THE INFLUENCE OF TYPE OF CRIME, AGE OF WITNESS, AND EYEWITNESS
IDENTIFICATION DECISIONS ON JURORS' VERDICTS AND PERCEPTIONS OF
RELIABILITY

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Masters of Arts

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Abstract

Mock jurors ($N = 291$) read a simulated transcript of a murder trial that varied type of crime witnessed (drug deal vs. physical assault), age of witness (10 year old vs. 25 year old), and type of identification (positive vs. foil vs. non identification). The effects of these factors on jurors' verdict decisions and perceptions of reliability and credibility were investigated. Positive identification (ID) decisions led to higher continuous guilt ratings than foil IDs and non IDs, but no difference was found between foil ID and non IDs. Crime and age did not influence verdict. Reliability of crime details about which the witness testified differed primarily as a function of ID decision. An age by type of crime interaction was found for ratings of witness truthfulness and understanding of the crime. Exploratory analyses of how mock jurors' beliefs affected verdict decisions were included. Limitations and implications are discussed.

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The Influence of Type of Crime, Age of Witness, and Eyewitness Identification

Decisions on Jurors' Verdicts and Perceptions of Reliability

In a criminal trial, the jury must evaluate the integrity of many different types of evidence. Often, the primary type of evidence jurors are asked to consider is the accuracy of eyewitness identification testimony (Van Wallendael, Cutler, Devenport, & Penrod, 2007). Eyewitness evidence is said to be the largest single cause of wrongful conviction in criminal trials (Rattner, 1988; Wells, Penrod, Malpass, Fulero, & Brimacombe, 1998). Such wrongful convictions may be due in part to inaccurate eyewitnesses, but the jury is responsible for carefully evaluating the evidence presented. Research has identified several factors that may affect the way juries appraise eyewitness evidence, such as characteristics of the crime, criminal, and witness (Lindsay, 1994; Van Wallendael, 2007). The present study evaluated the role of witness identification error, witness age, and the type of crime, with regard to the decisions jurors make.

Juror Knowledge of Eyewitness Issues

A jury's function is to impartially evaluate admissible evidence in a case and render a verdict. In applying the law to the evidence provided to them, they also help to send a message about out-of-date laws, and act as the "conscience of the community," (Van Wallendael et al., 2007). As previously mentioned, a jury's primary source of evidence may be eyewitness testimony, and as jury members are randomly selected from the general population, their knowledge of eyewitness issues may be limited. Research concerning the degree of knowledge non-expert, jury-eligible adults possess about eyewitness testimony has helped define the boundaries of this knowledge. Through the

questioning of lay-persons, Shaw, Garcia and McClure (1999) revealed that jurors may be aware of factors related to eyewitness accuracy, such as visual abilities, knowledge of the suspect, and the emotional state of the witness during the crime. Juror knowledge of child witness issues has been mixed (Quas, Thompson, & Clarke-Steward, 2005). It was found that the majority of potential jurors had views of child witnesses that were consistent with current empirical findings. In particular, jurors displayed considerable accuracy in their judgments of children's general memory abilities (e.g. that 8-year old children can recount single and repeated events accurately and can remember events well enough to be reliable witnesses) and suggestibility (e.g. that children can be led by an adult into reporting entirely false events, including alleged sexual abuse). However, many jurors had little knowledge of the interview tactics that can lead to reporting errors in child witnesses or the limitations of professionals' abilities to detect inaccurate memories (Quas et al., 2005). Much of the knowledge used in evaluating eyewitness evidence was said to be based on everyday experience and common sense (Shaw, et al., 1999). It has also been suggested that much of the knowledge regarding eyewitness testimony is gleaned from popular media – movies, television, and media coverage of sensational cases (Nisbett & Wilson, 1977). Regardless of the original source of this knowledge, research suggests that jurors have some understanding of the limits of eyewitness ability.

Research has yet to come to a firm agreement as to whether this basic understanding of eyewitness ability is sufficient enough to inform the often life-changing decisions jurors must make. Even the most favorable results from juror knowledge

studies (e.g. Shaw, et al., 1999) show misjudgments and deficiencies that could lead to serious problems and even mistaken convictions. As well, it is unclear whether jurors thoroughly take these eyewitness factors into consideration when making verdict and credibility decisions. As this review will illustrate, numerous mock jury studies have found negative biases towards child witnesses, with jurors often rating their testimony as less reliable, less credible, and thus, leading to fewer guilty verdicts than that of adult witnesses. Clearly, this is not consistent with the apparent understanding of child witness abilities found by Quas et al. (2005). The present study hoped to expand upon what is known about juror opinions of child and adult witnesses, by exploring the possible influences of the type of crime witnessed and the identification decisions made by witnesses.

Eyewitness Identification Decisions

The present study examined how witness identification decisions influence jurors' ratings of credibility, reliability, and defendant guilt. Thus, a discussion of the possible identification decisions an eyewitness can make and a review of the relevant research issues is warranted.

Types of eyewitness identification decisions. The purpose of lineup identification is to gain proof, beyond the criminal's description, that the suspect is the criminal (Wells, 1993). When presented with a lineup, a witness may make one of three identification decisions: a suspect identification, a foil identification (i.e. identifying a known innocent lineup member) identification; or a non identification (i.e. no one is selected and the lineup is rejected). Each identification decision has implications for the way a juror

perceives the other details of the incident provided by the witness. For example, if a foil is identified rather than the suspect, the rest of the testimony provided by that witness (e.g. order of events, descriptions of clothing, etc) may be called into question. A foil identification is the only decision that can be confirmed by police to be in error. Both the identification of a suspect and the rejection of a lineup are decisions on the part of a witness that could be either correct or incorrect, and the interpretation of this information by jurors may vary due to other factors in the case. Jurors may believe that a lineup rejection is an error (i.e., the witness missed the criminal in the lineup), while a suspect identification may be believed by jurors to be an accurate positive identification. The present study attempted to further discriminate the influence these eyewitness identification decisions have on juror verdicts and ratings of reliability and credibility.

Eyewitness identification decision research. In a criminal trial, an eyewitness is usually required to provide details about the criminal incident, as well as an identification of the person who committed the crime. When the eyewitness is identifying the criminal from a lineup; this is a *recognition* task. However, when an eyewitness is providing details to the police or the court regarding what was witnessed, such as the time and place of an incident; this is a *recall* task. As these two types of evidence may have been gleaned from the same experience during the incident, one might assume that there would be a strong relationship between performance accuracy with details from the crime and identifying the suspect; between recall and recognition. That is, if a witness could correctly identify the suspect in a lineup, then the rest of their testimony (i.e. containing details related to the crime and the criminal's physical description, etc.) would probably

be accurate as well. Or, conversely, if an eyewitness has made a foil identification (i.e. a known error) the rest of their testimony may be questionable. However, no significant relationship has been found between description accuracy and identification accuracy for adults (Pigott & Brigham, 1985; Pigott, Brigham, & Bothwell, 1990; Pozzulo & Warren, 2003; Short & Dalby, 2007). In an early study by Pigott and Brigham (1985), participants were briefly exposed to the target individual under the guise of participating in a study investigating expressive behaviour and self-presentation. After viewing the individual for approximately 15 seconds, the participants were required to give a description of his physical features and asked to identify him from a lineup of six photos. No significant relationship was found between the participants' accuracy in describing the target person and the accuracy with which they identified him in a photo lineup. Thus, they concluded that it cannot be assumed that persons who are accurate in describing an individual also will be accurate when attempting to identify that individual. These results were supported by a field study featuring a staged crime (Pigott, Brigham, & Bothwell, 1990). In the staged crime, one of two individuals entered a bank and attempted to cash altered money orders. The sample consisted of the 47 bank tellers who served these individuals during the transaction. The descriptions of the criminals were taken from the bank tellers, and they were then asked to identify the criminals from a six-photo lineup. The results showed that description accuracy (as well as description congruence and completeness) were not predictive of identification accuracy, despite the improved ecological validity of the study. A more recent study (Short & Dalby, 2007) again added support to these previous findings. Here, participants viewed a short video depicting a man stealing a

woman's purse and then were required to give a description of the criminal. A brief distracter task (a puzzle where participants had to find the differences between two cartoon pictures) was given to the participants before they were asked to identify the criminal from a lineup of eight photos. Both the amount of detail and the accuracy of the description given by the participants were unrelated to the identification accuracy of the participants. Given this lack of an empirical relationship, it can be suggested that the accuracy or inaccuracy of an eyewitness' identification decision does not necessarily lead to a correspondingly accurate or inaccurate description of the crime details. One of the aims of the current study was to investigate juror perceptions of crime details when different identification decisions (i.e. positive identification, foil identification, or non identification) had been made by eyewitnesses.

Juror perceptions of eyewitness identification decisions. The present study was an extension of Pozzulo et al. (2006), who first looked at the influence of eyewitness identification decisions and age of witness on mock jurors' verdicts and perceptions of reliability. Participants were required to read a partial transcript of a mock trial and render verdicts and reliability ratings of crime details about which the witness had testified. In the transcript, a 9-year old boy or a 42-year old man witnessed the theft of a car that was later used in a bank robbery where a teller was killed. The witness either made a suspect identification, foil identification or non identification when asked to look at a police lineup. As predicted, positive identifications led to more guilty verdicts than non identifications but not more than foil identifications. Their judgments of identification reliability were also related to identification decisions made by witnesses.

Positive identification decisions were seen as significantly more reliable than non identifications, and non identifications (although unknown as an error) were seen as being as reliable as foil identifications (i.e. known errors). The mock jurors appeared to consider a non identification an error and comparable to a foil identification that is a *known* error. For these two identification decisions, the ratings of reliability they gave to other crime details (e.g. the reliability of the reported time of the car theft, the description of where the car was parked, the distance between the witness of the car, etc.) did not differ. Age of witness only seemed to influence the juror's overall judgment of witness credibility. Ratings of crime detail reliability and verdicts related to identification decisions were not found to differ by witness age. The authors concluded that jurors are somewhat sensitive to identification decisions in eyewitness testimony, but suggest that other factors may interact with identification evidence and influence perceptions of reliability for crime details.

Juror perceptions of inconsistent witness testimony. An early study by Lindsay, Lim, Marando, and Cully (1986) investigated the impact of a series of contradictory witness statements about the criminal's hair colour on mock juror decision making. Participants were instructed to act as mock jurors, listening to an audio version of a simulated trial. In the contradictory testimony condition, a female eyewitness gave a series of inconsistent statements. She testified that she originally said the criminal had blond hair, that she did not think that the defendant (who she identified from a lineup) could be described as blond, that she did not know if the defendant had altered her hair colour between the crime and the lineup, recalled the defendant's hair as dark at the time

of the lineup, and was certain of her identification. The control condition contained only consistent statements. The mock jurors were asked to rate the consistency of the testimony and render a verdict. The researchers had predicted that the contradictory testimony ought to have a pro-defense influence on the jurors' decisions, but it was found that it did not influence their verdicts despite being recognized as inconsistent.

