality

for trying cases of child sexual abuse (Brennan, 1995). However, the result of doing so has shifted responsibility for the sexual act from the accused adult to the child witness. All of the content themes found in the child cases (see Appendix B) are based on “myths” about the nature of sexual assault which are used in adult cases to try to show that adult women were responsible for and/or consented to the sexual act (Renner & Yurchesyn, 1994). The assumption is made that if an adult woman did not consent, there would be physical evidence of resistance, lack of initiation, and a recent report. In a parallel fashion in the child cases, whenever possible the Crown would emphasize good adjustment before the abuse, bad adjustment after the abuse, that the accused removed the child’s clothing, that the child resisted, was of good character, reported the abuse quickly, and did not initiate contact with the accused. Whenever possible the Defense would emphasize the opposite. All of these differences in emphasis between the Crown and Defense were statistically significant at $p < .001$ (see Table 2).

Of particular interest in Table 2 is the high frequency of the category “No Reference.” in which both the Crown and Defense selectively pick the themes they will focus on based on the circumstances of the case. Both use adult themes which support their position and ignore themes that do not. Because the two largely act in a complementary fashion, the impression is given that the actual trial is a script waiting to be played out based on myths about adult sexuality.

Table 2

Frequency of Use of Adult Sexual Assault Themes by the Crown and Defense

Variable Name	Positive to Victim	Negative to Victim	No Reference	Statistical Test and Probability Level
Psychological Adjustment Before/Crown	18 (good)	6 (bad)	34	$\chi^2(2, N = 116) = 17.40,$ $p < .001$
Psychological Adjustment Before/Defense	0 (good)	20 (bad)	38	
Psychological Adjustment After/Crown	24 (bad)	2 (good)	32	$\chi^2(2, N = 116) = 17.91,$ $p < .001$
Psychological Adjustment After/Defense	3 (bad)	10 (good)	45	
Clothing Removed/Crown	18 (adult)	2 (child)	38	$\chi^2(2, N = 116) = 18.90,$ $p < .001$
Clothing Removed/Defense	2 (adult)	10 (child)	46	
Resistance/Crown	34 (yes)	3 (no)	21	$\chi^2(2, N = 116) = 34.45,$ $p < .001$
Resistance/Defense	6 (yes)	20 (no)	32	
Character/Crown	18 (good)	1 (bad)	39	$\chi^2(2, N = 116) = 46.94,$ $p < .001$
Character/Defense	0 (good)	30 (bad)	28	
Recency/Crown	19 (recent)	29 (delayed)	10	$\chi^2(2, N = 116) = 28.12,$ $p < .001$
Recency/Defense	2 (recent)	32 (delayed)	24	
Initiation/Crown	20 (adult)	3 (child)	35	$\chi^2(2, N = 116) = 19.67,$ $p < .001$
Initiation/Defense	1 (adult)	18 (child)	39	

The category of resistance provides an example of the complementary use of themes to shift some degree of responsibility for sexuality from the accused adult to the child witness. In 59% of the child cases, the Crown claimed that the child offered some form of resistance. For these cases, the Defense either ignored the claim (56%) when there was corroborative evidence, challenged the claim (29%) by the Crown, or partially agreed with the Crown (15%). The Defense, on the other hand, used the theme of lack of resistance in 35% of the cases, to which the Crown ignored the claim 40% of the time (if lack of resistance was clear, such as the child returning to the home of the accused), and challenged the claim of the Defense in only 10% of the remaining cases.

For the theme of who initiated the contact(s) when the abuse was alleged to have happened, the Crown argued it was the accused in 34% of the cases. The Defense usually ignored the claim (70%) or in the remaining cases argued that it was the child. In turn, the Defense claimed that the child initiated the contact in 31% of the cases. In these instances, the Crown only challenged the claim made by the Defense 33% of the time. A similar pattern of results also applied to psychological adjustment before the incident (a trustworthy child or not) and psychological adjustment after the incident (if there was an emotional problem the abuse must have caused it, or if there was no emotional problem afterward no abuse occurred), clothing (who removed it), character (is this a good child or a bad seed), and recency of complaint (was it reported immediately). These results suggest that there is seldom conflict between the Crown and the Defense. Each lawyer appears to be selective among the major themes that define adult sexuality to either bring

out the evidence if it supports their case, or ignore it when it does not. In essence, the Crown and Defense seem to engage in a “game” in the courtroom.

Despite the fact that child witnesses may be held responsible for their sexuality by judges, the Crown or the Defense (Renner et al., 1997), jurors (Isquith et al., 1993), and the legal doctrine itself (Renner et al., 1997; Roberts, 1996), the law is very clear on the issue of responsibility in child sexual abuse cases. When the child is under the age of 14, the child is legally incapable of consenting to sexual activity (Bill C-15, 1988). Therefore, full and complete responsibility rests with the adult to refrain from all sexual relations with a child. Unfortunately, the preoccupation of the legal process with the capacity of the child to objectively answer questions about recency of complaint or contact initiation has distracted attention away from the fact that these issues are legally irrelevant in cases of child sexual abuse.

Developmental Insensitivity and Competency Examinations

Qualitative analysis of competency examinations taken from the child testimony indicated a pattern in judicial assessment procedures for sworn and unsworn testimony. Children were asked the following sequence of questions to determine whether they met the requirements to provide sworn or unsworn testimony. Typically, the judge began by asking the child if he or she knew what a solemn affirmation was, then the child was asked to provide the definition of an oath, a promise, the truth, and finally a lie. Further, the children were asked about the ramifications of lying. All of the children for whom there were competency examinations in the transcripts ($N = 8$) failed to understand the meaning of a solemn affirmation and an oath. Once queried about the meaning of a promise, the

truth or a lie, the majority of the children could demonstrate an understanding of all three concepts (75%). The children also indicated that lying or not telling the truth was a bad behaviour and those who did so would be subject to punishment. Because an understanding of an oath or solemn affirmation is required for testimony to be sworn, none of the children in these eight cases gave sworn testimony. In fact, an examination of the official court records revealed that not one of the 29 witnesses aged 4 to 13 was deemed competent to provide sworn testimony indicating an inability to understand or define these abstract concepts for their presiding judges (Brennan & Brennan, 1988; Melton et al., 1992; Saywitz, 1989; Warren-Leubecker et al., 1989). Although it is recognized that 8 competency examinations represent a very small sample from which to draw conclusions, the fact that all 29 witnesses in our sample gave unsworn testimony suggests that the requirements for being sworn are beyond the cognitive capabilities of child witnesses. Furthermore, the procedure of having a child "sworn in" contributes little to the reliability of the testimony as it has little relevance to the information a child is expected to provide the court, or the veracity of that information (Bala, 1992; Saywitz et al., 1990; Saywitz, 1995).

The legal process must shift the responsibility of proving competency from the child to the court to ensure that questions asked are ones the child is competent to answer. In essence, the "threshold" that has been placed on the child witness via the competency examination needs to be removed and transferred, instead, to the direct- and cross-examination questions asked of children in the courtroom. By viewing witness reliability as a function of the child alone, the court has absolved itself of its responsibility to

facilitate competent testimony from the child witness. Communication in the courtroom and the elicitation of reliable testimony is a shared activity and child witnesses are the disadvantaged communicative partners (Snyder et al., 1993; Snyder & Lindstedt, 1994). A preliminary assessment procedure designed to evaluate children's truthfulness and ability to provide competent testimony appears to serve little purpose other than to discredit the child from the outset of the courtroom proceedings and absolve the court of responsibility in the process of eliciting competent testimony.

Insensitivity to Cognitive Developmental Stages

Qualitative analysis of direct and cross-examinations was performed to discover whether developmentally inappropriate questions were asked of all the child witnesses aged 4 to 13 ($N = 29$) for the three cognitive concepts examined. Results showed that on average, three examples of inappropriate lines of questioning by the Defense and 1 example by the Crown were found per case, where the child's "ceiling" of comprehension for size, distance, and time estimations were exceeded. Although an average of four age inappropriate questions asked of each child witness in our sample may appear insignificant in contrast to the sheer number of inquiries put to witnesses in the courtroom, it is important not to overlook that these averages are derived from three very limited question categories. In fact, questions requiring size, distance, and time estimations of the children represented only a fraction of the age inappropriate questions posed. Many other examples of developmentally inappropriate questions were identified, such as asking the child witness to provide speed or height estimates. In other cases, questions involving complex vocabulary, double negatives, or leading phrases were used. Although not

discussed in this research, this expanded range of examples will be used for developing a more inclusive conceptual framework for future research. Therefore, the average of four developmentally inappropriate questions asked of the child witnesses in this sample is representative only of the three categories (size, distance, and time estimations) investigated, not the cases in their entirety.

Statistical analyses revealed that the Defense was significantly more likely to use age inappropriate questions when examining the child witnesses than the Crown, $\chi^2(1) = 135.21, p < .001$. See Table 3 for frequencies. When one considers the purposes of cross-examination: “to destroy or weaken the evidence of your opponent’s witnesses, and/or to undermine their credibility” (Hyam, 1990, p. 84), one could argue that the use of developmentally inappropriate questions by the Defense is a legal strategy. The use of age inappropriate legal tactics would be an effective means of highlighting the implausibility or weakness of the child’s testimony. When faced with these incomprehensible questions, the children may refuse to answer out of confusion or say “I don’t know”, as did the majority of the children in this sample (Burgess & Holstrom, 1978; Kuehnle, 1996; Parker, 1982).

Table 3

Frequency of Use of Age Inappropriate Questions by Crown and Defense

Lawyer	Size Estimation	Distance Estimation	Time Estimation	<u>N</u>
Crown	1	1	39	41
Defense	20	15	64	99

Examples of these inappropriate questions included asking a ten-year-old, “How wide are the windows at Pizza Joe’s?” and when no answer was forthcoming, “Compare it to the screen in front of you. How wide would the windows be in comparison to the screen?” (Case #11517). Similarly, an eight-year-old was asked, “Do you know how long it was the day before you went downstairs to get the bicycle horn that you had last seen Mr. R.?” (Case #11352). The question is convoluted, compounded and requires quantitative time estimation skills (see Table 1) that could only be reasonably expected of a teenager or adult (Briere et al., 1996; Carter, 1991; Reich, 1986).

Furthermore, the majority of the defense lawyers who used developmentally inappropriate questions in this sample followed their time, size, or distance estimation inquiries with references to the preliminary hearing. This tactic of impeachment, highlighting contradictions in a witness’ testimony between the preliminary hearing and trial, is a common strategy used in the cross-examination process and not normally an issue. However, the use of this strategy by the defense lawyers in this sample provided an opportunity to evaluate some of the questions asked of the children during the preliminary hearing. It was revealed that the Defense also asked similar developmentally inappropriate questions during the preliminary which raised concerns about whether these cognitively unsuitable questions were asked deliberately at the preliminary hearing and at the trial as a tactic designed to encourage conflicting or inaccurate responses that could be used to impeach the child witness as in the following example (Case #11214):

Defense (D): You've known Doug for a couple of years.

Child (C): No

D: You didn't?

C: No

D: Are you sure about that?

C: Yes

D: It was just a month or two prior to this thing having taken place that you first knew Dougy, isn't it?

C: Yes.

D: Could you go to page 1 of your statement please, David?

D: Right in the middle there is a question that says, When did you first meet Dougy?

C: Yes

D: And is your answer, last month was the first time that I went to his house. Right?

C: Yes.

D: And the next line reads I knew him for a couple of years before that. Doesn't it?

C: Yes

D: So you lied to the police!

C: ...(no response)

D: or are you lying to us?

C: No.

D: Well, you can't have it both ways David!

In this example the issue is not one of lying, rather the discrepancy is the result of a child complying with the demand of an adult to answer a developmentally inappropriate question involving quantitative units of time. The line between inaccurate statements that occur because of lying and those that occur because of inappropriate questioning practices appears to have become blurred. One could argue that the court provides a legally permissible way for the Defense to abuse the child by allowing inappropriate questions. Seldom, if ever, are numerical details, or the physical size of the window at Pizza Joe's, relevant to the central issue of whether sexual abuse took place. Rather, these numerical details seem to serve the sole purpose of discrediting a child witness by use of the "tricks" of cross-examination, pitting the capacity of the mind of a professional adult against the mind of a child.

Despite the fact that the Defense was significantly more likely to ask age inappropriate time, size, and distance estimation questions, the Crown was also guilty of this practice. On average, 1 cognitively inappropriate question was found per case. For example, an eleven-year-old child who had been sexually abused by her father almost daily for many years was asked how long *each* of the abusive incidents would last; an unreasonable question, even for an adult (Case #11376). Furthermore, one Crown asked of his eight-year-old witness (Case #09660), "How much time did all this take?" thus, exposing his own witness to a continuation of developmentally inappropriate cross-examination questions by introducing a quantitative time estimate as part of the direct examination

The finding that Crown prosecutors also used age inappropriate questions in their direct examinations undermines suspicions that defense attorney's use these questions as part of deliberate strategy to win their case. Although other researchers have found evidence that defense lawyers use developmentally inappropriate tactics to undermine the child complainant's credibility (Brennan, 1995; Sas et al., 1993), this research cannot entirely support such a conclusion. Ignorance of children's cognitive capabilities may have prompted the use of age inappropriate questions in the courtroom. Research has shown that judges, for example, can be unaware of children's inabilities to answer confusing questions involving double negatives, large words, and complex phrases (Sas et al., 1991). Whether deliberate legal strategy or uninformed examination practice, however, developmentally inappropriate questions violate the child's right to legal protection and

promote the appearance of the child as incompetent; legitimizing the need for competency assessments in the eyes of the court (Park & Renner, 1998).

In spite of the fact that defendants have the constitutional right to confront even the youngest of accusatory witnesses via the cross-examination process, the practice of doing so in a way that exposes the child to the same form of exploitation by an adult that the trial itself is intended to redress, is an issue of fundamental justice. The legal system has overlooked the fact that effective communication and the elicitation of reliable testimony from children “depends on adults’ abilities to talk to children in a non-biased manner at the child’s level of understanding of conversational rules and concepts, accounting for the child’s age, vocabulary, and linguistic skill”(Snyder et al., 1993, p. 40). Maximizing children’s insecurity and underdeveloped cognitive competencies in the courtroom not only influences their performance, but their credibility as witnesses.