Brewer and Burke (2002) attempted to replicate an earlier study by Berman and Cutler (1996) that looked at the interaction between eyewitness testimonial inconsistencies, eyewitness confidence, and mock juror decisions. As previous research had pointed to a perceived relationship (among mock jurors, and some members of the criminal justice system) between confident witnesses and accuracy of testimony (Devenport et al., 1997), the authors wanted to investigate whether a confident witness could be perceived as more accurate despite testimonial inconsistencies.

Mock jurors heard audio-taped testimony from a mock trial, with the witness either giving consistent or inconsistent testimony, while being confident or "less confident". As found by Berman and Cutler (1996), witness confidence was very persuasive with mock jurors. Mock jurors rendered a guilty verdict when the eyewitness was confident, regardless of the consistency of the evidence they provided.

A recent investigation by Dempsey and Pozzulo (2008) looked at jurors' perceptions and verdicts in relation to the age of witness, the witness' relation to the crime (victim or bystander) and the type of identification decision made. Mock jurors were required to read an excerpt from a trial transcript in which a drug deal was interrupted, subsequently killing an individual and thus, warranting a jury trial. Witness

age was either 40 or 10 years old, and the witness' role was either as a victim or a bystander. The witness made one of three identification decisions: a positive identification, a non identification or a foil identification. Results showed that mock jurors perceived positive identifications decisions as more reliable than non identification decisions, and more reliable than foil identification decisions. Foil identifications were viewed as less accurate than both non identifications and positive identifications. The identification decision made by the witness (a recognition task) was also found to influence how reliable the testimony for other crime details (a recall task) was perceived, particularly the description of the culprit's appearance. In other words, when the witness was perceived to be making an error in identification, the rest of his/her testimony was often discounted by jurors. As well, the type of identification decision influenced the dichotomous verdict chosen by jurors. More guilty verdicts were rendered when a positive identification was made than a foil or non identification. Not guilty verdicts were similar between foil and non identifications, despite the fact that non identifications may or may not be made in error.

An interesting addition to the body of research on inconsistent testimonial evidence was made by Brewer and Hupfeld (2004). They looked at how witness characteristics could influence perceived accuracy and verdict decisions when inconsistencies in testimony were present. They manipulated the group membership of the prosecution witness (i.e. in-group, out-group, or neutral/unknown), and the consistency of the testimony they provided. They presented a mock trial for an individual charged with assault. The offense had occurred at a protest rally against a right-wing

political party. As their participants were a very homogeneous group of university students, they portrayed one witness as a fellow university student who was peacefully protesting (in-group), the second witness as a member of the political party's entourage (out-group), and the third witness as a seemingly uninvolved community member who was just walking past at the time of the assault (neutral). The authors found that both variables affected the judgments of the mock jurors. When the testimony was consistent, the group effect was strong – participants rated the in-group and neutral witnesses as more accurate, producing more guilty verdicts than the out-group witness. When the testimony was inconsistent, most jurors appeared to dismiss it regardless of the witness group it came from – a not-guilty verdict was found across all groups, though the in-group received the highest number of guilty verdicts in this condition. Thus, it would appear that inconsistency in witness testimony trumps the influence of possible in-group/out-group biases held by jurors, at least in this case. The authors caution that these results are possibly limited to the population they studied and that more research in this area is necessary.

Nevertheless, other witness characteristics have been shown to influence juror decision making when they are presented with inconsistent testimony. Leippe and Romanczyk, (1989) investigated how participants' decisions were influenced by inconsistent statements provided by an adult or child eyewitness. Participants acted as mock jurors, hearing both inconsistent and consistent statements from either a child (6- or 10-year old) or an adult (30-year old) eyewitness. The inconsistent testimony condition included a series of statements, some of which were highlighted as

contradictions between on-the-stand testimony and pretrial statements. Statements made on-the-stand but not in the pretrial interviews were also included in this condition.

Participants in the consistent testimony condition heard statements without these inconsistencies. Results showed that inconsistency of the testimony did not significantly affect juror decisions of credibility and reliability of eyewitness testimony for the 10-year old child or the adult, but the 6-year old child was seen as more credible when his testimony was consistent than when it was inconsistent. These data suggest that inconsistencies in testimony do produce differences in juror decisions when witness characteristics, in this case, age, differ.

It is unclear whether inconsistencies in eyewitness testimony such as those reviewed here have the same effect as an identification error (i.e. foil identification). Again, it may come down to differences between juror perceptions of recall vs. recognition tasks, as many of the inconsistencies portrayed in these studies were within the crime description (recall task), not the actual identification of a suspect (recognition task). Dempsey and Pozzulo (2008), however, point towards jurors not being able to distinguish between witness recall and recognition tasks. The present study was concerned with juror perceptions of different results from the recognition task (i.e. identification decisions), and the effect it may have had on their judgments of the recall task (i.e. the description of the crime details). Moreover, how this relationship or lack thereof was influenced by witness age and type of crime.

Juror Perceptions of Child Witnesses

The eyewitness abilities of children have long been seen as inferior to those of adults. It is both an issue of a child's ability and an adult's perception. As early as 1900, Alfred Binet was positing that children's suggestibility was greater than that of adults (Binet, 1900). During his time, suggestibility was said to be due to psychological weakness and stemmed from internal factors only. Binet's ideas differed, however, because he was able to distinguish errors of reporting that result from memory changes (internal) from those that are due to social forces (external), much like current research views the issue (Goodman & Melinder, 2007). Later investigations by Whipple (1911) and Schjeldrup in 1934 (Goodman & Melinder, 2007) suggested children do not make accurate witnesses and that their testimony should be considered with caution. Unfortunately, the methodologies of these early studies are not entirely clear, though it is important to note that research was performed on this topic at the time.

Children as witnesses. Despite some negative perceptions, current research has shown that children are capable of providing accurate information about their experiences, although their ability to convey the information is affected not only by the qualities of their memories, but also by the type of retrieval mechanisms (i.e. interview techniques) employed and the quality of the communication with their interviewers (Pipe, Lamb, Orbach & Esplin, 2004). It is likely that commonly recognized developmental deficiencies in memory and other executive functions have contributed to the negative perceptions of child witnesses. Memory performance has been shown to be both quantitatively and qualitatively age-related (Bruck & Ceci, 2004), that is, as a child

ages, their performance improves. Older children and adults have a more elaborate knowledge base by which to interpret events and encode new information (Chi, 1978), and are less dependent on external cues to search their memory than young children (Davies, Westcott & Horan, 2000). Also, it has been suggested that young children have more difficulty than older children and adults when retrieving memories on command and in a verbal form (Bjorklund, 2005). This is especially problematic in forensic contexts due to known issues with leading questions and the increased suggestibility demonstrated with children. Numerous interview techniques (i.e. The Cognitive Interview, Stepwise Interview, etc.) have been developed in an attempt to address these problems (Goodman & Melinder, 2007). Without these procedures, false information can find its way into their descriptions of witnessed events (Goodman & Schaaf, 1997) and possibly lead to mistaken convictions, especially in sexual assault cases. Further, when describing individuals they have witnessed, older children (10-14 years of age) have been found to use fewer descriptors (e.g. hair colour & length, clothing, height, etc.) than adults (Pozzulo & Warren, 2003). These abilities (i.e. describing the witness in an interview) are largely recall-related which, as discussed above, may not reflect witness recognition (i.e. identification) performance.

The perception may be that child witnesses are similarly less accurate when identifying suspects from a lineup (a recognition task), but this is not always the case. Numerous studies have shown that when children are presented with a target-present lineup (i.e. the culprit is among the members of the lineup), their identification accuracy is comparable to that of adults (Parker, Harverfield, & Baker-Thomas, 1986; Parker &

Ryan, 1993; Pozzulo & Lindsay, 1998.) When children are presented with a target-absent lineup (i.e. the culprit is not among the members of the lineup), however, they are more likely to identify an innocent person than adults (Parker & Ryan, 1993; Pozzulo & Lindsay, 1998; Pozzulo & Dempsey, 2006). This pattern of responding has been suggested to be due to children feeling increased social pressure to identify someone from the lineup, even if the culprit is not present, (Parker & Ryan, 1993; Pozzulo & Lindsay, 1998). However, current research suggests that social pressure is not a complete explanation of these results (Pozzulo & Dempsey, 2006). Thus, research shows that there are limitations to children's recognition and recall abilities, but it would be unwise to discount children's contributions completely or to make a connection between the tasks.

The Canadian legal system largely reflects this stance on the abilities of child witnesses. The courts no longer consider children's testimony fundamentally unreliable or necessarily less reliable than adults' testimony. The Supreme Court of Canada has emphasized the need to employ a case-by-case approach to children's evidence when considering such evidence with respect to a particular child's ability and level of development. (*R.v R.W.*, 1992). As well, the Court noted that the standard of a "reasonable adult" may not always be appropriate when applied to child witnesses. That is, a child may be unable to communicate certain details important to adults (e.g. the exact time or place of an event) but it need not mean that child has misconceived the event and/or the perpetrator's identity (*R.v B.G.*, 1990; *R.v. RW.*, 1992). Despite the Court's cautious acceptance, eyewitness experts have shown concern with child eyewitness testimony, particularly regarding the suggestibility of children and their

accuracy in recall and recognition (Kassin, Tubb, Hosch, & Memon, 2001; Van Wallendael, et al. 2007). In a recent survey, 81% of the expert respondents had said that the suggestibility of young children is a fact so well documented that they could testify in court about it. Similarly, two-thirds of the respondents indicated that young children performed less accurately than adults overall. These findings suggest a negative view of child testimony may inform the criminal justice system, but currently Canadian trial judges have the discretion to decide on a case-by-case basis, depending on the individual child witness, whether a warning to jurors about a child's evidence is warranted (Nikonova & Ogloff, 2005).

To date, juror perceptions of child witnesses have varied greatly depending upon the particular study. Several studies have illustrated that child witnesses are often considered less accurate and less credible (as compared to adults) by mock jurors (Goodman, et al. 1987; Leippe & Romanczyk, 1989). In a large undertaking by Goodman et al. (1987), numerous conditions were tested in an attempt to explain the differences in jurors' perceptions of child and adult witnesses. Three experiments looked at different samples (college students vs. a random sample of individuals drawn from the local community), different types of crime (vehicular homicide vs. murder) and different delivery mediums (written transcripts vs. videotaped mock trial) to investigate this issue. It should be noted that in all these experiments, the witnesses were only *bystanders* and not victims. Across all three experiments, it was found that while age did not appear to influence the verdicts rendered by mock jurors, the ratings of credibility for child witnesses were significantly lower than adults. This result was unusual, as it would be

expected that the child witness' perceived lack of credibility would lead to fewer convictions based on the evidence they provide. The authors suggest these results could be due to their choice to make the evidence presented by witnesses ambiguous, so they could examine the potential biases about children, but no conclusive explanations were found. It should be noted that when the more realistic delivery medium (a videotaped mock trial) was used, linear trends showed that the lack of credibility appeared to lead to fewer convictions with child witnesses, but these results did not reach significance.

Leippe and Romanczyk (1989) also explored the differences in credibility and convictions with adult and child witnesses. The mock jurors in their studies read a transcript of a criminal trial and were asked to judge the credibility of the witness and render a verdict. In one of their studies (Study 2), child witnesses were perceived as less credible and fewer guilty verdicts were obtained with their testimony when the witnesses were 6 and 10 years of age vs. an adult. This result contradicts that of Goodman et al. (1987), and the authors here maintain that their approach contains no ambiguities or other issues that were implicated in the initial findings (Goodman et al., 1987). Leippe and Romanczyk (1989) also found similar patterns of credibility and judgments of guilt in Study 3 (previously described on page 10 of the current review). They examined how testimonial inconsistencies from child and adult witnesses influenced jurors' opinions of credibility and verdict. Results showed that inconsistency of the testimony did not significantly affect juror decisions of credibility and reliability of eyewitness testimony for the 10-year old child and 30-year old adult, but the 6-year old child was seen as more credible when his testimony was consistent than when it was inconsistent. Here it would

seem that young children are judged more severely than that of older children and adults, despite similar inconsistencies in testimony.

A more recent study by Newcombe and Bransgrove (2007) illustrated that the witness capabilities of adults are often overestimated, while children's capabilities are comparably underestimated. Mock jurors viewed videotaped interviews that featured a pair of witnesses (one inaccurate and one accurate witness, giving opposing evidence) within same-aged pairs (i.e. two children) and different-aged pairs (i.e. a four year-old child and an adult) describing an event they had witnessed. Participants were then asked to give their perceptions of witness characteristics (accuracy, suggestibility, honesty, reliability, and credibility) by nominating which witness demonstrated more of these qualities. As well, participants were asked to give their opinions of the witnesses' nonverbal markers (e.g. apparent confidence, body movements, eye contact, speed of responses, etc.). Lastly, the participants were required to complete a questionnaire measuring their perceptions and knowledge of factors that may influence eyewitness testimony (i.e. age of witness, type of crime, crime setting, type of questioning, etc.). When witnesses were paired with a same-aged individual, participants were able to detect the accurate testimony and correctly judged which individual scored higher on each of the witness characteristics (see above). However, when witnesses were paired with a different-aged individual, participants were more likely to report that the adult witness was more truthful than the child witness. In the condition where the adult witness was more accurate, the participants rated the adult significantly more positively on the witness characteristics (e.g. more accurate, less suggestible, more honest, more reliable,

etc.). When the child was the more accurate witness of the pair, there were no significant differences between the adult and child on witness characteristics (see above). This suggests that a child witness (despite testifying more accurately than an adult) is still considered to be more suggestible, less accurate, less honest, less reliable, and less credible than an adult witness. The authors interpreted these results as “an unwillingness to both believe those 4-year-old witnesses telling the truth and to not believe those adult witnesses telling lies” (Newcombe & Bransgrove, 2007). These results have implications for situations where an adult and a child may deliver opposing testimony, such as a sexual abuse trial.

Akin to their views on child witness credibility, mock jurors have been shown to judge the accuracy of child witness testimony more negatively than that of adults (Lieppe, Manion, & Romanczyk, 1993). To begin this study, children (ages 5-10) and adults participated in a laboratory session involving mock skin sensitivity experiment. This was designed to be a novel experience for all participants. After this session, participants were asked to provide videotaped memory reports of their experiences, which were then determined to be accurate or inaccurate by researchers. A second group of adult participants (acting as “fact finders” with no references to the legal system or its implications) then evaluated the accuracy of these inaccurate and accurate reports from children and adults. It was found that even when both the child and adults’ reports were accurate, the fact finders rated the child’s reports as less accurate and less believable than that of the adult. Thus, despite being accurate, the children presented their reports in ways that were interpreted as inaccurate by these fact finders. The authors suggest that

this may be due to the children's deficiencies in communication skills, which leads them to appear as inconsistent and therefore less accurate to adults. Also, it is suspected that the appearance of "youth" itself may influence the perceived consistency and credibility, as the commonly-held negative stereotype of children's memory abilities comes into play.

Stereotypes of child witnesses. It has been illustrated that potential jurors may be biased by different (stereotyped) perceptions of witness ability based on age. Ross et al. (Study 3, 1990) investigated this "stereotype" hypothesis of why young witnesses are often seen as less credible and less accurate than older witnesses. A questionnaire was given to participants that asked them to consider the eyewitness abilities of the average 6-, 8-, 21-, and 74-year-old witness. Participants were asked to rate each hypothetical witness on four dimensions using a 7-point scale. These dimensions included witness accuracy, susceptibility to misleading or suggestive questions, honesty, and how much weight they would give to the testimony of a witness of that age. Results showed that jurors do indeed fall victim to many commonly-held stereotypes about age. They believed that child witnesses are both less likely to deliver accurate testimony and more susceptible to suggestion than are adult witnesses (either "young" or "old"). As well, they reported that they would give less weight to the testimony offered by a child than by a young adult. In addition, the elderly witness was viewed more negatively than the young adult witness on these same dimensions. However, elderly witnesses were thought to be the most honest and sincere, while children and young adults were perceived equally on these measures.

To further investigate commonly held stereotypes of child witnesses (versus adult witnesses), a study by Sumner-Armstrong and Newcombe (2007) looked at the role of education in correcting these potential biases. To increase ecological validity, participants from the general community served as mock jurors and watched a videotaped trial in which a child witness testifies. Prior to the trial, half of the jurors received an educational package which introduced them to the main empirical findings in the child witness literature, such as the history of child witnesses, the memory capabilities of young children, and the current controversies and conflicting results in research. Within each education condition, half of the jurors viewed inaccurate child testimony, and the other half viewed accurate child testimony. Jurors watched the trial and then rendered verdicts. They also assessed the credibility, accuracy, honesty, and reliability of the testimony. Jurors in the educational condition also completed a knowledge measure based on the information found in their packages. Results showed that mock jurors who did not receive the education packages performed at levels no better than chance and statistically more poorly than did educated jurors, in terms of correctly rating the child witness' credibility, accuracy, honesty and reliability, as well as selecting the appropriate verdict. Education thus appears to enhance juror performance and possibly to combat the negative stereotypes that may be producing inaccuracies in jury decisions regarding child witnesses. The authors suggest that educational programs for jurors may be another procedural innovation that could improve legal proceedings and outcomes that involve children

Current research suggests that judicial declarations of witness competence may reduce juror bias against child witnesses. In a series of experiments, Connolly, Gagnon, and Lavoie (2008) asked mock jurors to read vignettes about child witnesses (5 or 13 years old) and adult witnesses (20 or 35 years old) involved in either a sexual abuse or motor vehicle accident case. In the child witness conditions, the testimony of the child was followed by either a verbatim competence evaluation followed by a judicial declaration of competence; a judicial declaration of the child's competence; a general judicial declaration that children are deemed competent to testify; or no mention that children are deemed competent to testify. The competence declaration consisted of a description of the requirement that all persons under the age of 14 must pass a competence examination, that one had been completed in this case, and that the judge declared "I have no hesitation in finding [child's name or 'all' depending on the condition] is competent to testify." Mock jurors were then required to render a verdict and rate the credibility of the witness and defendant. The results most relevant to the present study showed that the presence of the competency exam and the judicial declaration had an impact on both the 5 and 13 year old witness, but had a greater impact on the former. The authors suggest that the declarations coming from a credible source (i.e. the judge) reduced the bias against child stereotypes. These declarations may have caused a disproportionate boost in juror perceptions of the child witness, as in some conditions, it appeared that the credibility ratings decreased and the guilt ratings increased for the adult defendant as a result. Thus, it is uncertain whether a simple declaration of competence, while less time-consuming, is preferable to the more

thorough education package the jurors received in the study by Sumner-Armstrong and Newcombe (2007). Thus, the appropriate approach to reduce the influence of negative child witness stereotypes is still up for debate.

There is little doubt that negative stereotypes of children's memory abilities are related to decreased juror confidence in child witnesses. As the extent of the influence of these stereotypes is uncertain, the current study examined this issue and attempted to address this potential confound. Participants were required to complete a questionnaire evaluating their beliefs about children's (aged 10-years or less) memory ability, as well as their beliefs about credibility and accuracy as eyewitnesses compared to adults. The items in the questionnaire were based on the dimensions considered in other child stereotype research (Ross et al. 1990, discussed previously). The responses from this questionnaire were to be used to further explore the verdict, credibility, and reliability results of the current study.

Despite these prevailing stereotypes, several studies have found that mock juror perceptions actually favor child witnesses over adults. Peterson (1996) administered verbatim written transcripts of a trial featuring either a 7 year-old or 20 year-old witness to a sample of undergraduate mock jurors. In comparison with the adult witnesses, the children were considered to be more truthful, to lie less often, to be more accurate, and to be more likely to adhere to "the whole truth" criterion of a witness under oath. Others, to be reviewed shortly, have similarly found that children can be considered more credible, accurate, honest, or reliable witnesses as compared to adults (Ross et al., 1990) though

particular factors within these studies may be producing these results. One particular factor may be at play: type of crime.

Type of Crime

When examined more closely, it becomes apparent that the type of case may be influencing juror's perceptions of child witnesses. As suggested by Pozzulo, et al. (2006), the contradictory results of two jury decision-making studies may illustrate how juror ratings of child witnesses may be dependent on the case, or type of crime involved. The first study was that of Goodman et al. (1987), who used a trial summary of a vehicular homicide trial and varied the eyewitness' age to either 6, 10, or 30 years old. The witness in this case testified that they saw the defendant run a red light and hit a pedestrian. Jurors rated the 6 year-old witness as less credible than the other two ages, and the 10 year-old was rated less credible than the 30 year-old witness. Conversely, the case of Ross, et al. (1990), in Experiment 1, featured a simulated trial involving a defendant charged with possession of cocaine. The eyewitness, 8, 21, and 74 years of age, witnessed an individual enter an apartment with cocaine, which supported the prosecution's case that the defendant was already in possession of the drugs. The testimony of the child was rated as more accurate, confident, honest, forceful, and credible than the same testimony of the young adult. The elderly witness was also viewed less positively than the child, but more positively than the young adult. It was suggested that the young adult may seem to have a higher stake in the trial than a child or older adult, given the popular conception of drug use. As well, given that the child may not understand the implications of drug dealing, he or she may not be as emotionally

involved in the case as the older adults, and thus may be seen as providing more accurate and honest testimony. The events witnessed in the vehicular homicide (Goodman et al. 1987), did not require advanced social experience or knowledge of the law to be recognized as a crime, and perhaps this allowed jurors to fall back on stereotypes of witness performance more so than the case of the drug deal.

McCauley and Parker (2001) suggest that type of crime may be important when jurors decide the credibility of a child witness. Their study compared the impact of a child witness (aged 6 or 13 years) in either a sexual abuse trial or a robbery trial. Participants were asked to render a verdict in the case, as well as rate the credibility, honesty, and apparent memory ability for the witness. Unfortunately, the roles of the witness differed for each trial type, with the child as witness in the robbery trial, and the child as victim in the sexual assault trial. It was found that the child victim in the sexual assault trial was rated as more credible, more honest, and as having a better memory than in the trial for robbery. There were more guilty verdicts for the sexual abuse case as well. Age of the witness (6 vs. 13 years of age) did not appear influential. Thus, the type of crime appeared to influence the jurors' verdict decisions and witness ratings, but it is difficult to discern how much was due to the differing *role* of the witness in each case from these results.