CHAPTER 3

Quantitative Research

(Part 2)

Mock Preliminary Hearing

Rationale

The qualitative portion of this project (Part 1) revealed that the Canadian legal system failed to respect the developmental capabilities of child witnesses by means of age inappropriate courtroom practices. The children were asked questions that were too difficult for them to understand in a competency investigation or during courtroom examinations. In an attempt to determine the interrogative methods best suited to eliciting “competent” testimony from child witnesses in the courtroom, a study consisting of two sessions was created (Part 2).

This study permitted the examination of the accuracy of the children’s responses, facts that could not be gleaned from the tapes and transcripts used in the qualitative section. Furthermore, the quantitative format permitted the use of an empirical process similar to that used in the courtroom. Therefore, the first session, outlined in this chapter, mimicked a preliminary hearing such that participants were initially assessed for competency and then subjected to an examination period. The second session occurred following a delay of 6 to 8 weeks, as in a trial, and replicated the examination questions used in the mock preliminary hearing. The results of this second session, the mock trial, will be discussed in the following chapter.

The purpose of the mock preliminary hearing was twofold. Firstly, it was of interest whether the concepts used during competency assessments to establish a child’s testimony as worthy of being sworn or unsworn, were developmentally inappropriate. Although the qualitative section did yield this finding, the small sample size (N = 8 competency assessments) limited conclusions and prompted additional investigation of the

issue. Secondly, the types of questioning techniques that can be found in the courtroom during examination periods (leading, developmentally inappropriate) as well as alternative questioning techniques (developmentally appropriate) were evaluated for their ability to elicit accurate testimony from children.

In Section 1 of the mock preliminary hearing, a competency assessment was conducted such that the children were first queried on their understanding of the concepts used in competency examinations and their responses were compared to dictionary definitions. This approach provided a more standardized measure of accuracy than the traditional subjective process whereby a judge, with an unknown level of developmental knowledge, decided if the child's definition was satisfactory for sworn or unsworn testimony (Dziech & Schudson, 1989; Whitcomb, 1986).

In Section 2, the children were asked a variety of examination questions from which the accuracy of their responses could be assessed. Few studies have examined the types of questions that promote accurate responses from children, however, Saywitz et al. (1991) suggest that accurate information is best elicited from children when the question is matched to the child's developmental level. Similarly, the work of developmental psychologist Jean Piaget indicates that children's cognitive skills, and ultimately the veracity of their responses to examination questions, are dependant upon their stage of intellectual development (Piaget & Inhelder, 1973; Piaget, 1928). Each stage and its resulting cognitive achievements are subject to a ceiling in complexity such that children's optimal intellectual performance changes only gradually with time (Case, 1992; Case et al., 1993). Therefore, children in this study were asked a series of questions that corresponded

to and failed to adhere to their developmental abilities and the accuracy of their responses was explored.

Of further interest in Part 2, was the impact of leading questions on the accuracy of children's testimony. Examination of the courtroom testimony in the qualitative section identified additional examples of potentially developmentally inappropriate questions, including the use of leading questions by lawyers. The practice of allowing leading questions in the courtroom presents problems for children who can be vulnerable to exploitation by an adult due to their less developed mental capacities (Ceci et al., 1987; Goodman et al., 1991; Goodman & Reed, 1986; Saywitz et al., 1991). It is for this reason that protocols have been developed to guide police investigators in the use of interrogation techniques that do not influence children's statements (see Kuehnle, 1996 and Hornick & Paetsch, 1995, for protocols). Once the courtroom process begins, however, the concern for influencing a child's testimony appears to be of little significance. Defense lawyers may interrogate child witnesses using a variety of techniques and sometimes appear free to "trick" children into responding inaccurately through the use of leading questions in the courtroom (Adair, 1992; Cassel, 1991; Eugenio, Buckhout, Kostas & Ellison, 1982; Levy, 1991). As a result, the child witness can lose the protection afforded a child outside the courtroom and may be subjected to a secondary form of abuse through the very process designed to protect them.

Leading questions in the courtroom are also a concern as their use has been found to corrupt the memories of witnesses. The memories of both children and adults are vulnerable to the suggestions proposed in leading questions, particularly after a long delay

following the original memory (Loftus, 1979). Considering that delays between courtroom appearances and sexual victimization experiences may be weeks, months, or years for child witnesses (Farrell, 1981; Weinberg, 1955), the courtroom can be an ideal forum for the acceptance of suggestion. This is especially true of peripheral detail (Loftus, 1979; Goodman & Reed, 1986) and questioning environments that are intimidating (Ceci et al., 1987; Lepore, 1990). Thus, forceful, repeated interrogations that may or may not focus on peripheral or innocuous details can be particularly damaging to children's testimony (Saywitz et al., 1993). Therefore, the significance of leading questions on children's accuracy was investigated in addition to the impact on accuracy of developmentally appropriate and inappropriate questioning techniques.

Children's abilities to provide accurate time estimates in the context of alternate questioning techniques were also considered. Time estimation skills and the ability to testify accurately about the time of an event can be of crucial importance in sexual abuse investigations. "Children may be asked about such information through questions that require knowledge of conventional systems for measuring time and the failure to be able to answer such questions can seriously jeopardize the impression of witness's competence" (Saywitz et al., 1991, p. 683). However, time is a difficult concept for children to master (Singer & Reveson, 1978). Children develop concepts of time and time measurement gradually (Davies et al., 1989; Friedman, 1982). In fact, Piaget (1970) has shown that children's ideas regarding time consolidate later in childhood by the age of 13 to 14 which has implications for children's response accuracy to questions demanding ratio estimates of time.

Therefore, the procedure that was used in the mock preliminary hearing was based on typical courtroom examination questions that: a) required conventional systems for measuring time such as providing a time estimate in seconds or minutes; b) used more age appropriate methods of determining time; and, c) employed leading methods of determining time. This format provided an objective means for assessing the claim that “courtroom methods of collecting evidence are inimical to the developmentally sensitive process necessary to elicit information from children and thus, reduces the optimal level of children’s responses” (Saywitz, 1995, p. 114).

Part 1-Mock Competency Assessment

Method

Participants

A sample of 90 children was used for the competency assessment. Of these 90 participants, 46 were aged 7 to 8 and 44 were aged 10 to 11. Initially, only children participated as the developmental appropriateness of courtroom examination questions was the focus of the study. However, Bala’s (1992) speculation on the ability of adults to define the concepts used in competency examinations accurately, prompted the later inclusion of a small adult sample. These 18 adult participants ranged in age from 21 to 50. Therefore, the total competency assessment sample consisted of 108 participants comprised of 56 females and 52 males.

Adult respondents were recruited from the Canada Trust Company and provided written consent prior to participating (See Appendix C for consent forms). Child participants were solicited through the Ottawa-Carleton Regional Girl Guides and Youth

Scouting programs. Consent was obtained from the children's parents as well as the participants themselves (See Appendix D for consent forms). The participants were predominately middle class and included on the basis of English being their first language.

Materials

A standardized mock competency assessment was constructed based on material transcribed from the qualitative component of this research project (see Appendix E). As in the actual testimony, the mock competency assessment required the participants to demonstrate an understanding of a solemn affirmation, an oath, a promise, the truth, and a lie.

Procedure

Child Participants: All participants and parents were given an information package via the Girl Guide or Scout Leaders several weeks prior to the administration of the mock preliminary hearing. The information package contained: a written description of the research program as well as a consent form for both parents and participants. In the written description, parents and participants were made aware that the research program consisted of two sessions transpiring over a period of weeks. Upon receipt of consent forms by Scout and Girl Guide Leaders, the researchers were invited to conduct the study at the respective meeting locations in the presence of a parent or Leader. The parental and participant consent forms were collected at this time and kept separately from the results. At no time were the respondents' names attached to any of the data.

In a room separate from the Girl Guide/Scouting activities, participants were interviewed individually by a female research assistant unfamiliar with the purpose of the

study in an empirical session lasting approximately 2 minutes. The female experimenter was also present during the interviews and recorded the children's responses to the questions on score sheets. The research assistant introduced herself and the experimenter as people from the university who would be visiting with the child on two occasions to ask the child some questions. An effort was made to maintain a conversational tone throughout the study to reduce distress in the participants.

At the beginning of the interview children were reminded of their rights as participants, instructed by the research assistant to ask for question repetition if necessary, and to respond with "I don't know" when unsure of the response to a question.

Adult Participants: The adult participants were given the same information package as the child participants several days prior to the commencement of interviews. Those adults interested in participating met the experimenter and a research assistant at a designated time in a Canada Trust office and presented their consent forms. All participants were then informed of their participant rights, encouraged to ask for question repetition, instructed to respond with "I don't know" if unsure of an answer, and all measures to ensure confidentiality were taken. As with the child participants, the female experimenter recorded responses while the research assistant interviewed the participants.

Results and Discussion

Assessment of Competency

Content analysis was the strategy adopted for examining the participants' definitions of the five legal terms. Based on the qualitative inductive analysis described by Patton (1980), responses for each concept were grouped according to themes that were

common and recurrent across respondents for each term. Upon completion of theme categorization, the themes were compared to dictionary definitions as a measure of accuracy. In addition, frequencies and statistical tests for each theme category were calculated (see Table 4 for frequencies and statistical values). Twenty per cent of the interviews were scored by two independent raters with an inter-rater reliability of 92%.⁴

Sworn Testimony: As in a competency exam, participants were first asked to define “solemn affirmation” and “oath.” An understanding of one or both concepts is required for testimony to be sworn. As expected, all of the child participants (aged 7 to 8 and 10 to 11) responded with a resounding “I don’t know.” Further, 11 of the 18 adults failed to define this concept. According to the Merriam-Webster Dictionary (Woolf, 1974), a solemn affirmation is “a highly serious, grave and ceremonious declaration or assertion” (p. 654). Of those participants who did provide a response, the common theme of seriousness or gravity was found for only three participants. For example, “asserting something with your personal guarantee, a moral assertion.” The remaining respondents provided incorrect responses. In summary then, only 3 of the 18 adult participants and none of the child participants were able to illustrate an understanding of the term “solemn affirmation” as accepted by a dictionary definition.

⁴ Inter-rater consistency was computed by counting the number of agreements (A) and disagreements (D) among the raters and calculating the percent agreement $[A/(A+D) \times 100]$. An agreement occurred when the raters matched both the theme and the dictionary definition for each concept ($n = 115$). For a small portion of the definitions, however, raters failed to match the themes ($n = 15$) due to the vague nature of the definition provided.

Table 4

Frequency of Correct Definitions for Competency Assessment Concepts

Concept	7- to 8-year-olds (N = 46)	10- to 11-year-olds (N = 44)	21- to 50-year-olds (N = 18)	Statistical Test
Solemn Affirmation	0	0	3	$\chi^2(2) = 15.42$, $p < .001$
Oath	0	9	18	$\chi^2(2) = 69.82$, $p < .001$
Promise	40	44	18	$\chi^2(2) = 8.56$, $p < .05$
Truth	44	44	18	$\chi^2(2) = 2.75$, ns
Lie	43	44	18	$\chi^2(2) = 4.16$, ns

An oath is “a solemn appeal to God to witness the truth of a statement or the sacredness of a promise” (Woolf, 1974, p. 483). Not one of the 7- to 8-year-old participants were able to provide a correct definition. In turn, 20% of the children in the 10- to 11-year-old range provided the following partially accurate definition: “a promise to tell the truth.” Finally, all of the adults easily defined an oath as “a promise or pledge” ($n = 18$). At present, no standardized procedure exists for assessing competency and considerable room remains for variations in interpretation of what responses satisfy competency to provide sworn or unsworn testimony (Dziech & Schudson, 1989; Sas et al., 1991; Whitcomb, 1986). Some judges may require a child to define both a solemn affirmation and an oath to be considered for sworn testimony. In this case, only three of

the eighteen adults would have passed the mock competency exam. Other judges may require an understanding of an oath alone which would have permitted a small number of 10- to 11-year-old children and all of the adults to provide sworn testimony. Yet, according to the dictionary denotation, all of the participants omitted the religious importance and sacredness associated with an oath in their definitions, further highlighting the interpretive leeway given to judges to assess competency, judges who may or may not have any knowledge concerning the developmental abilities of children to provide testimony.

Inconsistencies in the determination of competency aside, these results indicate the developmental inappropriateness of the competency assessment process. The requirements to provide “sworn” testimony for children demand advanced cognitive skills and the comprehension of terms that some of the adults in the sample could not demonstrate (Bala, 1992; Myers, 1996). Furthermore, the assessment places the responsibility to prove to the court that one is capable of giving reliable testimony on the child. In no other environment are children given responsibilities at this sophisticated level, nor would such obligations be permitted. The responsibility that has been placed on the child witness in competency assessments is developmentally inappropriate and must be transferred to the court, where it belongs.

Unsworn Testimony: For unsworn testimony, a child must be able to communicate their understanding of one or all of the following concepts: a promise, the truth, and a lie. A promise is defined as “a pledge to do something with grounds for expectation” (Woolf, 1974, p. 556). Among the 7- to 8-year-old participants, only a few

($n = 6$) children failed to provide a definition. However, the remaining children responded according to one of two themes, both of which were accurate. Twenty-six children defined a promise as “saying something and having to do what you say.” This group of children emphasized the necessity of following through on one’s promise and their tone suggested that making a promise was very serious.

In turn, a promise involved “keeping your word” for fourteen children. This definition did not possess the same gravity of action as for the other group. It is also interesting to note that almost half of the participants in this 7- to 8-year-old range used an example to relay their understanding of the concept. To illustrate, a seven-year-old boy said, “a promise is when you say you are going to clean your room and you have to do it or else you get in trouble.” In turn, all of the 10- to 11-year-old children defined a promise without examples. The same two themes predominated as with the younger children. “Saying that you will do something and you have to do it” was the most frequently used definition ($n = 32$). The remaining twelve participants felt promises involved “keeping your word.” Lastly, the adults defined a promise according to the following themes, “a pledge or vow” ($n = 7$), “keeping your word” ($n = 7$) and “a commitment” ($n = 4$).

The concept of a lie, “an untrue statement with the intent to deceive” was also examined (Woolf, 1974, p. 407). Three children in the youngest age group were unable to provide a definition of a lie. The remaining 43 children responded accurately in one of two ways. “To say something that is not true” ($n = 33$) or “to say you will do something and you don’t” ($n = 10$). Again, examples were used by 15 children to convey their

understanding of the term, such as, “if I say I will walk home with my friend after school and I walked home with someone else, then I lied to my friend.”