A similar study (Nightingale, 1993) examined the type of crime and age of witness, but held the role of the witness (as a victim) constant across all conditions. The participants acted as mock jurors and evaluated a trial summary containing the testimony of a 6-, 9-, or 12-year old witness who was the victim in a wrongful injury (a hit-and-run

accident) or a sexual assault case (an incident of fondling in a park by a stranger). No effect of age was found across these conditions, but type of crime was related to the overall verdict. Jurors were more likely to decide in favour of the child victim in the wrongful injury case than the sexual assault case. The author suggests this may be due to the long-term physical disabilities said to be incurred by the victim in the wrongful injury case being weighed more heavily by jurors than the emotional trauma said to be caused by the sexual assault. These results contradict other studies that have suggested juries often find in favour of young children in sexual assault cases (Newcombe & Bransgrove, 2007). This affect has been consistently demonstrated with female jurors in particular, who more often side with the victim/prosecution in child sexual assault cases (Golding, Bradshaw, Dunlap, & Hodell, 2007).

This particular effect of type of crime is possibly due to the limited sexual knowledge jurors assume to be possessed by children. Here, jurors often decide that a child must be telling the truth and that the incident must have occurred, due to the sexual acts described in their testimony. Similar reasoning may apply to other types of crime, such as the drug deal in Ross et al. (1990), where children may not understand the legal implications of perpetrator's actions. The two-factor model of witness credibility (Goodman, Golding, & Haith, 1984) may better help explain the effects that are seen when type of crime is varied. It has been suggested that there are two dimensions of perceived witness credibility: cognitive competence and trustworthiness. The cognitive competence component involves a judgment of a person's memory accuracy and is related to perceptions of children's general cognitive development. Trustworthiness

involves an appraisal of the witness' honesty and sincerity while testifying. Depending on which dimension of credibility the jurors or judges emphasize, trustworthiness or cognitive competence, their opinions of child witnesses may vary. For example, if a juror stresses memory accuracy (e.g. perhaps in a motor vehicle accident case), child witnesses may be perceived as less believable than adults. It is likely that both personal experience and child witness stereotypes (e.g. recalling fewer details, less accurate and less likely to identify a suspect, more prone to suggestion, and less consistency) would lead to decreased confidence in a child's abilities. Conversely, if trustworthiness is more important to jurors, even very young children may be seen as being equally credible, or even more credible than adults. For example, if a child provides testimony that is unlikely to be fabricated due to a lack of appropriate knowledge and motivation for lying (e.g. in sexual abuse, or drug possession cases), their testimony may be seen as more credible than that of an adult. This two-factor model may, in part, explain why juror perceptions of child witnesses have been found to differ according to the type of crime involved.

Summary

The present study explored the role of type of crime in relation to identification decisions and juror's perceptions of child and adult witnesses, while holding the role of the witness (as a bystander, not victim) constant. Type of crime was manipulated in two conditions: a non-physical, adult-appropriate crime (a drug deal), and a physical, child-relevant crime (a physical assault). At present, no research has examined these variables together. The mixed opinion of the research community on juror perceptions of child

witnesses may be the result of the mediating effects of the type of crime used in each study. If this is the case, there may be implications for the criminal justice system, especially in respect to the way child witnesses are received by jurors.

The Story Model of Jury Decision-Making

Before the specifics of the current study are discussed, an overview of the theoretical research related to the juror decision-making process is necessary. The theoretical background of the current study was provided by the Story Model of juror decision-making (Pennington & Hastie, 1981; 1986). The Story Model of juror decision-making was originally proposed to address the deficiencies in existing traditional models, mathematical in nature, of juror decision-making. The four predominant mathematical models of jury decision-making in the 1970s included the information integration model, Bayesian models, the Poisson model, and the sequential weighting model (for a comprehensive review of these traditional models that is beyond the scope of the present study, see Pennington & Hastie, 1981). These previous models, such as the information integration model (Kaplan & Kemmerick, 1974) proposed that jurors make independent evaluations of evidence items on a single dimension of culpability in order to reach a final calculation of the probability of the defendant's guilt. However, given the complexity of evidence delivered during criminal trials, it is unlikely that jurors make evaluations in this manner. In contrast, the Story Model (Pennington and Hastie, 1986) notes that interdependencies of evidence items are critical to jurors and that jurors' final decisions often require reasoning about multi-attribute verdict categories rather than a single dimension of culpability. The Story Model is able to account for these multiple

sources of information and provide a conceptual account of what jurors are actually doing when asked to decide on a verdict for criminal cases.

As its name suggests, the Story Model claims that jurors impose story structures to organize and interpret information from evidence presented at trial. These structures help jurors understand the evidence and also encourage the formation of a pre-deliberation verdict. Jurors have two sources of information with which to construct these stories: 1) the information explicitly presented as evidence during the trial, and 2) their own expectations and knowledge. The Story Model divides the decision process into three stages: 1) the story construction stage; 2) the verdict category establishment stage; and 3) the story classification stage. First, in the story construction stage jurors evaluate the meaning and relevance of the evidence provided, which is then used to construct one or more plausible scenarios describing what happened during events testified to during the trial. The jurors' personal experiences and existing general knowledge of human behaviour and interactions may help inform them of the causal and intentional aspects necessary to devise a coherent and feasible story. The verdict category establishment stage is where the jurors learn of the decision alternatives (i.e. different verdicts) available to them. Here, jurors view each decision (verdict) alternative as a category with defining features (i.e., identity, mental state, action, and circumstance) with decision rules specifying their appropriate combinations. Pennington and Hastie (1986) give the following example of their theory in practice: a defendant may be found guilty of murder in the first degree if s/he is the true perpetrator (identity), if s/he had motive and intent to kill (mental state), if s/he had insufficient provocation for the murder

(circumstance), and if s/he killed in accordance with the plan (action). This stage usually occurs prior to the deliberation phase of a trial, after the judge has informed the jury of the options available to them by law. Lastly, in the story classification stage jurors must determine the “best match” between their story features and the verdict category features available to them. At this stage, they are essentially determining their verdict choice, and thus must also take into consideration the standard of proof and the presumption of innocence as instructed by the law.

Pennington and Hastie (1986, 1988) have investigated the validity of the Story Model of jury decision-making by questioning jurors about the way they approached the task of organizing evidence and rendering a verdict. When jurors were asked to discuss their decisions, it was found that their spontaneous responses were not simply lists of the evidence presented in the trial, but rather story structures featuring links for the appropriate causal relations (initiating events, psychological and physical states, goals, actions, and consequences) of the events featured in the testimony. It was found that the stories they constructed contained features (particularly psychological states and goals of the actors) that were related to the verdict categories (i.e. guilty of first degree murder, guilty of second degree murder, etc) available and also final verdicts decisions made by the jurors. These findings lend support to the validity of the Story Model of jury decision-making.

This model provides a solid theoretical basis for how jurors may reach verdicts in cases with multiple identification decisions. For example, in cases where the witnesses have identified a foil in a police lineup, the Story Model suggests that jurors will be able

to better organize and thus possibly better judge the credibility of the remaining testimony given this initial error. Where these types of errors have been made, it may be possible for jurors to rationalize the testimony with their own expectations, stereotypes, personal experiences, and/or knowledge about similar events in order for them to construct stories about what may have taken place. It is likely that jurors would also take this approach when considering testimony from witnesses of different ages (adult vs. child) and with different types of crime (physical, non-physical). For example, they may consider popular stereotypes or personal experiences of a child's cognitive ability and the relevance of different types of crime when evaluating and constructing a story structure from the testimony of a child witness vs. adult witness. It was predicted that the Story Model may thus lead to decreased ratings of credibility and reliability in child witnesses due to the negative stereotypes related to their performance that may be utilized by jurors. Despite this issue, and in light of the other options available (see above), the Story Model was considered the most appropriate choice for the present study.

The Mock Jury Paradigm

Jury decision-making research is often conducted using a mock jury paradigm. Because access to real jurors for research purposes is severely limited in the United States and illegal in Canada (Read, 2006), jury simulation studies are necessary to assess factors relevant to jury decision-making. This paradigm has been criticized as lacking ecological validity (e.g. Diamond, 1997) due to the use of undergraduate populations (vs. a community sample), the use of written transcripts (vs. more realistic simulations), and the absence of deliberations. However, some researchers are less critical of this

paradigm, and believe the benefits outweigh potential validity issues. Bornstein (1999) contends that the use of student mock jurors and presentation of simulated trials in written form are not necessarily limiting the ecological validity of these studies, considering that there are only a few research studies that have found significantly different results between different mock juror samples and different trial media (e.g. video recordings of a staged event vs. transcript in Fishfader, Howells, Katz & Teresi, 1996). Considering the stress an actual criminal trial may put on potential jurors (Bornstein, Miller, Nemeth, Page, & Musil, 2005), it may not be ethical, nor desirable, to replicate the experience in its entirety.

The following section outlines the rationale for the variable manipulations and the expected effects of these variables on jury decision-making within the theoretical framework of the Story Model of decision-making, and utilizing the mock juror paradigm.

The Current Study

Jury decision-making, as measured by verdicts rendered, and credibility and reliability ratings, was evaluated as a function of eyewitness identification type, age of witness, and type of crime. Twelve partial trial transcripts were created, one for each research condition, featuring the witness being questioned by the prosecution.

For the eyewitness identification variable, there were three conditions: positive suspect identification, foil identification, and non identification.

For the type of crime variable, there were two conditions: a physical crime, featuring a physical assault that the child (age 10) would understand as wrong (e.g.

children are able to recognize the moral and conventional unacceptability of physical violence consistently by 5 years of age, Cassiday, Chu, & Dahlsgaard 1997), and an adult appropriate crime, featuring a non-physical drug deal. As mentioned previously, Ross et al. (1990) found an effect of witness age (i.e. children were seen as more credible than young adults) on jurors' decision-making when using a drug deal in their study. The offender and the victim in both conditions was an adult male.

Finally, the age of witness variable had two conditions: a child witness (10 years old); and an adult witness (25 years old). The witnesses in both conditions were male, to avoid gender confounds and enhance comparability to the original study by Pozzulo et al. (2006).

The design was fully crossed. Participants were required to read the transcripts and render both dichotomous and continuous verdicts. A continuous scale allowed for greater sensitivity to detect statistical differences in verdict outcome. The dichotomous scale, however, provided greater ecological validity and may not be comparable to a continuous measure and as such, was also utilized in the present study. As an exploratory measure and in an attempt to assess the merits of the Story Model theory of juror decision making, participants were also asked to describe, in their own words, what factors they considered when making their final verdict decision. They were also asked to rate the reliability of the crime details, and witness credibility (defined as the witness' motivation to give a truthful account of his or her experiences, Wells, 1994), reliability (defined as how dependable or reliable the account of his or her experiences is, Wells, 1994), accuracy (defined as the extent to which statements are free of unintended error,

for example, forgetting dates of events, Wells, 1994), and truthfulness (defined as similar to credibility, but often interpreted in more of a moral sense, Mantwill, Kohnken & Aschermann, 1995), on a 100-point scale. Lastly, a questionnaire exploring the participants' beliefs about the memory and eyewitness abilities of child witnesses was administered at the end of the study.