The same two themes were reported for the older children of which three 10- to 11-year-old children used examples to illustrate their comprehension. Thirty-one children described a lie as “to say something untrue” while the remaining 13 participants said, “to say you will do something and you don’t”. Finally, all of the adults described a lie as “a falsehood or untruth.”

For the concept of truth, children in both age groups used the same definitions. Truth was reported to be either “something that is real” or “not a lie” which is consistent with the dictionary definition of truth being “the real state of things; a fact” (Woolf, 1974, p. 734). Of the 7- to 8-year-old respondents, two children could not provide a definition of truth. However, 38 children chose “something that is real” versus 6 children who indicated that truth is “not a lie.” In turn, thirty 10- to 11-year-old respondents indicated that truth is “something that is real” and 14 participants indicated that truth was “not a lie.” Again, examples such as “if Sally says she likes me as her boyfriend, and she does, then she is telling the truth” were used by three 10- to 11-year-old participants and ten 7- to 8-year-old children.

In turn, twelve of the adult participants felt that truth was “something real or factual” and six adults indicated that truth was “something you believe in.” This latter definition reflects an alternate interpretation of truth, one associated with gospel or conviction.

In conclusion, the children in this sample were no less capable than the adults of promising to tell the truth which is what is essential for providing evidence in the courtroom. The capacity to tell the truth or provide reliable testimony does not rest on the ability to understand the meaning of a solemn affirmation, nor on promising to tell the truth for that matter. In order to respect the developmental capabilities of children, the responsibility or “threshold of competency” applied by the assessment procedure must be placed on the questions asked of children in the courtroom, not on the child alone. This change would protect the child’s capabilities by requiring that the child be able to understand the questions which are asked in the courtroom.

Part 2: Mock Examination Period

Method

Participants

The same 108 children and adults who participated in the mock competency assessment also participated in the mock examination period. Although the focus of this study was the developmental appropriateness of courtroom examination questions for child witnesses, the small sample of adults was included to provide a benchmark against which children’s capacity to answer leading, non-leading (developmentally appropriate), and ratio estimate (developmentally inappropriate) questions could be compared. Therefore, the total sample was comprised of 7- to 8-year-olds ($n = 46$), 10- to 11-year-olds ($n = 44$) and 21- to 50-year olds ($n = 18$). Within this sample, there were 52 males and 56 females.

Apparatus

To assess time estimation skills, a developmental task based on Iris Levin's (1982) investigation of three types of time estimation problems was employed: a) synchronous problems, in which the events to be compared started and stopped simultaneously; b) beginning problems, in which the events started one after the other and stopped simultaneously; and c) ending problems, in which events started simultaneously and stopped one after the other. Levin (1982) found that children as young as five or six were capable of inferring time or duration estimates from the order of succession points (synchronous, beginning, and ending) in her experiment⁵. Levin (1982) cautioned, however, that these results were tenuous when the object was not being measured in still time (e.g., object rotating or moving in a linear path) or maintained interfering cues (e.g., lights with different burning intensities, dolls of different sizes). To achieve all three time estimation tasks in a consistent manner free of interfering cues⁶, an apparatus containing one red light bulb and one green light bulb of the same size and intensity was developed. The red and green light bulbs originated from a black box with a low voltage dc circuit.

⁵ Pilot test results using 16 children (8 children aged 7 to 8 and 8 children aged 10 to 11) indicated that they were able to accurately infer duration from the order of succession points as Levin (1982) indicated.

⁶ Pilot tests using "Talking Elmo" and "Talking Grover" stuffed animals as well as dolls with different hair colour indicated that participants' familiarity with the toys and/or preference for one toy over another served as interfering cues with the children's time estimates. Therefore, the green and red lights were chosen for all three tasks as they did not serve as interfering cues.

Materials

A standardized interview was created to elicit information from the participants based on the three time estimation problems outlined in Levin (1982) (see Appendix F). Each interview question was designed to be linguistically appropriate for the developmental level of the child participants. These questions were short in length, free of complex vocabulary or “legalese”, and they did not contain double negatives or unclear references to avoid confusing the children and confounding the accuracy of their responses (Carter, 1991; Saywitz et al., 1990; Saywitz, 1995, Walker, 1993).

The rationale for the standardized interview was based on the research of Saywitz et al. (1991) who explored whether children’s reports of timing, age, and height could be improved on the basis of age appropriate questioning. Children’s comprehension of conventional systems for measuring time is learned gradually over the elementary school years; however, the ability to estimate time using ratio units of measurement is not fully mastered until early adolescence (Levin, 1992; Levin & Simons, 1986; Piaget, 1970). Therefore, a question that requires a child younger than 13 to provide a time estimate in minutes or seconds will likely exceed their capacity to comprehend time. As a result, the standardized interview contained a series of 7 questions for each task, all of which were counterbalanced for order across tasks (see Appendix G). Some of these 7 questions were designed to match the participants’ abilities to estimate time “Was the red light on longer than the green light?” (developmentally appropriate/non-leading) while others were designed to exceed their ability to estimate time “How many seconds was the red light on for?” (developmentally inappropriate/ratio estimate). Further, some of the questions were

designed to be leading. For example, the question “Which light was on for longer?” appears to be developmentally appropriate, but not when both red and green lights were in synchrony. As both lights would have turned on and off at the same time, the correct answer to the above question would be “Both” yet, the question structure implies that only one light burned for a longer amount of time (leading).

Procedural Dilemma: A small pilot study using 8 child participants (4 aged 7 to 8 and 4 aged 10 to 11) was conducted to determine the soundness of the mock courtroom experience. During the examination periods, it was found that the participants, when asked ratio estimate questions (developmentally inappropriate), were reluctant to provide an answer and in many cases, did not respond at all. Further, many of the children became emotionally distressed when prompted for an answer. When later queried, these pilot study children described the ratio estimate examination questions as being too difficult to understand and/or answer. Further inquiries revealed that the participants did not spontaneously respond with “I don’t know” to the ratio estimate questions as they perceived this to be an unacceptable answer.

Similar findings were reported by Hughes and Grieve (1980) when they asked 5- and 7-year-old children nonsensical questions such as “Is milk bigger than water?” The majority of the children in their sample replied “yes” or “no” and rarely responded “I don’t know.” Saywitz and Snyder (1993) also found that their child participants were inclined to provide an answer to questions that they did not fully understand. The compliance literature suggests that children perceive adults as being cooperative conversationalists who ask honest and logical questions that must have an answer, therefore, “I don’t know”

is not an answer of choice for many children (Saywitz, 1995). Further, children being interviewed by strangers and in an unusual situation may be reluctant to say that they have not understood a question or are unsure of an answer (Beal & Flavell, 1982; Garbarino & Stott, 1989; Revelle et al., 1985; Saywitz & Snyder, 1991).

To determine if the issue of unresponsiveness could be alleviated, an additional sample of 8 children (4 aged 7 to 8 and 4 aged 10 to 11) was run through the pilot and instructed that "I don't know" was an acceptable response. Although these children reported that the developmentally inappropriate mock examination questions were difficult, they demonstrated less discomfort and unresponsiveness to the questions. Therefore, to ethically respect the needs of the children in this sample, the procedure for the examination period was amended such that the participants were advised prior to being questioned that "I don't know" was an acceptable response. As a result, the mock preliminary hearing was largely effortless and appeared to alleviate participant stress as compared to the discomfort shown by the children in the pilot.

Procedure

Immediately following the mock competency assessment, all participants were shown the black box. Participants were made aware that the lights would turn on and off in various patterns and that they would be asked to answer questions about the length of time for which the lights would be on without the aid of a clock. Task 1 involved both red and green lights in synchronous succession burning for a period of 7 seconds. Task 2 began with the red light, followed 2 seconds later by the green light and both lights turned off at the same time. The red light burned for a total of 7 seconds and the green light a

total of 5 seconds. Finally, Task 3 began with both lights turning on in unison, the green light turning off after five seconds, and the red light ending after 7 seconds. Following each task, the children were asked the seven questions illustrated in the standardized interview (Appendix F).

As during the mock competency assessment, the participants were interviewed individually by the same female research assistant unfamiliar with the purpose of the study in a separate room from the Girl Guide/Scouting activities. The female experimenter was also present during the interviews and recorded the participants' responses to the questions on scoring sheets. Upon completion of the light tasks, participants were told that the experimenter and research assistant would return in a few weeks to ask them questions about the timing of the lights they had seen. The mock examination period lasted approximately 3 minutes. As a result, the mock preliminary hearing including both the competency assessment and the examination period took approximately five minutes per person.

Results and Discussion

The purpose of the mock examination period was to determine whether the accuracy of a child's response to a question requiring an estimate of time could be manipulated based on the developmental level at which the question was asked. Of further interest, was whether leading questions had an impact on the accuracy of a child's response. To address these issues a series of statistical procedures were performed. Firstly, the absolute value of the difference between each estimate and its respective quantitative measurement was calculated for the developmentally inappropriate questions

(e.g., “How many seconds was the green light on for?”). Following this procedure, all participants with a difference score between zero and three were coded as giving a correct response (100) while all other responses were coded as incorrect (0). The ability to provide a precise time estimate is difficult for adults, let alone children, therefore an estimate within three deviations of the accurate response (representing the 50th percentile of total scores) was accepted as correct.

For the developmentally appropriate and leading questions, all accurate responses were coded as correct (100) and incorrect (0). Secondly, all of the scores for the leading, developmentally appropriate questions (non-leading), and developmentally inappropriate questions (ratio estimate) were averaged together across all three tasks and aggregated into three indices based on question type to improve reliability⁷. Finally, as a means of comparing across the age groups for each question type, a one way ANOVA was conducted on the mean accuracy scores for each of the three question types with age and gender as between subject variables. See Table 5 for statistical effects and F Values.

How Does Each Question Type Influence Accuracy for Children as Compared to Adults?

When the participants were asked non-leading questions, such as “Were the red and green lights turned on for the same amount of time?”, mean accuracy was high at 80% for the children (7- to 8- and 10- to 11-year-olds) and 89% for the adults. In contrast, the children’s responses to seemingly simple and factual, yet age inappropriate questions

⁷ Reliability analysis for those questions that were non-leading revealed moderate internal consistency for this index with an alpha coefficient of .60. The leading questions yielded an alpha coefficient of .82 providing strong support for their treatment as a scale. The ratio estimate questions indicated moderate internal consistency with an alpha coefficient of .60.

(Piaget, 1970) including, “How many seconds did the green light go on for?” revealed reduced mean accuracy rates for the child participants (52%). Similar findings were also reported for the leading questions. Results showed that when asked questions like “Which light turned off first?” when, in fact, both lights turned off at the same time, the children achieved a mean accuracy rate of only 52%.

Table 5

F Values Based on the Three One Way ANOVA's

Examining the Impact of Age & Gender by Question Type Accuracy

Question Type	<u>F</u>	Sig	η^2	Observed Power
Non-Leading:				
Main Effect of Age	$F(2, 102) = 1.33$	$p > .05$	.03	.28
Main Effect of Gender	$F(1,102) = 3.89$	$p > .05$	.04	.50
Age X Gender Interaction	$F(2,102) = 4.73$	$p > .05$	.08	.78
Ratio Estimate:				
Main Effect of Age	$F(2, 102) = 10.84$	$p < .001^*$	.18	.99
Main Effect of Gender	$F(1,102) = .82$	$p > .05$	.01	.15
Age X Gender Interaction	$F(1,102) = .16$	$p > .05$	.00	.07
Leading:				
Main Effect of Age	$F(2, 102) = 25.05$	$p < .001^*$	.33	1
Main Effect of Gender	$F(1,102) = .77$	$p > .05$	.01	.14
Age X Gender Interaction	$F(1,102) = 1.18$	$p > .05$	.02	.25

Many of the children appeared to have difficulty providing accurate responses to questions that were leading in nature or that demanded a time estimate. In turn, the adults demonstrated little difficulty in making their time estimates (93%) or responding to the leading questions (88%). The adults appeared to be just as capable of providing an

accurate time estimate when asked ratio estimate questions as when their responses were elicited by leading and non-leading questions (see Table 6 for mean values).

Table 6

Mean Accuracy Scores for Question Type by Age

Question Type		N	Mean	SD
Leading:	Ages 7-8	46	37.0	4.1
	Ages 10-11	44	66.0	4.2
	Ages 21-50	18	88.1	6.6
Non-Leading:	Ages 7-8	46	80.0	2.9
	Ages 10-11	44	80.2	3.0
	Ages 21-50	18	89.0	4.7
Ratio Estimate:	Ages 7-8	46	42.1	5.9
	Ages 10-11	44	61.0	6.0
	Ages 21-50	18	93.4	9.4

Note: Higher mean values indicate better performance.

Similar findings were reported by Saywitz et al. (1991) who examined the impact of asking developmentally appropriate and inappropriate questions of children. The researchers found that the 5- to 7-year-old children in their study were unable to state accurately the date or day when a doctor's visit occurred, but they could provide accurate information about the timing of the event when asked more age appropriate questions such as "Did you see the Doctor during the week or on a weekend?" Furthermore, the work of Piaget (1970) predicts inaccuracies in younger children's responses when asked to provide ratio estimates as the understanding of time does not consolidate until the age of 13 to 14 into regular established durations of minutes, hours, days and years. Adults, on the other hand, having presumably mastered the concept of time are more likely to

provide accurate ratio estimates of time and duration. Similarly, adults with their more developed mental capabilities are less likely to be impacted by suggestions found in leading questions than children (Ceci et al., 1987; Goodman et al., 1991; Goodman & Reed, 1986; Saywitz et al., 1991).

How Does Each Question Type Interact with a Participants' Age to Influence Accuracy?

With regard to the effect of participant age on response accuracy for the non-leading questions, adults and both the older and younger children did very well in demonstrating their understanding of time. In fact, no significant age differences were found between the three age groups in the accuracy of their responses as elicited by non-leading questions, $F(2, 102) = 1.33$, ns. In turn, age differences in mean accuracy were reported for the ratio estimate $F(2, 102) = 10.84$, $p < .001$ and leading question types $F(2, 102) = 25.05$, $p < .001$. Post hoc analyses⁸ revealed that the adults provided significantly more accurate time estimates than both the 7- to 8- year-old and the 10- to 11-year-old children as anticipated. See Table 7 for confidence intervals and Table 6 for mean values. In turn, the older and younger children did not differ significantly in the accuracy of their ratio time estimates, a finding that fits with Piaget's (1970) developmental research stating that before the age of 13-14, the ability to estimate time in minutes is tenuous.

⁸ Post hoc analyses made use of the Bonferroni test for multiple comparisons. This test was used to maintain the familywise error rate at $\alpha = .05$. Post hoc analyses used Tamhane's T2 conservative pairwise comparisons t-test for use with unequal sample sizes and variances.

Table 7

Post Hoc Pairwise Comparisons Using Tamhane's T-testfor Unequal Sample Sizes

Age Group		Standard Error	Sig	95% Confidence Interval	
Ratio Estimate Questions				Lower Bound	Upper Bound
7-8 years	10-11 years	8.37	p > .05	-39.54	3.87
	21-50 years	11.03	p < .001*	-70.34	-33.77
10-11 years	7-8 years	8.37	p > .05	-3.87	39.54
	21-50 years	11.10	p < .001*	-52.11	-16.33
21-50 years	7-8 years	11.03	p < .001*	33.77	70.34
	10-11 years	11.10	p < .001*	16.33	52.11

In contrast, post hoc analyses revealed that for the leading questions, all three age groups differed significantly from each other in their mean accuracy scores. Adults were significantly more accurate (or less easily misled) than the children and the 10- to 11-year olds were significantly more accurate in their responses than the 7- to 8-year-olds, a developmental trend reported by other researchers (King & Yuille, 1987; Oates & Shrimpton, 1991; Ornstein et al., 1992; Rudy & Goodman, 1991; Saywitz et al., 1991). See Table 8 for confidence intervals and Table 6 for mean values.

Ceci et al. (1987) indicate that children's suggestibility resulting from leading questions, which is more pronounced in younger children, may occur for a variety of reasons including: confusion by the form of the leading question posed, the assumption that the attorney is knowledgeable about the crime, or the belief that this powerful person (lawyer) would not mislead them in front of the judge. It may also be that children are

affected by suggestion in leading questions because of their minority status and socio-cultural training to obey and respect authority.

Table 8

Post Hoc Pairwise Comparisons Using Tamhane's T-test

for Unequal Sample Sizes

Age Group		Standard Error	Sig	95% Confidence Interval	
Leading Questions				Lower Bound	Upper Bound
7-8 years	10-11 years	5.88	p < .001*	-43.44	-12.76
	21-50 years	7.75	p < .001*	-65.13	-37.35
10-11 years	7-8 years	5.88	p < .001*	12.76	43.44
	21-50 years	7.80	p < .001*	-35.41	-10.87
21-50 years	7-8 years	7.75	p < .001*	37.34	65.13
	10-11 years	7.80	p < .001*	10.87	35.41

The research on compliance suggests that pressure exists in adult-child social interaction to conform to the perceived expectations of the adult (Ervin-Tripp, 1978; Read & Cherry, 1978). Further, children are at a power disadvantage in child-adult interactions, particularly in the courtroom. Ceci and Bruck (1995) point out that "children are rarely allowed to end interactions by saying 'I don't want to talk about this any more,' regardless of the uncomfortable nature of the examination. They are required to continue until the adult decides to terminate the examination" (Ceci & Bruck, 1995, p. 259). In comparison to adult witnesses, it would be unacceptable for children to say "Stop it! I already told you that nothing happened." "These techniques, which are more permissible and available to

adults, have the impact of warding off potential suggestive and coercive questioning methods” (Ceci & Bruck, 1995, p. 259).

Additional Post Hoc Analyses: How Does Response Accuracy Compare Across All Three Question Types?

Following the three one way analyses comparing response accuracy across the three age groups for each question type, a 3 (within subjects: question type) X 3 (between subjects: age) X 2 (between subjects: gender) repeated measures MANOVA was conducted on the same mean accuracy scores. The addition of this multivariate analysis was to permit the exploration of the participants’ response accuracy across all three question types, rather than by each question type alone. Such a statistical analysis would not ordinarily be conducted on this data as the chance accuracy rate for each question type was varied. For example, the chance level for guessing a correct response for the non-leading questions was 50%, 25% for the leading questions, and 0% for the ratio estimate questions. As a result, a significantly lower accuracy score for the ratio estimate questions as compared to the non-leading questions could not necessarily be interpreted to mean that the children found the latter question type easier to understand.

However, what justifies the inclusion of this analysis is the fact that a developmentally appropriate question by nature is very simple and provides children with few response options in order to reduce confusion. In turn, what makes a ratio estimate question developmentally inappropriate for children is that it not only demands cognitive skills that they have not yet developed (e.g., time estimation), it does not entitle them to pick one of two or three response options. Rather, it is a function of the ratio estimate

question itself that children, uncertain in their understanding of a concept, are given a wide margin of opportunity from which to extract a response. Such a question type is not likely to promote accurate responses from children due to the complexity of its format and content. Adults, however, are less likely to experience difficulty with this question type due to their greater understanding of and experience with estimation inquiries. Therefore, the multivariate analysis was included to investigate whether different question types are more likely to elicit accurate responses for different age groups than others, an effect demonstrated statistically by an age by question type interaction, $F(2, 101) = 7.15$, $p < .001$.

How Does Age and Question Type Interact To Influence Response Accuracy?

Examination of the significant age by question type interaction using simple effects analyses and follow-up tests⁹ revealed no significant differences in accuracy across all three question types for the adult participants. This finding was expected considering the adults' mature cognitive abilities and high mean accuracy scores for all three question types: ratio estimate (93%), leading (88%) and non-leading (89%). In contrast, the children reported significantly different mean accuracy rates to the questions. See Table 9 for statistical values.

Both older and younger children did very well in their time estimates for the non-leading questions, $F(2, 107) = 1.03$, ns. In turn, age differences in accuracy were

⁹ All post hoc analyses made use of the Bonferroni test for multiple comparisons. This test was used to maintain a familywise error rate of $\alpha = .05$.

discovered for both the leading and ratio estimate questions¹⁰. Older children were significantly more accurate in their responses than the younger children for both the ratio estimate, $F(2, 107) = 11.43$, $p < .001$ and the leading questions $F(2, 107) = 24.91$, $p < .001$. See Table 6 for mean values.

It appears that non-leading questions are more likely to elicit accurate responses from both 7- to 8-year-old and 10- to 11-year-old children than the other two question types. When asked ratio estimate and leading questions, however, older children are more capable of responding accurately than younger children. In contrast, all three question types are equally capable of eliciting an accurate response from the adult participants. These results suggest that the accuracy of a child's response to questions requiring an estimate of time is susceptible to manipulation based on the developmental level of the content and format of the question asked.

Table 9

F Values for Simple Main Effects of Age and Question Type

Effect	SS	MS	F	Sig
7- to 8-year-olds by Question Type	68864.24	34432.12	$F(2, 210) = 35.06$	$p < .001^*$
10- to 11-year-olds by Question Type	26697.64	13348.82	$F(2, 210) = 13.59$	$p < .001^*$
21- to 50-year-olds by Question Type	6.73	3.37	$F(2, 210) = .00$	$p > .05$

¹⁰ As discovered by a One Way ANOVA using Age as the Independent Variable and the Accuracy Scores for the three question types as the Dependent Variables.

These findings evoke the image of a light switch located in a dark attic such that an age appropriate question turns the switch (comprehension) ON and the child can then “see” into the attic (memory) and find the correct response. In turn, the age inappropriate questions actively turn the light switch (comprehension) OFF such that the child cannot “see” the correct response in the attic (memory). The leading questions, however, appear to serve as a dimmer switch, possibly confusing the child and making it more difficult for the child to “see” the correct answer. This dimming effect is particularly pertinent for younger children who appear to be more affected by leading questions than their older counterparts.

This light switch analogy is helpful in demonstrating that the child’s memory or ability to recall information is, in fact, reliable. Rather, it is the form of the question which facilitates the report of accurate information or introduces error. Each question type was asked of all the participants in a random and counterbalanced order. Therefore, the children’s accuracy could be turned ON by an age appropriate question and alternately, turned OFF or dimmed by a following ratio or leading question. Conversely, the children’s accuracy, having been turned OFF by a ratio estimate question, could also be turned ON again by a trailing age appropriate question. These results can serve as proof that the child need not be perceived as unreliable or be held responsible for proving their ability to provide reliable testimony in the courtroom. Rather, the questions asked of child witnesses are what needs to be assessed for their ability to elicit reliable information from children. The accuracy and completeness of children’s testimony can only be guaranteed if cross-examination is limited to techniques that promote competency and credibility.

CHAPTER 4

Quantitative Research

(Part 2)

Mock Trial

Rationale

The mock preliminary hearing demonstrated that the accuracy of a child's response to questions requiring an estimate of time appears to be manipulated based on the developmental level at which the question is asked. Specifically, children responded most accurately to non-leading (developmentally appropriate) questions, however, when asked leading questions or to provide a ratio estimate (developmentally inappropriate question), their accuracy levels dropped. In contrast, adults performed very well in their estimates of time, regardless of what question type elicited their responses. Of further interest, was whether the participants' accuracy rates as elicited by question type in the mock preliminary hearing would be affected by the passage of time. This topic is particularly relevant, for most child witnesses must participate in both a preliminary hearing and a trial, often months or years apart (Weiss & Berg, 1982). Such delays have implications for children's testimony in the courtroom as recent studies on children's memory suggest that long retention intervals may erode their memories (Brainerd et al., 1990; Goodman et al., 1990; Oates and Shrimpton, 1991; Ornstein et al., 1992). Furthermore, the longitudinal impact of different types of questions, particularly developmentally appropriate and inappropriate questions, in eliciting children's response accuracy has received little research attention (Saywitz et al., 1991). Therefore, a mock trial was created to determine if the passage of time influenced the accuracy of children's responses as elicited by various types of questions concerning the timing of a previous event. The small sample of adults continued to be included to provide a benchmark against which children's

longitudinal capacity to answer leading, non-leading, and ratio estimate questions could be compared.

Method

Participants

The same 90 child participants aged 7 to 11, and 18 adult participants aged 21 to 50 that participated in the mock preliminary hearing were asked to participate in the mock trial following a 6 to 8 week delay. Consent procedures were identical to those used during recruitment for participation for the preliminary hearing.

Materials

The same structured interview used during the mock preliminary hearing was used for the mock trial (see Appendix F). Participants were not shown the green and red light apparatus, however, as during the mock preliminary hearing. Rather, they were asked to make estimates about the timing of the green and red lights from memory without the aid of a clock. These time estimates were cued by the same courtroom examination questions from the mock preliminary hearing that: a) required conventional systems for measuring time; b) used more age appropriate methods of determining time; and, c) employed leading methods of determining time.

Procedure

Following a six week to eight week delay from the preliminary hearing, the same research assistant and experimenter returned to the Girl Guide/Youth Scout meetings to re-interview each child in the presence of a leader or parent. The children had been notified at the time of the initial interview that the experimenter would be returning to ask

them questions about the timing of the lights they had seen and were anticipating the second exchange. Children were given the same standardized interview outlined in the mock preliminary by the research assistant which lasted approximately 3 minutes¹¹. The female experimenter recorded the children's responses to the questions and ensured that confidentiality was observed. Following completion of the study, participants were debriefed. In addition, all of the child participants were given a debriefing letter to take home to their parents (see Appendices C & D). Attrition was avoided in this sample, as the researchers were permitted to continue returning to the Girl Guide/Youth Scouting meetings until all missing participants were gathered. Therefore, the time delay ranged from 6 to 8 weeks within which the responses were collected.

Results and Discussion

The purpose of the mock trial was to permit the longitudinal exploration of the impact of non-leading, leading, and ratio estimate questions to elicit children's accurate recall of the timing of a previous event. To address the impact of time on the ability of question type to elicit participants' recall, a series of statistical procedures were performed. Firstly, as in the mock preliminary hearing, the absolute value of the difference between each estimate and its respective quantitative measurement was calculated for the developmentally inappropriate questions (e.g., "How many seconds was the green light on for?"). Following this procedure, all participants with a difference score between zero and three were coded as giving a correct response (100) while all other responses were coded

¹¹ As in the mock preliminary hearing, the children were advised prior to being questioned that "I don't know" was an acceptable response. As a result, the trial was largely effortless.

as incorrect (0). The ability to provide a precise time estimate, particularly over a time delay, is difficult for both children and adults, therefore time estimates within three seconds of the correct measurement (representing the 50th percentile of total scores) were accepted as correct.

For the developmentally appropriate and leading questions, all accurate responses were coded as correct (100) and incorrect (0). Secondly, all of the scores for the leading, developmentally appropriate questions (non-leading) and developmentally inappropriate questions (ratio estimate) were averaged together across all three tasks and aggregated into three indices based on question type to improve reliability¹². Finally, as a means of comparing across the age groups for each question type over time, a 2 (within subjects: time 1/time 2) X 2 (between subjects: gender) X 3 (between subjects: age) repeated measures ANOVA was conducted on the mean accuracy scores for each of the three question types. See Table 11 for statistical effects, *F* and *t* Values.

How Does Each Question Type Influence Accuracy for Children as Compared to Adults?

Following the delay of 6 to 8 weeks, the participants were once again asked the same ratio estimate, leading, and non-leading questions as in the mock preliminary hearing. To the age appropriate questions such as “Which light was on the longest?”, the children and adults provided a mean accuracy rate of 69% and 78% respectively. See Table 10 for mean values.

¹² Reliability analysis for those questions that were non-leading revealed moderate internal consistency for this index with an alpha coefficient of .61. The leading questions yielded an alpha coefficient of .72 providing strong support for their treatment as a scale. The ratio estimate questions indicated moderate internal consistency with an alpha coefficient of .70.

However, responses to “How many seconds did the green light go on for?”, a seemingly simple and factual, yet age inappropriate question for children, revealed reduced mean accuracy rates for the child participants (44%), but not the adults (77%). Similar findings were also reported for the leading questions. Results showed that when asked questions like “Which light turned off first?” when, in fact, both lights turned off at the same time, the children achieved a mean accuracy rate of only 46% in comparison to the adults (74%). The adults appeared to be just as capable of providing an accurate time estimate when asked ratio estimate questions as when their responses were elicited by leading and non-leading questions. Yet, many of the children appeared to have difficulty providing accurate responses to questions that were leading in nature or that demanded a time estimate.