As mentioned previously, this study was an extension of Pozzulo et al. (2006), which found that positive identifications lead to more guilty verdicts than non identifications, but not more than foil identifications. Non identifications were found to be as reliable as foil identifications, while positive identifications were seen to be more reliable than both non identifications and foil identifications. There was an effect of age as far as overall witness credibility was concerned, with the adult being more credible than the child, but no other age or identification effects were found. Type of crime was not examined in Pozzulo et al. (2006). The crime witnessed in Pozzulo et al. (2006) was the theft of a car, which was later used in a bank robbery where a teller was killed (thus warranting a trial by jury). From the results of this study, the story model, and the literature reviewed, what has been shown in the research in regards to the effect of eyewitness identification type on juror perception and with respect to age and type of crime, the following hypotheses were made.

Hypotheses

Type of identification. Consistent with previous findings (Pozzulo et al., 2006), it was hypothesized that when a witness (adult or child) makes a positive suspect identification decision, the mock jurors would render more guilty verdicts or give higher

ratings of guilt on the continuous scale than when a foil identification or non identification was made. It was further hypothesized that foil identifications and non identifications would be given roughly equivalent weight with regard to mock jurors' dichotomous and continuous verdict decisions. It was anticipated that the details of the crime would be perceived as less reliable in the foil identification and non identification conditions compared to the positive identification condition.

Age of witness. Consistent with previous findings (Pozzulo et al., 2006; Newcombe & Bransgrove, 2007; Goodman et al, 1987), it was hypothesized that the overall credibility of the witness would be lower for the child than the adult, regardless of identification decision. Further, it was hypothesized that fewer guilty verdicts would be rendered for the child witness' testimony compared to the adult witness' testimony.

Type of Crime. A type of crime by age of witness interaction was anticipated for ratings of overall witness credibility; hypothesized that the child would be considered more credible when the crime is not physical, based on previous research (Ross et al., 1990, [experiment 1]).

Beliefs about child witnesses. Consistent with previous findings (Sumner-Armstrong & Newcombe, 2007; Ross et al., 1990 [experiment 3]), it was hypothesized that negative beliefs about children's eyewitness abilities would be related to a decrease in continuous verdict ratings and decreased ratings of confidence and reliability for child witnesses.

Mock juror verdict reasoning. Given the exploratory nature of the analyses on the effects of mock jurors' reasoning for verdict decisions, no specific hypotheses regarding beliefs were made.

Method

Participants

Two hundred and ninety-one participants (195 women, 94 men, and two unreported) were recruited from the first-year Psychology student pool at Carleton University, in Eastern Ontario, Canada. To most closely approximate juror eligible individuals in Canada, all participants ($M = 22.80$, $SD = 6.88$, range: 18 – 62 years) had to be at least 18 years of age (Juries Act, 1990). The majority of the participants (66%) were Caucasian and eighty percent listed English as their first language. Participants received course credit for their participation. Upper year students also were invited to participate on a voluntary basis.

Design

A 2 (type of crime; physical vs. non-physical) X 2 (age of witness; adult vs. child) X 3 (type of identification evidence; positive identification vs. foil identification vs. non identification) between-subjects factorial design was used in this study. The physical crime was an incident of assault (an adult male hitting another adult male) witnessed in a park setting, and the non-physical crime was a drug deal (an adult male meeting with a male associate exchanging a small bag of white powder). The witnesses were either a 10-year-old boy or a 25-year-old male.

Participants were randomly assigned to read one of twelve transcripts, created to cross type of crime, age of witness, and type of identification. Participants then were asked to complete three questionnaires (See Appendix).

*Materials**Transcripts:*

A set of twelve mock trial transcripts were created for this study. Included in each transcript was an excerpt of a trial in which an eyewitness observed a physical or non-physical crime featuring two men. One of these men is later found murdered in his apartment, and the witnesses' testimony serves as evidence in the murder trial. Specifically, the suspect was charged with second degree murder, and evidence provided by the witnesses places the victim and suspect together earlier on the day of the murder. Participants were required to read the complete trial transcript, and were questioned about the credibility and reliability of the eyewitnesses and to provide an overall verdict decision. The mock trial transcript contained a dialogue in which the eyewitnesses and the defendant were questioned first by the prosecutor and then cross-examined by the defense lawyer.

Type of crime (physical and non-physical), age of witness (a 10-year-old boy and a 25-year-old male), and type of identification (positive identification, foil identification, and non identification) were manipulated in each transcript. All other details pertaining to each crime was kept constant within each crime condition (i.e. within the physical or non-physical case). All transcript conditions contained identical details of the physical description of the perpetrator, and the time of day and location of the crime, etc. For complete transcripts, see Appendix A.

Crime scenarios

Physical. A man (the victim) is seen sitting alone at a picnic table in the middle of a park. Families are picnicking nearby. After a short time elapses, the man is approached by a second adult male (the criminal) and they enter into conversation together. The conversation is visibly calm at first, but the suspect becomes increasingly aggravated as evidenced by his angry gestures and facial expressions. The criminal then begins to assault the victim, striking him repeatedly in the face. When blood is visible on the victim's face, the criminal stops and resumes a conversation with the victim. They then walk out of the park together. This fight and departure is witnessed by a male (adult or child) who was picnicking nearby with his family. He had an unobstructed view but was unable to discern any particular words during the exchange. The victim is found dead in his apartment later that evening. The fight and departure of the victim and criminal are used as evidence in a subsequent murder trial, at which the witness is testifying. Two other filler witnesses also described events related to the murder.

Non-physical. A man (the victim) is seen sitting alone at a picnic table in the middle of a park. Families are picnicking nearby. After a short time elapses, the man is approached by a second adult male (the criminal) and they enter into conversation together. The criminal produces a small plastic bag containing a powdered white substance, and gives it to the victim. The victim nods and then hands the suspect several brown-coloured bills (hundred dollar bills). The suspect appears to count the bills and then appears angry, pointing at the money and shaking his head (gesturing, "no"). They walk out of the park together. The drug deal and their departure are witnessed by a male

(adult or child) who was picnicking nearby with his family. He had an unobstructed view but was unable to discern any particular words during the exchange. The first male from the park is found dead in his apartment later that evening, and the drug dealer is the main suspect in the case. The drug deal and departure of the victim and criminal are used as evidence in a subsequent murder trial, at which the witness is testifying. Two other filler witnesses also described events related to the murder.

Dependent Variables

- 1) *Verdict*. Participants were asked to act as mock jurors and render a verdict using a continuous scale (0 being not guilty and 100 being guilty), and a dichotomous scale (i.e. guilty or not guilty). As well, verdict confidence was rated on a scale of 1 to 100. Participants were asked to describe in their own words how they made their final verdict decision. See Appendix B.
- 2) *Reliability of crime details*. Mock jurors were asked to give a rating of the perceived reliability of the 11 crime details described by the eyewitnesses, using a 1 to 100 point scale. Seven questions focused on the testimony of the witness manipulated in the study, while four filler questions related to the crime details from the testimony of other witnesses. See Appendix C.
- 3) *Witness performance*. Mock jurors were asked to rate the overall accuracy, credibility, reliability, honesty, and truthfulness of the witnesses' testimony using a 1 to 100 point scale. See Appendix C.
- 4) *Beliefs about children's eyewitness abilities*. Mock jurors were asked to complete a questionnaire to assess the degree to which they adhere to

stereotypes of children's eyewitness abilities. This questionnaire included such statements as "Eyewitness testimony provided by adults is more accurate than that provided by children" and participants were required to choose an answer on a scale of 1 to 100 (ranging from 1 *strongly disagree* to 100 *strongly agree*). See Appendix D.

- 5) *Manipulation check*. The manipulation check consisted of five multiple-choice questions. These questions directly assessed the salience of the experimental variables. See Appendix E.

Procedure

Participants recruited for this study were tested individually. Consent forms were given to each participant to read and sign. See Appendix F. After consent forms were completed, participants were randomly assigned a transcript and questionnaire package from one of the 12 conditions in the study. Participants were asked to read the transcript carefully and then complete the questionnaires included in the package. Once the packages were complete, the participants were debriefed and given a hand-out explaining the intention of the study. See Appendix G. Lastly, participants were asked if they have any questions and thanked for their participation.

Results

Preliminary Analyses

Manipulation Check. Manipulation checks in the form of multiple choice questions were given to participants to assess the salience of the three experimental variables. Only those questions that were directly relevant to the experimental variables (questions 1,4, and 5) were analyzed for accuracy, while the remaining filler questions (questions 2 and 3) were discarded. Two mock jurors incorrectly identified the witness' age at the time of testifying as either 10 or 25 years old. Similarly, two additional mock jurors were unable to correctly identify the type of identification decision (i.e. foil identification, positive identification, or non identification) made by the witness. With respect to type of crime witnessed, three mock jurors were unable to correctly identify the type of crime as either an exchange of white powder (drug deal) or an assault. Two participants neglected to complete the manipulation check questionnaire, and were not included in the analyses. Thus, nine participants failed the manipulation check by providing incorrect responses to at least one of the three relevant questions and were subsequently removed from the rest of the analyses ($N = 291$).

Child Beliefs Questionnaire. Significant correlations were found between the items on the child beliefs questionnaire. See Table 1 for these correlations. Because these items were significantly correlated, a composite score was created for each participant by totaling responses and dividing by the number of questions. The composite score was explored further for distribution patterns and it was found that scores were normally distributed ($M = 4.94$, $SD = 1.38$), with a range of 2 to 8.9 out of a possible 10. See

Figure 1. As the majority of the scores fell between 4 and 6 on the distribution, essentially the “neither disagree, nor agree” range, the scale was not helpful in determining mock juror opinion or potential stereotypes of child witnesses. As such, this measure was not utilized in any subsequent analyses in this study.

Figure 1. Histogram representing the frequency distribution of the child belief composite (*) scores.

Gender. As previous research has suggested a relationship between gender and juror decisions (e.g. female jurors are more likely to favour conviction than males in child sexual assault cases, Golding et al. 2007), a preliminary analysis investigating the impact of gender on the dependent variables was undertaken. Due to the higher ratio of

female ($N = 195$) to male ($N = 94$) mock jurors included in the study, and also the variation in gender distribution across conditions, it was necessary to examine the data for any effects gender may have. For mock jurors' guilt ratings for the defendant on a continuous scale, a univariate analysis of variance (ANOVA) revealed a significant main effect for gender, $F(1, 289) = 5.74, p = .017$, partial $\eta^2 = .021$. Female mock jurors gave the defendant significantly higher guilt ratings ($M = 5.33, SD = 2.64$) compared to male mock jurors ($M = 4.44, SD = 2.78$). However, a chi-square analysis conducted on the dichotomous verdict measure failed to find a significant relationship between gender and verdict, $\chi^2(1, N = 289) = 2.48, ns$. For mock jurors' ratings of verdict confidence, a univariate analysis of variance (ANOVA) revealed a significant main effect of gender, $F(1, 289) = 8.89, p = .003$, partial $\eta^2 = .031$. Male mock jurors gave significantly higher ratings of verdict confidence ($M = 7.39, SD = 1.94$) than female mock jurors ($M = 6.64, SD = 2.01$).

Effects of gender were found for some measures of credibility and reliability ratings for the witness and defendant. Male mock jurors gave significantly higher ratings of credibility, truthfulness, honesty, and accuracy of the defendant than female mock jurors. Similarly, male mock jurors rated the truthfulness of the witness significantly higher than female mock jurors. Only one crime detail (i.e., reliability of the witness' description of the distance between himself and the men in the park) showed an effect of gender, with male mock jurors giving higher ratings of reliability to this item than female mock jurors. Due to the nature of the data collection (i.e., classroom settings), gender was neither balanced for the overall sample nor counterbalanced across conditions. With

this in mind, the effects of gender were controlled for when necessary in subsequent analyses.

Table 1

Correlations between the ten questions assessing mock juror beliefs about child witnesses

	ER	IR	SG	AC	CP	CR	HN	CA	LE	CH
Event Recall (ER)	1	.80**	.28**	.54**	.02	.40**	.23**	.32**	.28**	.41**
Individual Recall (IR)		1	.35**	.59**	.01	.45**	.26**	.37**	.30**	.46**
Suggestiveness (SG)			1	.44**	.02	.48**	.15**	.23**	.22**	.40**
Accuracy (AC)				1	.07	.70**	.16**	.41**	.37**	.54**
Completeness (CP)					1	.14	.27**	.05	.08	.11
Credibility (CR)						1	.16**	.41**	.39**	.56**
Honesty (HN)							1	.12*	.01	.05
Cognitive Ability (CA)								1	.64**	.45**
Life Experience (LE)									1	.46**
Choice (CH)										1

* $p < .05$, ** $p < .01$.

Juror Verdicts

Continuous verdict. A 3 (type of identification; positive vs. foil vs. non identification) x 2 (type of crime; drug deal vs. assault) x 2 (age of witness; 10 vs. 25 years) between-subjects analysis of co-variance (ANCOVA) was conducted on mock jurors' guilt ratings for the defendant while controlling for mock juror gender. Significant main effects were found for type of identification $F(2, 289) = 8.94, p = .000$, partial $\eta^2 = .061$. The main effects of type of crime and age of witness did not reach significance, $F(1, 289) = .15, ns.$, and $F(1, 289) = .31, ns.$, respectively. No significant interaction effects were found.

Mock jurors' guilt ratings for the defendant were in the expected direction, with higher guilt ratings for the positive identification condition ($M = 5.98, SD = 2.40$) than the foil ($M = 4.68, SD = 2.67$) and non identifications ($M = 4.47, SD = 2.84$). Tukey HSD examining the mean differences of guilt ratings within the levels of type of identification revealed a significant difference between positive identifications and foil identifications ($p = .000$). An additional significant difference was found between positive identifications and non identification ($p = .000$). However, foil and non identification levels showed no significant difference ($p = .629$).

See Table 2 for a summary of mock jurors' mean guilt ratings for the defendant as a function of type of crime, age of witness, and type of identification decision, while controlling for mock juror gender.

Dichotomous verdict. A loglinear (logit) analysis was conducted to look at potential cause and effect relationships between mock juror gender, type of crime, type

of identification decision, and age of witness and the dichotomous verdict (i.e., guilty vs. not guilty). The loglinear (logit) analysis and subsequent z-tests on parameter estimates found no significant main effects for mock juror gender ($z = -1.324$, *ns*), type of crime ($z = .132$, *ns*), age of witness ($z = -.510$, *ns*), and type of identification ($z = -1.432$, *ns*), as well there were no significant interactions.

A logistic regression analysis also was performed in which the dichotomous verdict choice (coded as 0 for not guilty and 1 for guilty) was regressed on the following variables: type of identification, type of crime, age of witness, and mock juror gender. The full model was significant, $\chi^2(12, N = 289) = 23.36$, $p < .022$, and the Hosmer and Lemeshow test revealed a good fit between the data and the model (goodness of fit $\chi^2 = 6.45$, $df = 8$, $p = .587$). However, using the Wald test of significance, no variables were found to reliably predict dichotomous verdict. The results from the logistic regression are presented in table 3.

Verdict Confidence

A 3 (type of identification; positive vs. foil vs. non identification) x 2 (type of crime; drug deal vs. assault) x 2 (age of witness; 10 vs. 25 years) between-subjects analysis of co-variance (ANCOVA) was conducted on mock jurors' verdict confidence ratings while controlling for mock juror gender. No significant main effects or interactions were found.

Table 2

Mean (SD) guilt ratings as a function of type of identification, type of crime, and age of witness, while controlling for mock juror gender.

	Guilt Ratings ^a
Type of Identification	
Positive	5.99 (2.40)
Foil	4.69 (2.67)
Non	4.47 (2.84)
Type of Crime	
Physical	4.99 (2.77)
Non-Physical	5.10 (2.67)
Age of Witness	
Child	4.98 (2.81)
Adult	5.11 (2.64)

^a Guilt ratings were made on a scale from 1 to 10, with 1 being not guilty at all, and 10 being completely guilty.

Table 3

Logistic regression predicting verdict from type of crime, type of identification, age of witness, and mock juror gender.

Variables	β	<i>SE</i>	Wald	Sig. (<i>p</i>)	Odds ratio
Type of Identification					
Positive	-.37	.62	.35	.55	.69
Foil	-.29	.60	.23	.63	.75
Non ^a	0*				
Type of Crime					
Physical	.06	.59	.01	.93	.95
Non-Physical ^a	0*				
Age of Witness					
Child	-.52	.64	.66	.41	.59
Adult ^a	0*				
Gender					
Female	.46	.28	2.8	.09	1.6
Male ^a	0*				
Interactions ^b					
Age (1) by Crime(1)	-.10	.90	.00	.99	.99
Age (1) by Identification (1)	1.77	.90	3.86	.06	5.90
Age (1) by Identification (2)	.93	.87	1.12	.30	2.53
Crime by Identification (1)	1.31	.85	2.35	.13	3.70
Crime by Identification (2)	-.12	.86	.02	.89	.89
Age (1) by Crime (1) by Identification (1)	-1.23	1.25	.97	.33	.30
Age (1) by Crime (1) by Identification (2)	-.59	1.26	.22	.64	.56

Note. *SE* = Standard Error. ^areference category (coded as 0) for each predictor variable.

* This parameter is set to zero because it is redundant.

Reliability and Credibility

Crime details. A 3 (type of identification; positive vs. foil vs. non identification) x 2 (type of crime; drug deal vs. assault) x 2 (age of witness; 10 vs. 25 years) between-subjects multivariate analysis of covariance (MANCOVA) was performed to investigate the influence of witness age, identification decision, and type of crime on the reliability of the seven crime details while controlling for effects of juror gender.

A significant main effect of type of identification was found for four crime details. 1) The question “How reliable was Colin Davidson’s testimony describing what occurred during the interaction in the park?” was found to be significant, $F(2, 276) = 4.136, p = .017$, partial $\eta^2 = .03$. Tukey HSD revealed a significant difference between positive identifications ($M = 7.12, SD = 1.79$) and foil identifications ($M = 6.35, SD = 2.04$), $p = .014$. No significant differences were found between foil and non identifications ($M = 6.65, SD = 1.70$), $p = .561$, or non identifications and positive identifications, $p = .185$.

2) The question “How reliable was the identification decision by Colin Davidson?” was found to be significant, $F(2, 276) = 36.22, p = .000$, partial $\eta^2 = .20$. Comparisons using Tukey HSD found significant differences between each level of identification. Positive identifications ($M = 6.80, SD = 2.25$) were associated with the highest ratings of witness reliability, and were significantly different from non identifications ($M = 5.15, SD = 2.44, p = .000$) and foil identifications ($M = 3.63, SD = 2.99, p = .000$). Additionally, non identifications were significantly different from foil identifications, $p = .000$. All three levels were significantly different from each other.

3) The question “How reliable was the description of the appearance of the man in the park provided by Colin Davidson?” was also found to be significant, $F(2, 276) = 8.85$, $p = .000$, partial $\eta^2 = .06$. A Tukey HSD found a significant difference in the ratings of reliability between the positive and foil identification conditions ($p = .000$; $M = 6.60$, $SD = 2.25$, and $M = 5.18$, $SD = 2.46$, respectively), but no significant differences between positive identifications or foil identifications vs. non identifications ($M = 5.88$, $SD = 2.31$ $p = .116$ and $p = .107$, respectively).

4) Lastly, the question “How reliable was Colin Davidson’s description of the age of the man in the park?” was also found to be significant, $F(2, 276) = 6.46$, $p = .002$, partial $\eta^2 = .05$. A Tukey HSD found a significant difference in the ratings of reliability between the positive and foil identification conditions ($p = .005$; $M = 6.26$, $SD = 2.46$, and $M = 5.20$, $SD = 2.21$, respectively), and positive and non identifications ($p = .012$, $M = 5.30$, $SD = 2.18$), but no significant difference between foil identifications and non identifications, $p = .962$. No other main effects or interactions were found for reliability of crime details.

Reliability of the witness. A 3 (type of identification; positive vs. foil vs. non identification) x 2 (type of crime; drug deal vs. assault) x 2 (age of witness; 10 vs. 25 years) between-subjects multivariate analysis of covariance (MANCOVA) was performed to investigate the influence of witness age, identification decision, and type of crime on the reliability, credibility, honesty, truthfulness, and accuracy of the witness, controlling for effects of juror gender. A main effect for age was found, with significant differences between adult and child witnesses ratings of honesty, truthfulness, and

understanding of the crime. The witness' testimony was rated as significantly more honest when he was portrayed as 10 vs. 25 years old [$F(1, 276) = 11.40, p = .001$, partial $\eta^2 = .04$; $M = 8.03, SD = 1.74$, and $M = 7.35, SD = 1.77$, respectively]. Similarly, the witness' testimony was rated as more truthful when he was portrayed as 10 vs. 25 years old [$F(1, 284) = 4.36, p = .04$, partial $\eta^2 = .02$; ($M = 7.60, SD = 1.82$, and $M = 7.17, SD = 1.82$, respectively)]. Witness understanding of the crime in the park also differed significantly by age, $F(1, 276) = 11.99, p = .001$, partial $\eta^2 = .04$, with the child witness rated as having less understanding ($M = 5.35, SD = 2.55$) than the adult witness ($M = 6.42, SD = 2.89$).

A main effect of identification type was found, specifically regarding the accuracy of the witness' testimony, $F(2, 276) = 7.12, p = .001$, partial $\eta^2 = .05$. Tukey HSD revealed that witness testimony in the positive identification level was given significantly higher ratings than that of the foil identification level, ($M = 6.90, SD = 2.04$, and $M = 5.77, SD = 2.25$, respectively, $p = .001$.) Non identifications ($M = 6.15, SD = 1.78$) and positive identifications also differed significantly, $p = .046$. Accuracy ratings for the foil identification and non identification levels did not significantly differ, $p = .481$.