Table 10

Mean Accuracy Scores for Question Type by Age

Question Type		N	Mean	SD
Ratio Estimate:	Ages 7-8	46	35.6	4.4
	Ages 10-11	44	50.9	4.5
	Ages 21-50	18	76.8	7.0
Non-Leading:	Ages 7-8	46	66.3	2.3
	Ages 10-11	44	72.4	2.3
	Ages 21-50	18	77.9	3.7
Leading:	Ages 7-8	46	32.8	3.2
	Ages 10-11	44	58.0	3.3
	Ages 21-50	18	73.8	5.2

Note: Higher mean values indicate better performance.

Despite the fact that accuracy rates for both children and adults dropped significantly over the 6 to 8 week period for the leading questions ($F(1, 102) = 31.69$, $p < .001$), non-leading questions ($F(1, 102) = 23.96$, $p < .001$) and ratio estimate questions ($F(1, 102) = 15.12$, $p < .001$), the same trend in response accuracy as elicited by question type was found at both the mock preliminary hearing and mock trial. Adults reported similar mean accuracy rates for all three question types, however, the children indicated higher mean accuracy scores for the non-leading questions alone. In turn, the leading and ratio estimate questions elicited similar, but reduced accuracy levels from the child participants.

Table 11

F Values Based on the Three Repeated Measures ANOVA's

Examining the Impact of Age & Gender by Each Question Type Over Time

Question Type	<u>F</u>	Sig	η^2	Observed Power
Non-Leading:				
Main Effect of Time	$F(1, 102) = 23.96$	$p < .001^*$	.19	1
Time X Gender Interaction	$F(1,102) = 2.97$	$p > .05$	.05	.50
Time X Age Interaction	$F(2,102) = 3.27$	$p > .05$	.06	.63
Ratio Estimate:				
Main Effect of Time	$F(1, 102) = 15.12$	$p < .001^*$	.13	.97
Time X Gender Interaction	$F(1,102) = .24$	$p > .05$	.00	.07
Time X Age Interaction	$F(2,102) = .90$	$p > .05$	.02	.20
Leading:				
Main Effect of Time	$F(1, 102) = 31.69$	$p < .001^*$	.24	1
Time x Gender Interaction	$F(1,102) = 2.52$	$p > .05$	.02	.35
Time X Age Interaction	$F(2,102) = 3.16$	$p > .05$	.06	.60

As a result, it appears that children's responses to questions requiring an estimate of time continue to be manipulated based on the developmental level at which the question is asked. Thus invoking the light switch analogy posited in the previous chapter whereby developmentally appropriate questions turn the light switch (comprehension) on in the dark attic (memory), developmentally inappropriate questions turn the light switch off, and leading questions act as a dimmer switch making it more difficult for children to "see" or "remember" the correct answer. Ultimately, these results demonstrate that it is not the child who is unreliable, rather, it is the form of the examination question that introduces error and elicits inaccurate responses from the child.

Additional Post Hoc Analyses: How Does Response Accuracy Compare Across All Three Question Types?

In the absence of a significant age by time interaction from the repeated measures analyses designed to compare response accuracy across the three age groups over time for each question type, an alternate analysis was conducted. A 3 (within subjects: question type) X 2 (within subjects: time 1/time2) X 3 (between subjects: age) X 2 (between subjects: gender) repeated measures MANOVA was conducted on the same mean accuracy scores. As with the mock preliminary hearing data, the addition of this multivariate analysis was to permit the exploration of whether different question types are more likely to elicit accurate responses for different age groups than others, an effect demonstrated statistically by an age by question type interaction, $F(4, 204) = 6.79$, $p < .001$. The impact of time on the ability of the different question types to elicit accurate recall from participants concerning the timing of a previous event was also of interest,

however, no significant age by time by question type interaction, $F(4, 204) = 3.25$, $p > .05$ was found.

How Does Age and Question Type Interact To Influence Response Accuracy?

Examination of the significant age by question type interaction using simple effects analyses and follow-up tests¹³ revealed no significant differences in accuracy across all three question types for the adult participants at the time of the mock trial. This trend was not unexpected considering the adults' mature developmental capacities and high mean accuracy scores for all three question types: ratio estimate (77%), leading (74%) and non-leading (78%). A similar trend was reported during the preliminary hearing, however, mean accuracy scores were much higher for all three question types: ratio estimate (93%), leading (88%) and non-leading (89%).

The children reported significantly different mean accuracy rates to the questions than the adults. See Table 12 for statistical values. Both older and younger children did poorly in their time estimates for the ratio estimate questions, $F(2, 107) = 3.52$, ns.¹⁴ This finding was not unexpected as the work of Piaget (1928; 1970) indicates that when a question demands intellectual skills from children that they have not yet developed, as in the case of the ratio estimate questions, response accuracy will be tenuous. Only when the children develop time estimation competencies, likely around the age of 13-14, will more

¹³ All post hoc analyses made use of the Bonferroni test for multiple comparisons. This test was used to maintain a familywise error rate of $\alpha = .05$.

¹⁴ As discovered by a One Way ANOVA using Age as the Independent Variable and the Accuracy Scores for the three question types as the Dependent Variables.

accurate responses be elicited by the ratio estimate questions (Levin, 1992; Piaget, 1928; 1970).

Table 12

F Values for Simple Main Effects of Age and Question Type

Effect	SS	MS	F	Sig
7- to 8-year-olds by Question Type	25574.58	12787.29	$F(2, 210) = 15.02$	$p < .001^*$
10- to 11-year-olds by Question Type	48132.54	24066.27	$F(2, 210) = 28.27$	$p < .001^*$
21- to 50-year-olds by Question Type	5300.57	2650.29	$F(2, 210) = 3.11$	$p > .05$

In turn, age differences were reported for both the non-leading and leading questions. Older children were significantly more accurate in their responses than the younger children for both the non-leading, $F(2, 107) = 7.43$, $p < .001$ and the leading questions, $F(2, 107) = 13.31$, $p < .001$. See Table 10 for mean values.

These results fit with the developmental research as older children have been found to perform better than younger children on both non-leading and leading questions when delays are involved (Oates & Shrimpton, 1991; Ornstein et al., 1992; Rudy and Goodman, 1991; Saywitz et al., 1991). Ceci and Bruck (1995) have examined this age trend in accuracy and suggest that older children are more adept at accurate recall over long delays because they possess more sophisticated skills for encoding, storing, and retrieving pertinent information than younger children (see also Kail, 1989; Schneider & Pressley, 1989 for reviews). In fact, older children have been found to be planful in using their memories. For example, they use their knowledge of the structure of a list to develop an

efficient retrieval plan. Younger children, however, seem less able to do this on their own due to their maturing cognitive capabilities and associated age limits in cognitive complexity (Case et al., 1993; Furth, 1969; Piaget, 1970). These intellectual constraints change only gradually with development, and as they do, children's ability to remember and maintain the strength of a memory over time changes too (Case et al., 1993). It appears that older children's advanced cognitive development, and their use of memory strategies, may act as a buffer against the possible "dimming" effects of time induced memory erosion (Brainerd et al., 1990; Goodman et al., 1990) and confusion caused by leading questions (Ceci et al., 1987; King & Yuille, 1987).

How Does Time Influence Accuracy as Elicited by Question Type?

Both the three one way repeated measures analysis and the repeated measures MANOVA revealed a significant main effect of time for all three question types, $F(1, 102) = 45.59, p < .001$. Specifically, accuracy rates dropped significantly from the time of the preliminary hearing to the trial for the leading, non-leading and ratio estimate questions. See Table 13 for mean values. This drop in accuracy was evident across all three age groups, although no age by time interactions were found for the three question types.

A common explanation for this decrease in accuracy over time is that long retention intervals can erode children's memories such that the ability to recall the correct response is compromised (Brainerd et al., 1990; Goodman et al., 1990; Oates and Shrimpton, 1991; Ornstein et al., 1992). The age appropriate questions still turn the light

switch (comprehension) ON, however, the strength or wattage of the light enabling the child to “see” the correct answer is reduced by the passage of time.

Table 13

Mean Accuracy of Question Type by Time

Question Type	Time	N	Mean	SD
Non-Leading:	Preliminary	108	83.1	3.5
	Trial	108	72.2	2.8
Leading:	Preliminary	108	63.7	5.0
	Trial	108	54.9	3.9
Ratio Estimate:	Preliminary	108	65.5	7.1
	Trial	108	54.4	5.3

Note: Higher mean values indicate better performance.

Alternatively, research into the use of leading questions suggests that this legal strategy can maximize the chances of contaminating witnesses' long-term memory. Loftus and her colleagues (1974, 1978) have demonstrated two important consequences of leading questions. Firstly, the wording of a leading question affects the answers generated by the question. Secondly, misleading information introduced in an earlier test situation can affect the answers to later questions such that individuals may have detailed memories for events that were merely suggested to them. The initial confusion and potential for later memory alteration resulting from leading questions have severe implications for witnesses, particularly children, involved in a legal process replete with delays. Therefore, a leading question introduced in the preliminary hearing may not only produce immediate inaccuracies in testimony due to question confusion (see Chapter 3, leading questions), but may intrude upon the witness's memory such that recall during the trial is tainted. In

essence, the suggested information during the preliminary trial may have infiltrated the children's accurate original memory for the event such that when the light switch was turned ON by the age appropriate questions, the child "saw" the suggested information coexisting with original memory and error rates increased.

Another potential explanation for this "dimming" effect is the lack of saliency of the three light tasks (synchronous, beginning, and ending succession) in the participants' memory over time. The three light tasks were similar in nature and, although the children were able to discern between them during the mock preliminary, it is unclear as to whether the tasks remained independent and distinguishable memories after the 6 to 8 week delay. Although the children knew that they had been shown the lights three different times, they may not have been able to remember the order in which they viewed the light tasks or the specifics of each task which would have impacted their recall accuracy rate. This interpretation is supported by the research concerning children's recall of central and peripheral details, such that peripheral information is less accurately remembered than central information (Dent & Stephenson, 1979; Goodman & Reed, 1986; Pear & Wyatt, 1914; Spencer & Flin, 1990). Therefore, the similarity of the three tasks may have caused the children to fail to perceive the specific details of each task as central information, ultimately impacting the ability of the child to "see" the correct answer.

Moreover, this final explanation of the "dimming" factor affecting the ability of the age appropriate questions to elicit accurate information from children over time raises the important issue of external validity. Goodman (1984) has criticized the majority of child witness research for failing to address the types of information of central concern to child

sexual abuse investigations, such as being kissed or fondled. Rather, Goodman (1984) claims, many studies focus largely on children's recall of peripheral or ambiguous details presented in mundane stories or pictures. Although this research attempted to mirror a child witness' courtroom experience using actual examination questions, the saliency of a developmental task with red and green lights is admittedly difficult to compare to that of an abusive situation. Furthermore, the repeated cross-examinations and the use of forceful examination techniques that many real witnesses undergo in court were not used for ethical reasons. Although the sessions were referred to as a "mock" preliminary hearing and trial, the participants in this study did not really have experiences that simulated the courtroom environment or the stress of being a witness. As a result, such limitations must be considered when attempting to generalize these findings to clinical and legal cases.

Nevertheless, the results of this research program elucidate the types of interview techniques that promote and destroy children's response accuracy and strengthen the demand for future research into the most age appropriate methods for eliciting accurate information from children, particularly, over time. Whether the "dimming" factor for the age appropriate questions is the natural erosion of memory due to the passage of time, the impact of memory contamination introduced during the preliminary hearing in the form of leading questions, or the nature of the developmental task, remains unknown. Clearly, future investigation into this area is warranted as is the need for research on children's memory and testimonial capabilities within ecologically valid paradigms. In the interests of fundamental justice, the techniques that enable children to provide testimony at their

optimal level of performance must continue to be investigated and the established findings of these studies need to be disseminated into the legal system.

CHAPTER 5

Conclusion

Conclusion

Critical law theory indicates that if there is a problem with the manner in which the law operates, in order to find the problem, one should examine the law and its processes (Clark, 1992; Kairys, 1982b; Smart, 1990). As a result, court records of 58 examples of child sexual abuse testimony were investigated for sensitivity of the court in acknowledging the differing developmental capabilities between child and adult witnesses. Children were found to be asked developmentally inappropriate questions during competency assessments and direct- and cross- examinations that either failed to respect the fact that children are not responsible for their sexuality by definition of being a child, or exceeded the children's cognitive threshold of comprehension.

It appears that the rules governing the evidence given by children are based on outdated beliefs and legal precedents regarding the capacity of children to provide accurate testimony (for example, the Competency Assessment). Furthermore, the legal system and its courtroom procedures, particularly cross-examination, seem to be designed for adults and often fail to recognize the developmental capabilities of the child witness. As a result, children who are sexually abused and must face the courtroom are not always afforded the same protection of the law as children who are playing on the playground.

The ideal goals of our legal system are equality and fairness - "equal justice for all within an open, ordered, and impartial system" (Law Society of Upper Canada, 1996). A legal process designed for adults, however, cannot be applied to children's cases under the assumption that adult and children's testimonial capabilities are identical. When a legal procedure is applied in a uniform way, but has a differential effect on an identifiable group

of individuals such that it provides them with less protection, the courts become an instrument of injustice (Renner et al., 1997). The fact that the legal doctrine contributes to the problem for which it is intended to be the official recourse is an issue of fundamental justice and must be addressed in a reasonable manner. "Since the system can be ineffective in protecting the rights of children, it is necessary to re-examine the existing doctrines which reflect the cultural and social limitations that have preserved dominant male interests at the expense of children" (Renner et al., 1997, p.100).

A critical examination of the legal doctrine itself is required before law reform can be implemented. Law reforms of the past, pertaining to sexual abuse, have largely failed child witnesses (see History of Competency Examination Section) as they have been borne from the conventional legal framework, which relies largely on legal precedent and may be resistant to the evolution of social change.

To break the past cycle of ineffective reforms may require a form of re-definition which moves to a social science level of analysis, rather than one based solely on traditional legal scholarship (Renner et al., 1997, p. 100).

Until the legal system, its practices and doctrines, are held accountable to the ideal of fundamental justice, and short falls are used as the basis for further conceptual refinements, fairness and justice may never be achieved. To hold the achievement of fundamental justice accountable to the standards of science is best done through the methodological framework of social science research. In turn, "psychology perhaps has the unique capacity within the social sciences for bringing the power of empirical research to bear on the theoretical conceptualization of important social issues" (Renner et al., 1997, p.101). The discipline looks to operational definitions that have measurable

indicators as a means of evaluating inequality and advocating for change. By bridging law and psychology, the fairness and equality of legal practices and doctrines can be evaluated, inconsistencies can be identified, and solutions can be implemented that serve the end of greater fundamental justice.

Identifying the Real Problem

By applying developmental psychology to the legal process, this research has demonstrated that the capabilities of children, protected outside the courtroom by law and statute, can be disrespected within the courtroom. The examination of actual courtroom testimony revealed that many of the children between the ages of 4 and 13 had been held responsible for their sexuality and liable for the provision of reliable testimony despite the use of examination questions that exceeded their level of cognitive comprehension. In essence, the developmental truth that most children under the age of 14 are capable of providing responsible testimony, but are not responsible for their sexuality has been inverted. The court's emphasis on credible testimony appears to have little to do with the evaluation of an account, only on the ability of the child to negotiate an adult environment and demonstrate their competency within it.

It appears that the legal system has inadvertently placed the responsibility for the provision of reliable testimony on the child alone, and has overlooked the fact that "accurate reports are as much a function of the children's communication and cognitive skills as the communication demands of the legal system environment" (Saywitz, 1995, p. 115). The legal system plays a large role in eliciting competent or incompetent testimony from children on the witness stand as successful communication is a shared

responsibility, involving the communicative skill of both adult and child. It is important not to overlook the fact, however, that child witnesses, due to their limited cognitive and linguistic development, are the disadvantaged communicative partners in this pairing. If a child appears to be incompetent on the stand, chances are that it is the inappropriate nature of the questions that are prompting the child to respond inaccurately (Saywitz, 1995).

The court system can no longer support the use of courtroom strategies that can subject children to a secondary form of abuse through the very legislative process designed to protect them. The goals of fairness and equality (Rawls, 1998) can never be attained through a legal process that can, at times, disrespect the developmental capabilities of the child witness by pitting the mind of a child against the mind of an educated adult well trained in the art of verbal artifice. Children's mental development is fixed and relatively absolute at any given chronological age, and it is the court's rules and legal practices which are arbitrary and reformable. Therefore, it is the courtroom practices and legal doctrines which must be revised and changed to fit the developmental needs of the child, as opposed to the child being required to fit the rules and sophisticated environment of the courtroom. "Such accommodations could enhance the ability of the courts to ascertain the truth from child witnesses and need not violate the fundamental rights of the accused" (Bala, 1991, p. 8).

Finding a Solution

Casting and Panning: Using the Right Tools

The use of the casting and panning analogies within the child witness context are not idle speculation nor are they without practical implications. No competent fisherman would cast for minnows with a net intended for cod, nor a prospector pan for gold with a sieve made for sorting grapefruits. Every task has a proper tool and by using developmentally appropriate questioning as an instrument to elicit competent testimony from children in the courtroom, the legal process will further the course of fundamental justice.

As the results of the present study demonstrate, developmentally appropriate questioning can indeed elicit competent testimony from children. Child and adult participants watched green and red lights turn off and on in a variety of sequences and were asked about the timing of the lights during two examination sessions held 6-8 weeks apart. Results indicated that children had difficulty providing accurate responses to questions that were leading in nature or that required cognitive skills the children had not yet developed (e.g., providing an estimate of time in seconds). However, the children had little difficulty providing accurate responses to questions that matched their developmental level. The adults, who provided a benchmark against which the children's capacity to answer developmentally appropriate and inappropriate questions could be compared, provided highly accurate responses regardless of whether the question was developmentally appropriate, leading, or required an estimate of time in seconds. These

results illustrate that children can provide competent testimony when their developmental levels are respected by the form of the examination question.

Developmental levels have been thoroughly investigated and modern research suggests that as children age, they develop more complex concepts, skills, and capabilities (Piaget, 1926, 1928, 1970; Case et al., 1993). In other words, a linear evolution exists in children's abilities, although each child is unique. The advantage of linear cognitive development is that a child's grasp of a particular cognitive concept may be measured and with this knowledge, the child's cognitive threshold of comprehension can be respected in the courtroom.

Pre-Court Assessment

The legal process can be changed to respect the developmental abilities of the child witness through the creation and administration of an assessment tool designed to determine the cognitive level of the child prior to testifying, and through the application of a standard that outlines acceptable formats for questions. With such a pre-test, there could not be any confounding of the child's testimony as the assessment of the child's cognitive ability would establish the restrictions to be placed on the complexity and wording of the questions which may be asked.

The idea of a pre-court assessment is not new. Several researchers (Haugaard, 1988; Jaffe et al., 1987; Lamb, Sternberg, & Esplin, 1998; Schuman, Bala, & Lee, in press) have advocated for the inception of a pre-court or in-court assessment of child witnesses' abilities to testify and cope with the demands of the courtroom such that fairer courtroom investigations can be achieved. Logic dictates that if children are to be treated

fairly, then the court must accommodate itself to their level of cognition and communication (Saywitz et al., 1990; Schuman et al., in press). Kuehnle (1996) agrees that the issues of child witnesses' cognitive competency must be assessed before a court makes conclusions about the veracity of a child's statements. "While lying may account for a non-sexually abused child's bizarre or implausible narrative of abuse, a mismatch between the linguistic and cognitive worlds of adults and children may also elicit bizarre and implausible narratives from the sexually abused child" (Kuehnle, 1996, p. 293).

The application of developmental psychology in the legal process via the pre-court assessment would result in courtroom standards that acknowledge the differing cognitive capabilities between children and adults. Such a procedure would allow the legal process to separate two sources of potential error that are now confounded. The lack of capacity of the child witness to provide evidence must be separated from the failure to provide evidence due to the use of questions known to be cognitively impossible for the child to answer or known to contaminate testimony. In short, errors forced by the court process should not be attributed to the lack of capacity of the child to provide reliable testimony.

Three exhibits exemplify how the legal process might enable children to furnish accurate testimony by respecting the child's intellectual capabilities with cognitively appropriate questions (see Table 14).

In Exhibit A, the 10-year-old child's response of "I don't know" to a question suitable for a fourteen-year-old could be used by the Defense to imply that the child is not a reliable witness. It is highly likely, however, that this child does not have the cognitive means to provide an estimation of distance in its quantitative form. All that is central to

Table 14

Developmentally Appropriate Methods of Eliciting Testimony

Description Category	Exhibit A Distance Estimation	Exhibit B Time Estimation	Exhibit C Size Estimation
Transcripts	<p>(Case #11239) Barbara, aged 10, is asked by the Defense:</p> <p>Q: How far is the lake from your home? A: I don't know. Q: But don't you go to the lake every day or so to swim?</p>	<p>(Case #11188) A child, aged 5, is asked by the Crown:</p> <p>Q: How long would you visit with Daddy when you went to his apartment? A: Um, I don't know. Q: Well, would it be a matter of minutes? A: Sometimes, I stayed there for supper.</p>	<p>(Case #10128) Andrea, aged 11, is asked by the Defense:</p> <p>Q: How big is the room in Mr. H's house? A:(no response). Q: Perhaps if you can't tell us the measurements, you could point out an area in the courtroom that is similar in size?</p>
Developmentally Appropriate Questions			
Qualitative Ages 8-10	Do you walk to the lake? Is it a short walk?	Did you visit your Dad at his apartment? Was it a long visit?	Have you been in Mr. H's living room? Is it a big room?
Representational Ages 11-13	Does it take longer to walk to the lake than to walk to school?	On the days you visited with your Dad, did you spend more time with your Dad or more time at school?	Is Mr. H's living room bigger than the living room at your home?
Quantitative Ages 14+	How many minutes does it take to walk to the lake?	How many hours would you spend at your Dad's apartment when you visited?	How many feet wide is Mr. H's living room?

the sexual assault case is that there is a lake to which the child frequently walks to go swimming, either alone or with other children. If the appropriate questions had been

asked, a clear picture would have been received by the court of a lake frequently used for swimming within easy walking distance, a fact that could be easily confirmed.

Due to the very young age of the witness in Exhibit B, and the fact that time estimation skills are very fragile and/or non-existent prior to age eight, this witness should have been asked a series of simple questions which used only images or identification, such as "Did you sleep at Daddy's?," "Did you have supper at Daddy's?," to gauge the approximate time that the child spent at her father's apartment without asking for time estimations. Or, to establish previous physical presence in a location, the child could have been shown a picture, to which the reply: "Daddy's bedroom," would depend only on the capacity to recognize her father's home. Such appropriate questions would then allow the judge and jury to make inferences about the validity of the testimony and whether the alleged circumstances of the case are credible.

The final example, Exhibit C, provides an illustration of what seems like a reasonable line of questions. However, the child is caught in a no win situation. Failure to answer the question implies that the child is incompetent, and perhaps was never in the living room. Yet, being forced to provide an answer before the required quantitative level, spatial skills have developed will likely result in an answer that can be demonstrated to be incorrect. Had a pre-court assessment of the child in Exhibit C established that he or she had achieved a representational comprehension of spatial ability, the above question would not have been permitted in the courtroom as the child's threshold of comprehension had been exceeded.

The Role of the Judge and Prosecution in the Solution

Any time a defense lawyer asks developmentally inappropriate questions and the Crown fails to object or the judge fails to act, potential evidence is being suppressed or destroyed. Clearly, judges have the most important role in child sexual abuse prosecutions, not only in terms of interpreting the law and deciding cases, but also in ensuring that the child is able to communicate fairly and effectively during cross-examination. By eliminating the competency examination and then monitoring the proceedings for instances of developmentally inappropriate questioning, the judge could enforce a form and level of questioning that elicits optimal testimony. Much debate has centered on the level of involvement, however, permitted by trial judges in the legal process. Many lawyers and members of the judiciary believe that “excessive judicial interruption inevitably weakens the effectiveness of cross-examination” and raises concerns about judicial impartiality (Kapardis, 1997). In turn, many judges are reluctant to interfere with attorneys’ questioning.

Although cross-examination is a right of constitutional magnitude, this right is not unlimited. Judges have discretion to control the scope, extent, and form of the cross-examination (Conrad, 1956; Myers, 1987) to ensure that the interrogation of child witnesses is not detrimental to the testimony (American Bar Association, 1985). In *R. v. L.(D.O.)* (1993), Madam Justice L’Heureux-Dubé reinforced judges’ authority to intervene during developmentally inappropriate examinations of child witnesses.

It is my view that, in the case at hand as well as in other cases involving fragile witnesses such as children, the trial judge has a responsibility to ensure that the child understands the question being asked and that the evidence given by the child is clear and unambiguous. To accomplish this end, the trial judge may be required to clarify and rephrase questions asked by counsel and to ask subsequent questions to the child to clarify the child's responses.

The witness is a child, and must be afforded the same protection by the court that is afforded to all children by virtue of their age. The court itself, as well as its adult agents, cannot become a party to victimizing the child with a new form of exploitation. It is the responsibility of the adult not to sell children cigarettes or alcohol; so to is it the responsibility of the adults in the courtroom not to exploit the mental level of the child, just as children are not to be sexually exploited by adults under any circumstance.

This is not an impossible or even particularly difficult task. The occasional judge will try to do the very things that are being suggested (Case #10355):

Judge: You have asked three questions in one. I'm having difficulty with the questions. I'm allowing all the leeway in the world, but you are still dealing with a young lady, and I think the question should be simple.

Defense: I will make them very simple.

Judge: This witness is frightened of testifying.

Defense: That is what is going to happen if I make them simpler. She's going to cry and we're going to be stopping and stopping and stopping.

Judge: Well, it would certainly be better to make the questions simple so that the witness could answer.

The task of the judge can be made far simpler by providing guidelines for what type of questions are appropriate via the pre-court assessment process. The application of a developmental framework would assist the judiciary in permitting only those questions which respected the child's cognitive level, thus granting the child the opportunity to provide accurate evidence.

In turn, when judges fail to intervene and require that child witnesses be asked developmentally appropriate questions, the prosecuting attorney must do so by raising an objection. The basis for the objections is on the findings of the pre-court assessment. The court cannot allow the defense lawyer to exploit the cognitive ability of the child witness in the face of the pre-court assessment of the child's cognitive capabilities. With the developmental assessment in place, the procedures allowed in the courtroom will be in accordance with the principles of fundamental justice and the court, in truth, will become the guardian agency responsible for the protection of children.

Law Reform: A Re-Definition

The current legal system does, at times, fail to protect children and when it does, it subjects child witnesses to a secondary form of abuse through the very process designed to protect them. A new round of law reform is needed. It seems logical that the protection children should be afforded is the assurance that the questions they are asked in the courtroom do not exceed their level of mental development. Failure to do so would be similar to asking an adult a question in a language they did not understand.¹⁵ In both cases, the failure to understand the question does not reflect upon the capacity of the person, only the inappropriateness of the question. In either case it would be incorrect to conclude that the witness was not able to provide reliable information.

¹⁵ Under Section 14 of the Canadian Charter of Rights and Freedoms, a party or witness in any proceedings who does not understand or speak the language in which the proceedings are conducted or who is deaf has the right to the assistance of an interpreter. Child witnesses, however, are not given this same right when asked questions they cannot cognitively understand by legal officials.

The rules of evidence are simply that; they are rules. They are procedures put in place to try to ensure that the courts render decisions based on objective, factual information. If these rules are known to fail to protect the ability of the child witness to provide reliable testimony in child sexual abuse cases, then it is necessary to change the rules to fit the children, because the children cannot be changed to fit the rules.

Court officials' recognition of the developmentally insensitive legal process and their desire to address the child witness's needs may be mitigated, however, by concerns of impinging on the rights of the accused. In Section 11 of the Canadian Charter of Rights, a great deal of emphasis is placed on the rights of the accused to a fair defense and balancing them with the rights of the complainant. Lawyers are taught that the pursuits of truth and justice are important objectives in the criminal justice system, but they must be offset with the protection of those who might be innocent and with maintaining a system that is seen to be fair by society (Law Society of Upper Canada, 1996). Yet, respecting the developmental capabilities of a child witness in the courtroom is not just about balancing the rights of the victim with the right of the accused. Rather, it is the obligation of the court to provide justice – fairness in its most fundamental sense – that is at issue. This requires a mindful legal process through which children do not have to be abused cognitively in order to seek justice for sexual abuse. The issue is one of equality before the law. Fundamental legal protection cannot be withheld from children by the actions of the court. The court cannot be an agent of harm in the service of justice.