Lastly, a significant age by type of crime interaction was found for both ratings of truthfulness of witness' testimony, and witness understanding of the crime in the park. For ratings of witness truthfulness, $F(1, 276) = 6.00, p = .015$, partial $\eta^2 = .021$, mock jurors gave the child witness higher ratings ($M = 7.84, SD = 1.77$) than the adult witness ($M = 6.90, SD = 1.97$), but only if the crime was physical (i.e., assault) in nature. See

Figure 2. In terms of witness understanding the crime, $F(1, 276) = 14.81, p = .000$, partial $\eta^2 = .051$, mock jurors gave the adult witness higher ratings ($M = 7.16, SD = 2.84$) than the child witness ($M = 4.87, SD = 2.54$), but only when the crime was non-physical (i.e., drug deal) in nature. See Figure 3. No other significant interaction effects were found.

Figure 2. Interaction plot showing mean truthfulness ratings for the witness's testimony as a function of the age of witness and type of crime.

Figure 3. Interaction plot showing mean ratings of the witness' understanding of the crime as a function of the age of witness and type of crime.

Reliability of the defendant. A 3 (type of identification; positive vs. foil vs. non identification) x 2 (type of crime; drug deal vs. assault) x 2 (age of witness; 10 vs. 25

years) between-subjects multivariate analysis of covariance (MANCOVA) was performed to investigate the influence of witness age, identification decision, and type of crime on the reliability, credibility, honesty, truthfulness, and accuracy of the defendant, controlling for effects of juror gender. There was a significant main effect of identification decision, with significant differences in mock juror ratings of truthfulness, honesty, and accuracy of the defendant.

In terms of the truthfulness of the defendant's testimony, $F(2, 276) = 4.866, p = .008$, partial $\eta^2 = .03$, Tukey's HSD revealed that mock juror ratings were significantly lower when the witness made a positive identification ($M = 4.05, SD = 2.09$) than when a non identification ($M = 5.02, SD = 2.10$) was made, $p = .006$, but not significantly different from when a foil identification ($M = 4.71, SD = 2.19$) was made, $p = .076$. Mock juror ratings of truthfulness did not significantly differ when the witness made a foil identification or non identification, $p = .610$.

Mock juror ratings of the defendant's honesty while testifying were also found to differ by witness identification decision, $F(2, 276) = 4.463, p = .012$, partial $\eta^2 = .031$. Post hoc comparisons using Tukey's HSD indicated that a similar pattern was found, as mock juror ratings of defendant honesty were significantly lower when the witness made a positive identification decision ($M = 4.12, SD = 2.10$) than non identification ($M = 5.05, SD = 2.27$), $p = .01$, but not significantly lower when a foil identification ($M = 4.79, SD = 2.08$) was made, $p = .079$. As well, mock juror ratings of defendant honesty did not significantly differ when the witness made a foil identification or non identification, $p = .691$.

Lastly, mock juror ratings of defendant accuracy were found to significantly differ according to witness identification decision, $F(2, 276) = 4.142, p = .017$, partial $\eta^2 = .029$. Post hoc comparisons with Tukey's HSD found a similar pattern of differences. Mock juror ratings of defendant accuracy were significantly lower when the witness made a positive identification decision ($M = 4.16, SD = 2.07$) compared to a non identification decision ($M = 5.06, SD = 2.18$), $p = .01$, but not compared to a foil identification ($M = 4.53, SD = 2.09$), $p = .45$. As well, foil identifications and non identifications did not significantly differ, $p = .22$.

Beliefs, Reliability, and Verdict

An analysis was conducted to explore the extent to which mock jurors' preexisting beliefs about children's abilities as witnesses affected their ratings of witness and defendant reliability and credibility, and verdicts rendered in accordance with the Story Model of jury decision-making (Pennington & Hastie, 1981, 1986). Specifically, an exploratory analysis of mock jurors' answers to the open-ended question that asked them to indicate what factors they considered in reaching their verdict was conducted. This was intended to investigate whether any of the three factors of interest (i.e. type of crime, age of witness, and type of identification) were explicitly specified by mock jurors as reason(s) for their verdict decisions, and as a supplement to the Beliefs Questionnaire. The answers to the open-ended question revealed that factors other than the experimental variables also affected their verdict decisions.

The frequency of responses was analyzed. Two independent raters, blind to mock jurors' verdict decisions and experimental condition, coded the frequency of the

responses. First, two sets of 60 (approximately 20% of the total sample) answers were given to independent raters, who transcribed and compiled the reasons given by mock jurors for their verdict decisions. Raters then met together to compile a master list of all the reasons/factors from their respective lists. Factors were combined where there was clear overlap and all other factors that were not combined were preserved. A total of 25 verdict reasons were identified, (see Appendix F). Twenty cases were selected at random and coded by each rater. Discrepancies in scoring were discussed and a decision was made as to how to code them. This process was repeated until an inter-rater reliability coefficient of .80 was obtained. The raters then used this final coding scheme to independently rate mock jurors' responses for the frequency of each verdict decision.

The majority (56%) of mock jurors who found the defendant not guilty cited the lack of evidence against the defendant. For the mock jurors who found the defendant guilty, the most (85%) cited reason was a lack of evidence proving the defendant's innocence, or in other words, a "guilty until proven innocent" stance. See Table 4 for frequencies and percentages.

Among the three factors investigated in this study (i.e., identification decision, type of crime, and age of witness), it is apparent that the mock jurors took some of these into account when rendering their verdict. Mock jurors cited reasons related to the type of identification made by the witness for both the not guilty and guilty verdicts. Witnesses making a positive identification influenced some mock jurors (14%) who rendered a guilty verdict. Conversely, for those rendering a not guilty verdict, mock jurors cited the witness making a non identification (17%) or a foil identification (7%)

among the reasons not to convict the defendant. Interestingly, the type of crime did appear to influence both guilty and not guilty verdicts, specifically the non-physical drug deal. Several mock jurors mentioned the drug deal (7%) as informing their rendering of a guilty verdict, specifically relating the negative stigma of dealing drugs to a higher likelihood of the defendant committing murder. Among the not guilty verdicts, mock jurors (6%) mentioned the drug deal as informing their verdicts. Here, the negative stigma of dealing drugs/purchasing drugs appeared to suggest to mock jurors that the victim was often associating with questionable individuals and that someone else could have committed the murder. (E.g., "... if the victim was a frequent cocaine user... he may also have borrowed money from other sources.") Although it does not appear to have had a significant influence on verdicts rendered, the choice of a drug deal as a type of crime may have introduced some potentially confounding implications.

To a lesser extent than the other factors, age of witness seems to have made an impact on some mock jurors' verdict decisions, specifically those who found the defendant not guilty. Six percent cited the unreliability of child witnesses as influencing their verdict, in contrast to the 2% who mentioned this despite rendering a guilty verdict. This may also be related to the mock jurors' perceived knowledge of eyewitness issues, as only 2% of those who rendered a guilty verdict made any mention of knowledge of eyewitness issues, versus the 5% in the not guilty verdict. (E.g., "... and eyewitness testimony is notoriously unreliable.") Lastly, the witness being an adult, as anticipated, was not explicitly specified by mock jurors as affecting their verdict.

Table 4

Frequency (%) of most cited responses to the open-ended question assessing mock jurors' reasons for verdict choice.

Class of Responses	Frequency (%) ^a
Guilty ($n = 104$) ^b	
Lack of evidence proving defendant's <i>innocence</i>	93 (85%)
Defendant had a motive	49 (45%)
Witness made positive identification decision	15 (14%)
Defendant was lying	10 (9%)
Type of crime (drug deal)	8 (7%)
Not Guilty ($n = 163$) ^b	
Lack of evidence against the defendant	93 (56%)
No witness to actual murder	38 (23%)
Reasonable doubt	31 (19%)
Witness did not identify anyone	29 (17%)
No physical evidence (e.g. DNA, etc.)	27 (16%)

^a Percentages do not add up to 100 given that some participants gave more than one answer.

^b Sample sizes for both groups are lower than the original ($n = 112$ for guilty and $n = 179$ for not guilty) since 24 participants (8 and 16, respectively) failed to answer the open-ended question.

Discussion

The present study investigated the effects of identification decision, type of crime and age of witness on juror verdicts and perceptions of credibility and reliability. The primary goal of this study was to further explore the relationships between these variables, and to expand upon the relative lack of information concerning the effects of this combination of variables on juror decision making. As the study was completed within the theoretical framework of the Story Model of jury decision making (Pennington & Hastie, 1981, 1986), an exploratory analysis of the preexisting beliefs about child witnesses and the factors influencing mock jurors' verdict decisions was also conducted.

Child Beliefs Questionnaire

The Child Beliefs Questionnaire was intended to evaluate the extent to which mock jurors adhered to stereotypes of child witness performance, and as well, indicate an overall negative or positive view of child witnesses. This questionnaire was constructed specifically for this study, but was strongly based on the dimensions Ross et al., (1990) utilized in the questionnaire for their investigation of mock juror stereotypes of child, adult, and elderly witnesses. Due to time constraints, the Child Beliefs Questionnaire in the present study was not subject to any pre-testing, and as such, its utility was not assessed prior to its inclusion in the questionnaire package. Unfortunately, this measure offered little discriminative value, the vast majority of the composite scores fell to the centre of the response scale, indicating that mock jurors neither agree nor disagree with the questions presented. Thus they did not reliably express a negative (or positive) view of child witnesses or demonstrate any adherence to child witness stereotypes.

As other studies (Ross, et al., 1990, Newcombe & Bransgrove, 2007, & Sumner-Armstrong & Newcombe, 2007) have reliably demonstrated that negative stereotypes of child witnesses have been held by some mock jurors and that these may lead to decreased ratings of credibility, reliability, accuracy, and honesty of child witnesses, it is likely that the fault lies in the construction of the Child Beliefs Questionnaire. Social desirability, in the sense that participants may not have wished to appear to hold very positive or negative views of child witnesses may also have played a role. Given these results, this measure should be refined and tested prior to its use in any future investigations. As the Child Beliefs Questionnaire was included as an accessory exploratory measure in the current study, its failure is not detrimental to the remainder of the present study.

Effect of Mock Juror Gender

Mock juror gender has been the focus of many studies, primarily involving the adjudication of child sexual assault trials. The general consensus of these studies has been that female mock jurors typically give higher guilt ratings and lower credibility ratings to defendants and higher credibility ratings to the complainant (Schutte & Hosch, 1997). However, it could also be a matter of the different attitudes that are often associated with each gender role, and thus, not juror gender in itself, creating the differences. For example, it has been shown that men who were more empathetic towards victims of child sexual abuse and who held attitudes relevant to child abuse cases similar to those more often associated with women (e.g. pro-feminist attitudes), were more likely to side with the victim in such cases. Conversely, women who were less empathetic and

held relevant attitudes that were most often associated with men (e.g. believing common rape myths) were less likely to be pro-victim, despite their gender (Bottoms, 1993).