Furthermore, once the court has relinquished the arbitrary notion that sworn testimony is essential and embraced the simple psychological fact that children have not

yet achieved the same level of mental development as adults, the standard that needs to be applied is to ensure that the questions are developmentally appropriate. The child sexual abuse law states quite simply and directly that it is an offense for any adult to sexually exploit, interfere, or touch a person under 14 years of age. The rules of evidence need only to place similar restrictions on the legal doctrine with respect to violations of the child's mental capacity. A violation of a child's capacity for independent judgment and decision is a violation, whether physically at the hands of the offender, or verbally at the hands of the court.

Epilogue: Putting Research and Social Action Into Practice

I have attached this section as an informal follow-up to my thesis. A journal entry, if you will, of the ways in which myself and others have tried to put research and social action, practice and theory, teaching and learning together into a single process as recommended by Renner (1995). It is not enough that this research aimed to discover whether the justice process was achieving the purposes for which it was intended. In order to contribute to fundamental justice, this research had to be translated into practice. Below is a description of how the National Social Action Program (NSAP) and its members attempted to take our research and shared knowledge of a social problem and connect it with social action.

A Plan to Translate Research Findings into Social Action: The History of NSAP

The National Social Action Program for Reform of Sexual Assault Laws was formed in the spring of 1998. The program was created by Ed Renner and supported by his research on social justice, my thesis on the insensitivity of the legal system with child witnesses, and Amanda Parriag's research on the inappropriate examination tactics used with adult witnesses in the courtroom. Together, with the added knowledge and community presence of Wendy Hovdestad, the project aimed to promote the change of the legal system into a justice system for women and children victim-witnesses of sexual violence.

To encourage social action, the group decided to circulate our research findings within the community. We also wanted to put the material into the hands of the people

who could use it the most; those supporting victims of sexual violence. In order to disseminate our research findings in a practical manner, three action plans were created:

1) Documenting the Outrageous - this plan provided community groups with our system for categorizing the content of sexual abuse and assault trials. The goal was to encourage individuals to attend sexual violence trials and document any injustices in the courtroom, such as the use of developmentally inappropriate legal tactics with children. Community members were then encouraged to take their findings to local media in order to increase public awareness of the need for law reform. Through this process, it was hoped that public awareness would transform into public outrage and people would be motivated to put pressure on politicians and legal personnel to encourage law reform.

2) Challenge the Legal System - this plan was designed to secure local Crown Prosecutors to raise formal objections to inappropriate legal tactics used by defense counsel with sexual assault or abuse witnesses. By making these formal objections, the Crown would be able to protect the witness and force Judicial attention to the inappropriate nature of such legal practices. Again, it was hoped that increased Judicial awareness of the injustices perpetrated in the courtroom would lead to law reform.

3) Supporting Child and Adult Witnesses - this final plan was created to assist the victim-witnesses in the current legal system. Packages were designed to coach women and children to avoid the common traps set in the courtroom and help them survive within the adversarial justice process.

These three plans were placed, along with supporting research, onto the NSAP website for free downloading by interested individuals and community groups.

<http://www.carleton.ca/~erenner/nsap.html>.

To more pro actively raise community awareness and obtain community support in the fight for law reform, packages outlining our purpose and research were distributed to sexual assault centres, feminist organizations, community groups, lawyers, and the media across Canada. This mail out was followed by a press release in September 1998. As a result of these activities, numerous media interviews, invitations to speak at conferences and with community groups ensued over the following year.

NSAP One Year Later: The Long Road to Social Action

NSAP has largely succeeded as an educational program, teaching people about the issues facing women and children victim-witnesses of sexual violence. In the majority of our speaking engagements, we have been preaching to the converted; people and organizations who share our views and like the fact that we have statistics to back what they have been advocating for years. As proof, we continue to receive calls from individuals and organizations asking for our Documenting the Outrageous categorization materials and our Supporting Child and Adult Witness packages. We have been told that groups such as Justice for Women actively hand our support packages to the women and children they assist, and the information is perceived as helpful. Unfortunately, we have received little feedback from those who have received our categorization materials. We do not know the kinds of injustices they are finding in their community courtrooms or of their successes with the local media.

As for securing Crown prosecutors to make formal objections to inappropriate legal tactics in the courtroom, we have had little victory. The Crown prosecutors we have talked to support our position, but do not wish to go before the same set of judges everyday and make objections which may be met with Judicial hostility. Despite this reluctance, we continue to receive calls from lawyers and even judges asking for our research materials. Perhaps, some Crown attorney or judge out there is considering using our research to curb inappropriate legal tactics in their next sexual assault or child witness case.

NSAP: Next Steps

Although a long way from public pressure, community outrage, protests, and ultimately, law reform, NSAP continues to build bridges and alliances with community groups and individuals sharing our common goal. As proof, we were initially known only locally, now our membership and affiliations are Canada wide. Each time that an alliance is made, our joint resolution for a Canadian legal system comprised of truth, justice, and fairness is strengthened and our cry for reform becomes more audible.

At present, the community demand is for knowledge and education - the first step on the road to social action. I would like to see the legal community, however, become interested in NSAP and permit us to share our findings with them. It is more likely, though, that NSAP will have to take a more pro active stance in educating legal officials. Then again, no one said that the road to law reform would be easy. Putting research and social action into practice is a process or a journey, and no journey can begin without taking that first step.

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Appendix A

Definitions of the 21 Categories of Questions and Tactics

History

This category helps establish the victim's character, generally at the beginning of the trial.

1. Previous Non-Sexual History

This category uses incidents unrelated to the abuse to establish that the victim is generally of good or bad character. The Defense may try to suggest that the victim is unreliable and would misperceive/lie such as highlighting that the child is doing poorly in school or fights viciously with her brother. The Crown might highlight the fact that the child is doing well in school.

Psychological

This category refers to emotions and feeling as they pertain to the case, as they are often used as proof of the existence or nonexistence of abuse.

2. Adjustment Before The Assault

This category is a measure of the victim's general state of mind or mental health prior to the incident. Usually this category is used to show that the witness is not emotionally stable, e.g., she was doing poorly in school, moody, etc. This category is used by the Crown to show that the victim was well adjusted before the abuse and is not now, so therefore, sexual abuse must have taken place.

3. Adjustment After The Assault

A measure of the victim's general state of mind or mental/emotional health after and as a result of the incident; problems coping after the abuse. If the victim's grades

dropped or personality changed after the incident, it is introduced by the Crown. The Defense on the other hand, uses the lack of an emotional problem to suggest that no abuse took place.

4. Feelings at Time

This category refers to questions on the victim's feelings at the time of the abuse. Most often the Defense uses the lack of an emotional response at the time of the abuse to suggest that no abuse took place. The Crown will use evidence that the victim was upset at the time, e.g., crying, to suggest that the abuse did take place.

Themes

Themes are based on myths or stereotypes about the nature of true sexual abuse. The issue is the extent to which these themes appear in sexual abuse cases and how often they are introduced by the Crown and the Defense.

5. Victim Injury

Questions that introduce or challenge testimony of injury, bruises, scrapes, or physical evidence of the use of force. Injury sustained by the victim is taken by the Crown to show that abuse occurred. The Defense will either ignore this testimony or dispute it (the victim bruises easily, etc.). Lack of victim injury is taken by the Defense to mean that no abuse occurred, despite the fact that child victims usually comply with the demands of the accused as a result of bribery, verbal intimidation, or direct threat.

6. Resistance

Questions that introduce or challenge testimony that there was active verbal or physical resistance on the part of the victim. This category goes directly to the issue of

what steps a child witness took to tell the accused that the sexual activity was unwanted. This includes both degree and timing of resistance that the victim exhibits. The Defense may suggest that the lack of resistance is indicative of consent rather than fear of injury or punishment.

7. Clothing Torn, Removed

The implication is that if the clothing was not damaged, if nothing was torn, then there must have been consent. This category covers all questions about the condition of clothing, or who removed the clothing or parts of clothing. The Defense ignores the fact that in a situation where the victim fears further injury the victim may choose to comply with a request to remove her own clothing.

8. Violence Or Intimidation

Questions that introduce or challenge testimony that there was the threat of violence or intimidation as part of the assault. This category may include threats, restraining the victim or more active forms of violence. This is often the crux of the case as consent is not given when coercion is present. The Defense either ignores occurrences of violence or turns the tables on the victim, asking why she did not resist and/or inform the accused that he was hurting her, sidestepping the question of why the accused used such tactics to begin with.

9. Place

Questions that introduce or challenge testimony about the physical location and circumstances of the abuse. The implication is that if it was an unusual place (e.g., in a stairwell) it was abuse, while if it occurred in a bedroom or in someone's home it is

implied that the child solicited or wanted the abuse. The Defense usually suggests that the victim knowingly put herself in a situation that would be conducive to sexual activity (e.g., Why did you keep going back to his apartment if you knew he was going to touch you?)

10. Character

Questions that introduce or challenge the testimony by addressing the culpability or character of the witness. The tactic is used to show that the witness should not be believed (as part of a credibility strategy). Illustrations of character may be examples from the victim's past or examples taken from the chain of events leading up to the particular incidents in question - this category can overlap with the "previous non-sexual history" and "victim credible" categories. Examples of questions in the category include questions about whether the child lies or steals.

11. Recency Of Complaint

This category is comprised of questions that introduce or challenge testimony about how soon and to whom the witness reported the abuse. Suggests that a "legitimate" victim would report the incident to someone right away, ignoring the fact that shock or fear might prevent the child from disclosing, or that there might not be a suitable person available to whom the child could speak.

12. Initiation

Includes any line of questions concerning how the victim met the accused. Suggests that initiation of contact by the victim is a signal of sexual interest (e.g., why were you asking him about sex?).

Strategies

13. Word Pictures

Word pictures are created by using words which have extra meaning, (e.g., provocative words or phrases that have strong connotations). The same event can be portrayed in either a negative or positive light depending on word choice. As an example, in an abortion case an expert witness was asked if the **dead baby** showed any signs of life. The witness answered that the **fetus** showed no signs of life. This example illustrates two experienced individuals contesting whether the court case is about a dead baby or a fetus. In sexual abuse cases, the Defense may use words like “brushed your breasts” or “cleaned you in the bathtub” rather than “fondled you in the bathtub” or “grabbed your breasts.” Word pictures can be used to describe the sexual act or aspects of the entire incident - they are simply words which discredit the child’s account of the situation.

14. Impeachment

This refers to questions that introduce or challenge whether testimony that was given on one occasion has been contradicted by testimony given on another occasion. The implication is that if there are any such discrepancies that the witness was either lying on one occasion or cannot remember things very well. In either case, this category calls into question whether the testimony about the abuse itself should be believed. Although this technique challenges the testimony of the witness, it is the issue of contradiction that is the essential element. It often occurs in the context of trivial details surrounding the abuse. Although small details might be overlooked or forgotten by the victim with minimal

impact on the accurate recollection of major events, the Defense treats such slips by the victim as indicative that the victim is unreliable.

15. Overgeneralization

People often do not use words in precise ways. Lawyers are trained to attend to words such as "always" and "never". Yet in everyday speech we often use these words not in their exact sense but as a short hand way of emphasis. Instead of recognizing that such words are being used in their looser sense, attorneys use such occurrences as an opportunity to suggest that none of the victim's testimony is accurate. For example, the child might say, "He touched me about 10 times." The Defense might reply, "About 10 times. You really don't know how many times he supposedly touched you, do you? Is there anything else that you are also unsure about?"

16. Implied Fabrication

This category refers to questions that suggest that the witness might have some motivation to lie or fabricate the complaint of sexual abuse. The Defense attempts to present reasons why the victim might lie about having been sexually abused such as being coached by a parent.

Tactics And Style

17. Pin Down

This tactic includes asking questions that involve small specific details that the witness may not remember or can be shown to be factually incorrect. The Crown may use this tactic to give the witness a chance to say that she does not remember that particular detail within the context of friendly questions that keep the focus on the central issue. In

contrast the Defense will try to focus on often insignificant details over which there may be confusion. For example, the Defense may ask about the colour of the sofa on which the child was fondled or what kind of pajamas the child wore on the night of the abusive incident.

18. Tag Questions

The "tag" procedure first asks a harmless question and then "tags" a new question on the end which implies something deleterious. For example, "Do you often feel like the bad is all a dream?" Once the child replies yes, it is followed by "...it is sometimes hard to tell the difference between what is a dream and what isn't a dream isn't it?" The Defense has managed to obtain the child's consent to a question implying that the child may have fabricated the abuse due to an inability to distinguish fantasy from reality.

19. Aggression

a) Elevated Voice Level - Any incidence of a lawyer raising his/her voice to the point where they are yelling at the witness

b) Rapid Fire Questions - A quick line of questions one after the other, leaving the victim little time to answer and promoting witness confusion

20. Credibility/Victim

These are questions which will call the credibility of the testimony into question. Refers to victim characteristics that may contribute to a misperception or misrepresentation of the events in question or to aspects of the situation that may prevent the victim from accurately assessing the event. These have to do with whether there was enough light to see, whether the person is too young to remember. These are attacks or

inoculations dealing with whether the testimony itself is credible. Note that credibility (of testimony) is different from simple and direct attacks on the **character** of the person. The latter involves showing that the child's story is less credible than is the story presented by the accused. However, the content of character may also become a credibility strategy when the questions are used to make a direct or implied reference about whether the testimony itself is credible.

21. Credibility/Accused

Refers to attempts by the Defense to enhance the portrayal of the accused, either by presenting aspects of his life to show that he is a "nice guy" or by getting the victim to admit that she perceived the accused to have positive qualities. This tactic works by using the myth that only deranged men sexually abuse children.

Appendix B

Myths Underlying the Seven Adult Sexual Assault

Themes Designed to Place Responsibility for Sexuality on the Child

Variable Name	Rape Myth
Psychological Adjustment Before	Children who accuse men of abuse show signs of unhealthy psychological functioning (e.g., constant lying, moody, failing school).
Psychological Adjustment After	Abused children display signs of emotional trauma.
Clothing Removed	Abuse victims have their clothing removed by the perpetrator.
Resistance	A child who did not want to be abused would resist the sexual advances of the adult.
Character	Bad children are more likely to be abused than good children.
Recency	An abused child immediately reports the abuse to his or her parents or a friend.
Initiation	If the child initiates the contact, he or she is asking for and/or consenting to sex

Note: Based on Burt (1980; 1998) and Lonsway & Fitzgerald (1995)

Appendix C

Consent Letter to Adult Participants

Dear Participant:

My name is Laura Park and I am a Ph.D. student at Carleton University. I would like to ask for your help with my thesis. Dr. Edward Renner and I are conducting research designed to hopefully make it easier for children to give testimony in Canadian courtrooms. Currently, children can sometimes be asked questions which are inappropriate for their age. To such questions they may sit in silence or say "I don't know" when actually they don't understand; sometimes they simply comply with the lawyer by saying yes or no. As a result, the testimony of children may be needlessly considered unreliable. Parents know that they need to talk to a five year old differently than they do to a 10-year-old to elicit information. The purpose of my research is to investigate whether it is true that when appropriate questions are asked, children are able to accurately describe a past event. Your role in this study would be to act as a comparison group; to provide a benchmark of adult accuracy.

Would you consider participating in my study?

The sessions will take 5 minutes on two occasions 2 months apart. You will be asked some general questions always asked in court, e.g., "Do you know what it means to take an oath?" and "What is a promise?" as well as some questions requiring time estimates. Although you will be asked to participate on two occasions, you are free to withdraw at any time. The time estimation questions will be based on your participation in three short tasks in which: a) red and green lights will be turned on for different amounts of time.

This thesis is in accordance with Carleton University's ethical standards; **your written consent to participate is required**. Your participation is completely voluntary. I will provide you with a full description of the research materials and/or the results of my research if requested.

Please return the attached consent form via the enclosed envelope to me directly and/or contact me at (613) 520-2600 ext. 2666 to indicate whether or not you wish to participate.

Do not hesitate to call me or Professor Renner at our joint telephone mailbox (520-2600 ext. 2666). If either of us are not in our office, please leave a message and we will return your call. You can also write to us (Department of Psychology, Carleton University, 1125 Colonel By Drive, Ottawa, ON, K1S 5B6) if you have any questions or concerns. My email address is: lpark@ccs.carleton.ca and Ed Renner's email address is: erenner@helios.acomp.usf.edu.

Please be aware that although Canada Trust has allowed me to approach you, this research is not tied with the organization and there is no obligation to participate.

Thank you for your time and for considering my request,

Laura Park, Ph.D. Student

Adult Participant Consent Form

The purpose of this research program is to investigate whether it is true that when appropriate questions are asked, children are able to accurately describe a past event. Your role as an adult participant would be to act as a comparison group.

I understand that I am being asked to participate in a research project which is being conducted by a Ph.D. Psychology student, Laura Park, her supervising instructor, Dr. Edward Renner, and the Psychology Department of Carleton University.

I understand that my participation is voluntary. I may refuse to participate in this study. I may also withdraw from the study at any time. I may omit the answer to any question. My written consent will be obtained before the study begins. If I indicate "yes," I am interested in participating in the study. If I indicate "no" I do not wish to participate in the study outlined in the consent letter.

I understand that I am free to contact either Laura Park or Laura's supervising investigator, Dr. Edward Renner, at (613) 520-2600 ext. 2666 if I have any questions.

I agree to participate in this research project.

Yes _____

No _____

Signature _____

Do you want a copy of the results?

Yes _____

No _____

I would like a copy of the results of this study sent to:

Name and Address: _____ (please print)

Adult Participant Debriefing Letter

PARTICIPANTS: WHAT WAS THIS STUDY ALL ABOUT?

Many children are asked age inappropriate questions on the witness stand to which the child may respond with silence, or “I don’t know”. A blank stare or timid “I don’t know” are often taken as signs of the child’s inability to be a strong witness. My argument, however, is that you cannot expect a child to answer a question correctly when it is suitable for the advanced thinking capabilities of an adult. Therefore, the purpose of this research project is to investigate whether age appropriate questioning can improve communication with child witnesses and thus, enable them to give testimony to the best of their abilities.

The ability of children to give testimony has been widely researched, however, little research has looked at the role of communicating with children at their level on the witness stand and whether doing this helps the child to provide more accurate information. In addition, few research studies have examined actual courtroom testimony to discover the courtroom practices and legal tactics that interfere with children’s abilities to provide accurate testimony.

The sessions in this research study investigate the accuracy of child testimony when questions suited for the age and abilities of the child are asked. It is hypothesized that participants will give more errors when asked questions that are suitable for adults than when asked questions that are suited for their age range.

It is hoped that the results of this research project will lead to change in the courtroom strategies used with children. Specifically, I would like to see cross-examination questions that respect the age of the child witness enforced in the courtroom. Furthermore, education for legal professionals on the capabilities of child witnesses can be developed. Age appropriate questioning may overcome many of the communication problems that face the child witness, allowing children to testify to the best of their ability.

We would like to thank you for participating in this research. Your time and efforts are greatly appreciated.

If you have any questions or comments about this research, please feel free to contact me, Laura Park (Principal Investigator) or Ed Renner (Research Advisor) at 520-2600 ext. 2666. If you have any ethical concerns about this research then please contact Dr. Gick (Chair, Department of Psychology Ethics Committee, 520-2600 ext. 2664) or Dr. Matheson (Chair, Department of Psychology, 520-2600, ext 2648).

Appendix D

Consent Letter to Child Participants and their Parents

Dear Parent/Legal Guardian:

My name is Laura Park and I am a Ph.D. student at Carleton University. I would like to ask for your help with my thesis. Dr. Edward Renner and I are conducting research designed to hopefully make it easier for children to give testimony in Canadian courtrooms. Currently, children can sometimes be asked questions which are inappropriate for their age. To such questions they may sit in silence or say "I don't know" when actually they don't understand; sometimes they simply comply with the lawyer by saying yes or no. As a result, the testimony of children may be needlessly considered unreliable. Parents know that they need to talk to a five year old differently than they do to a 10 year old to elicit information. The purpose of my research is to investigate whether it is true that when appropriate questions are asked, children are able to accurately describe a past event.

Would you consider permitting your child to participate in my study?

The sessions will take 5 minutes on two occasions 2 months apart. Your child will be asked some general questions always asked in court, e.g., "Do you know what it means to take an oath?" and "What is a promise?" as well as some questions requiring time estimates. Although the children will be asked to participate on two occasions, they are free to withdraw at any time. The time estimation questions will be based on your child's participation in three short tasks in which: a) red and green lights will be turned on for different amounts of time. The interviews will take place at the Girl Guide or Scouting location with leader supervision.

This thesis is in accordance with Carleton University's ethical standards; **both you and your child's written consent to participate is required.** Your child's participation is completely voluntary. Your child will be interviewed by myself and a research assistant and you may be present during the interviews if you wish. I will provide any parent with a full description of the research materials and/or the results of my research if requested.

Please return the attached consent form via the enclosed envelope to your child's Girl Guide or Scout leader and/or contact me at (613) 520-2600 ext. 2666 to indicate whether or not you wish your child to participate.

Do not hesitate to call me or Professor Renner at our joint telephone mailbox (520-2600 ext. 2666). If either of us are not in our office, please leave a message and we will return your call. You can also write to us (Department of Psychology, Carleton University, 1125 Colonel By Drive, Ottawa, ON, K1S 5B6) if you have any questions or concerns. My email address is: lpark@ccs.carleton.ca and Ed Renner's email address is: erenner@helios.acomp.usf.edu.

Please be aware that although Girl Guides and Scouts of Canada have allowed me to approach the Brownies, Guides and Scouts, this research is not tied with the organization and there is no obligation to participate.

Thank you for your time and for considering my request,

Laura Park, Ph.D. Student

Child Participant and Parental Consent Form

The purpose of this research program is to investigate whether it is true that when appropriate questions are asked, children are able to accurately describe a past event.

I understand that my child is being asked to participate in a research project which is being conducted by a Ph.D. Psychology student, Laura Park, her supervising instructor, Dr. Edward Renner, and the Psychology Department of Carleton University.

I understand that my child's participation is voluntary. He/she may refuse to participate in this study. He/she may also withdraw from the study at any time. He/she may omit the answer to any question. His/her written consent as well as my own written consent will be obtained before the study begins. I understand that I am to contact Laura Park via telephone (613) 520-2600 ext. 2666 or by handing in this signed consent letter to my child's Girl Guide/Youth Scout Leader regardless of my child's participation. If I indicate "yes," my child (with my permission) is interested in participating in either of the experiments outlined in the consent letter. If I indicate "no" my child does not have my permission to participate in either of the experiments outlined in the consent letter.

I understand that I am free to contact either Laura Park or Laura's supervising investigator, Dr. Edward Renner, at (613) 520-2600 ext. 2666 if I have any questions.

I agree to allow my child to participate in this research project.

Yes _____

No _____

Signature of parent or guardian _____

Signature of Child _____

Name of Child _____

Date, Time & Location of Girl Guide meetings:

Do you want a copy of the results?

Yes _____

No _____

I would like a copy of the results of this study sent to:

Name and Address: _____ (please print)

Child Participant and Parental Debriefing Letter

PARENTS & PARTICIPANTS: WHAT WAS THIS STUDY ALL ABOUT?

Many children are asked age inappropriate questions on the witness stand to which the child may respond with silence, or “I don’t know”. A blank stare or timid “I don’t know” are often taken as signs of the child’s inability to be a strong witness. My argument, however, is that you cannot expect a child to answer a question correctly when it is suitable for the advanced thinking capabilities of an adult. Therefore, the purpose of this research project is to investigate whether age appropriate questioning can improve communication with child witnesses and thus, enable them to give testimony to the best of their abilities.

The ability of children to give testimony has been widely researched, however, little research has looked at the role of communicating with children at their level on the witness stand and whether doing this helps the child to provide more accurate information. In addition, few research studies have examined actual courtroom testimony to discover the courtroom practices and legal tactics that interfere with children’s abilities to provide accurate testimony.

The sessions in this research study investigate the accuracy of child testimony when questions suited for the age and abilities of the child are asked. It is hypothesized that participants will give more errors when asked questions that are suitable for adults than when asked questions that are suited for their age range.

It is hoped that the results of this research project will lead to change in the courtroom strategies used with children. Specifically, I would like to see cross-examination questions that respect the age of the child witness enforced in the courtroom. Furthermore, education for legal professionals on the capabilities of child witnesses can be developed. Age appropriate questioning may overcome many of the communication problems that face the child witness, allowing children to testify to the best of their ability.

We would like to thank you for participating in this research. Your time and efforts are greatly appreciated.

If you have any questions or comments about this research, please feel free to contact me, Laura Park (Principal Investigator) or Ed Renner (Research Advisor) at 520-2600 ext. 2666. If you have any ethical concerns about this research then please contact Dr. Gick (Chair, Department of Psychology Ethics Committee, 520-2600 ext. 2664) or Dr. Matheson (Chair, Department of Psychology, 520-2600, ext 2648).

Appendix E

Interview Schedule and Score Sheet for Mock Competency Assessment

I am going to ask you to define a few words. If you do not know what the word means, you may say "I don't know":

Do you know what it means to take a solemn affirmation? If yes, please define.

Do you know what it means to take an oath? If yes, please define.

Do you know what it means to make a promise? If yes, please define.

Do you know what it means to tell the truth? If yes, please define.

Do you know what it means to tell a lie? If yes, please define.

Appendix F

Interview Schedule and Score Sheet for Mock Preliminary
and Trial Examination Periods

I am going to make the lights on this black box turn on three different times. I want you to watch the lights carefully. After both of the lights turn off, I will ask you some questions about them. If you do not know the answer to any question, you may say "I don't know". Then we will move on.

Task 1: Synchronous Lights

- _____ Were the red and green lights turned on for the same amount of time?
- _____ Which light turned on first?
- _____ How many seconds did the green light go on for?
- _____ How many seconds did the red light go on for?
- _____ Which light was on the longest?
- _____ Which light turned off first?
- _____ Which light was on for 30 seconds?

Task 2: Lights Began at Different Times

- _____ Were the red and green lights turned on for the same amount of time?
- _____ Which light turned on first?
- _____ How many seconds did the green light go on for?
- _____ How many seconds did the red light go on for?
- _____ Which light was on the longest?
- _____ Which light turned off first?
- _____ Which light was on for 30 seconds?

Task 2: Lights Ended at Different Times

- _____ Were the red and green lights turned on for the same amount of time?
- _____ Which light turned on first?
- _____ How many seconds did the green light go on for?
- _____ How many seconds did the red light go on for?
- _____ Which light was on the longest?
- _____ Which light turned off first?
- _____ Which light was on for 30 seconds?

Appendix G

Time Estimation Questions As Organized by Question Type

Task 1	Red & Green Lights Lit in Synchrony for 7 Seconds
Non-Leading (Age Appropriate)	Were the red and green lights turned on for the same amount of time?
Leading	Which light turned on first? Which light was on the longest? Which light turned off first? Which light was on for 30 seconds?
Ratio Estimate (Age Inappropriate)	How many seconds did the green light go on for? How many seconds did the red light go on for?

Task 2	Red Light Lit First, Followed by Green Light 2 Seconds Later, Both Lights Turn Off at Same Time Red Light = 7 seconds, Green Light = 5 seconds
Non-Leading (Age Appropriate)	Were the red and green lights turned on for the same amount of time? Which light turned on first? Which light was on the longest?
Leading	Which light turned off first? Which light was on for 30 seconds?
Ratio Estimate (Age Inappropriate)	How many seconds did the green light go on for? How many seconds did the red light go on for?

Task 3	Both Lights Turn On at Same Time, Green Light Turns Off after 5 Seconds, Followed by the Red Light at 7 Seconds Red Light = 7 seconds, Green Light = 5 seconds
Non-Leading (Age Appropriate)	Were the red and green lights turned on for the same amount of time? Which light turned off first? Which light was on the longest?
Leading	Which light turned on first? Which light was on for 30 seconds?
Ratio Estimate (Age Inappropriate)	How many seconds did the green light go on for? How many seconds did the red light go on for?