As much of the research into mock juror gender differences has focused on child sexual assault cases, cases that most often feature the *victim* as the star witness, it was uncertain whether the same gender differences would be found when the witness was not a direct victim of the defendant and when the crime was not sexual in nature, as in the present study. The preliminary analyses included an investigation of the potentially confounding effects of mock juror gender due to the very unequal proportion of male and female mock jurors, and the uneven gender distribution across groups that may have occurred despite random sampling. As anticipated, gender was found to have an effect on verdict, though only on the continuous measure. Female mock jurors gave the defendant higher guilt ratings than male mock jurors. The dichotomous measure of verdict showed no significant gender differences, but it should be noted that none of the other variables (i.e., type of crime, type of identification, or age of witness) appeared to influence dichotomous verdict decisions either. Mock juror gender was also not a reliable predictor of dichotomous verdict choice, though it approached significance in the analysis. The lack of gender differences with the dichotomous verdict scale illustrates the reasoning for the inclusion of a continuous verdict scale, as the continuous scale allows for greater sensitivity to detect statistical differences in verdict outcome. The lack of gender differences with the dichotomous verdict may also be a reflection of the limitations of the trial transcript used in this study (discussed below).

Interestingly, the pattern reversed with ratings of verdict confidence, as male mock jurors gave significantly higher ratings than female mock jurors. Kinstle, Hodell, and Golding (2008), in their investigation of juror perceptions in a case of elder abuse, also found that male mock jurors gave higher ratings of verdict confidence than female mock jurors, and suggest it may be related to differences in the way men and women evaluate the evidence presented in the trial transcript. Kinstle et al. (2008) propose that males, in comparison to females, may require a higher standard of proof before they are willing to convict, and that standard of proof needed is often not reached in jury simulation research (e.g. due to truncated or purposely ambiguous trial transcripts lacking physical evidence, etc.) Thus, male mock jurors' confidence in the *not* guilty verdict is increased.

There was a gender difference found on ratings of reliability for one crime detail ("How reliable was Colin Davidson's description of the distance between himself and the two men in the park?"), with male mock jurors rating this as more reliable than female mock jurors. Similarly, male mock jurors gave significantly higher ratings of the credibility, truthfulness, honesty, and accuracy of the *defendant* than female mock jurors, which supports previous findings discussed above. Male mock jurors also gave significantly higher ratings of truthfulness of the *witness*, which is somewhat contrary to predictions. As mentioned previously, the bulk of research suggesting gender differences in mock juror decision-making has featured child victims in sexual assault cases. Recent research has begun to extend these findings to cases featuring non-sexual offenses and

with victims other than children (i.e. the case of elder abuse in Kinstle et al. 2008). The current study may provide additional support for future research in this area.

Type of Identification

Verdict. Consistent with the first hypothesis, jurors gave higher guilt ratings on the continuous verdict scale for positive identifications than both foil identifications and non identifications. This pattern is largely consistent with previous studies where positive identifications lead to higher guilt ratings, or more guilty verdicts (Pozzulo, et al, 2006) than foil identifications or non identifications. Positive identifications have been shown to be persuasive evidence that can lead to conviction (Wells, et al., 1998), despite the possibility that they may be in error (i.e. the witness may have identified an innocent suspect). A foil identification is the only identification decision that can be determined to be in error. Interestingly, these results show that mock jurors consider a foil identification (i.e. a known error) to be as reliable as a non identification, which, like a positive identification decision, could have been made in error or could be correct. To many, particularly those who are uneducated in identification decision options, these differences may not be immediately apparent. This lack of discrimination by mock jurors may support the use of expert testimony to inform jurors of the implications of each of these types of identification. Some critics (Yarmey, 2001) have suggested that expert eyewitness testimony is not needed because it is a matter of common sense on the part of the juror, but this argument is not entirely supported by these results.

Verdict was also rendered by mock jurors on a dichotomous scale (i.e. guilty or not guilty), which was included to increase ecological validity and mimic real world

guilty versus not guilty verdicts. Interestingly, dichotomous verdict showed no differences as a function of identification decision, nor did identification decision offer any power to predict which verdict would be chosen by mock jurors. When dichotomous verdict is more closely examined, it is apparent that the majority of mock jurors voted not guilty across all identification conditions. A plausible explanation for this result would be that the standard of proof in all criminal trials requires jurors to find the defendant guilty "beyond all reasonable doubt." These non significant findings may reflect mock jurors' hesitation to provide an absolute verdict of guilty, despite making their ratings in the higher end of the continuous verdict scale. This was largely supported by the reasons mock jurors gave for their verdict decisions, with many who voted "not guilty" citing a lack of evidence and reasonable doubt as their primary reasons for not convicting the defendant. Reasons for verdict decisions will be discussed shortly.

Type of identification decision made by the witness was anticipated to have an effect on the verdict confidence of the jurors, with higher confidence ratings in the positive identification conditions than the foil identification and non identification conditions. Confidence in the mock jurors' verdict decisions was not found to differ according to identification type. Due to the nature of data collection, it was unreasonable to create a transcript mirroring the length and detail of a real murder trial. Much physical evidence was omitted to increase mock juror dependence on eyewitness evidence. The resulting transcript (six pages) was much shorter and less detailed than what most individuals would probably expect from a murder trial, possibly lowering their overall confidence in their decisions. This truncated version of a trial likely contributed to these

verdict confidence results, possibly by overriding any differences that may have been caused by the manipulated variables.

Crime details. As hypothesized, mock juror ratings of the reliability of the crime details were found to differ by identification decision. Specifically, it was predicted that the foil identification and non identification decisions would result in lower ratings of credibility. Four of the seven crime details showed differences between the three levels of identification decision, but different patterns were found for each. The question regarding the reliability of the witness' identification decision showed clear differences between each type of identification decision, with highest ratings of reliability made in the positive identification condition, followed by the non identification condition, and the foil identification condition. It would appear that witnesses were able to recognize that a foil identification is a true error, and thus gave it lower ratings than a non identification decision. The reliability of the remaining crime details (description of what occurred during the interaction in the park, the description of the appearance of the man in the park, and the description of the age of the man in the park) showed differences between the positive and foil identification conditions, with lower ratings of reliability going towards the foil identification. However, when it came to the non identification condition, ratings failed to differ from both positive and foil conditions on all these items. This apparent "middle ground" of opinion on these items may suggest that mock jurors are finding non identifications more difficult to interpret. At the very least, they are not considering a non identification an outright error.

It is apparent by these results that jurors in this study are not separating recall and recognition testimony. This is consistent with the findings of Pozzulo and Dempsey (2008), as it appears that witness identification decision has influenced the reliability ratings for the crime details reported by the witness. This is contrary to past research (Pozzulo, et al. 2006) suggesting that jurors do in fact separate recall and recognition testimony. Indeed, laboratory research (Wells, 1984) has suggested that performance on recall and recognition may be guided by different processes, thus, suggesting that witness performance on recognition (e.g., identification) tasks may not be related to performance on recall (e.g., crime detail) tasks. It is unclear whether the current study's trial transcript influenced these outcomes, as it contained more vigorous and challenging cross-examination of the witness than that of Pozzulo et al. (2006).

The transcript may have also had an effect on the mock jurors' perceptions of the crime details that were not significant. These included the description of the distance between the witness and the men in the park, the description of the location in the park, and the witness' in-court demonstration of his visual ability. Aside from the latter crime detail, none of the crime details provided by the eyewitness were confirmed as either correct or incorrect. The structure of the transcripts included questions regarding the details of the crime other than the identification decisions but did not confirm or reject the validity of those details. It was anticipated that the reliability of the details, which were identical across all conditions, would be affected by the identification evidence presented. It appears that this was the case for at least some of the crime details, but not others.

Witness and defendant reliability. Type of identification decision also appeared to influence some of the ratings related to the performance of the witness and defendant. For the witness, their overall testimony was considered to be more accurate when they made a positive identification decision than foil identifications or non identifications. Ratings of accuracy did not differ between the foil identification and non identification conditions, suggesting again that jurors may not be able to recognize the implications of what these two types of decisions represent.

A reverse of this pattern was found with the defendant's ratings of honesty, truthfulness and accuracy in relation to identification decision made by the witness. The pattern of ratings was similar for these types of defendant performance. When a positive identification decision was made, ratings were significantly lower than when a non identification decision was made, for both the accuracy and honesty ratings of the defendant's testimony. With both accuracy and honesty ratings, foil identifications failed to differ from positive identifications or non identifications. Truthfulness of testimony showed a slightly different response pattern, with positive identifications showing lower ratings than foil identifications. Non identifications were not significantly different from either condition. Thus, it appears that type of identification decision also has an effect on mock juror perceptions of truthfulness, honesty, and accuracy of the *defendant's* testimony. This is an intriguing result, as the defendant's testimony remained the same across all conditions in the trial transcript. Here, mock jurors appear to be judging the accuracy of the defendant's testimony based on the identification made by the witness.

This result provides further support that identification evidence is powerful and persuasive to mock jurors.

Age of Witness

Verdict. A very large body of research has shown the effects of age of witness on jurors' verdict decisions and ratings of reliability (Goodman, et al. 1987; Leippe & Romanczyk, 1989). This research led to the prediction that child witnesses would be perceived by mock jurors as less reliable than adult witnesses, and thus, they would render fewer guilty verdicts (or lower guilt ratings) when the witness was a child. In the present study, however, age had no influence on dichotomous or continuous verdict. Indeed, for dichotomous verdict, verdict choices for the adult manipulations were almost equal in distribution to the verdict choices for the child manipulations. Verdict confidence, as found with the identification decision conditions, showed no effects of age of witness. Similarly, the perceived reliability of the crime details presented by the witness did not differ according to age. These results are consistent with the findings of Pozzulo et al. (2006), of which the present study was an extension.

The contradiction of results could be due to the modality in which the study was presented. It is possible that these results were affected by the written nature of the trial presentation. In the current study, jurors could not see or hear how the witnesses presented their testimony, they simply read the transcript. In order to keep the transcripts identical (aside from the manipulated variables) the expressions, hesitations, and general diction of the witnesses (i.e. adult and child) were written similarly. Only the stated age of the witness differed. Thus, the witness had to sound like a 10 year old child while also

using words and phrases that a 25 year old adult would use. Perhaps the language used in this transcript did not allow jurors to tap into their previous experiences with children and their abilities, so jurors may have failed to incorporate this information when constructing a “story” of the events to inform verdict choices, as explained earlier in the Story Model of jury decision-making (Pennington & Hastie, 1986). If this trial had been presented in audio or video format, additional indicators of performance may have become available to jurors. It has been shown that presentation mode of eyewitness evidence has an impact on the perception of witnesses by mock jurors (Eaton et al. 2001), so perhaps the child witness would have been viewed as less reliable had the mock jurors been able to see them testify (i.e., in a video taped trial). Replication of this study using a videotaped stimulus may result in more conclusive evidence regarding the effect of age, in combination with type of identification and type of crime, on juror decision making.

Conversely, this lack of effect of age of witness could be due to the particular sample utilized in this study. Responses to the Child Belief Questionnaire indicated that participants took a very “middle of the road” approach in their opinions of child witnesses, that is, they held neither positive nor negative views. It may be possible that these views are being reflected in the lack of age effects found for verdict, verdict confidence, and reliability of crime details.

Witness and defendant reliability. While there was no effect of age for verdict decisions, there was a significant effect of age in mock juror ratings of honesty, truthfulness, and understanding of the crime. In line with previous studies (Ross et al.

1990), mock jurors gave the child witness significantly higher ratings of both honesty and truthfulness than the adult witness. The child witness may be viewed as more honest and more truthful due to an assumed lack of understanding of the circumstances surrounding the trial. With this lack of understanding, it may follow that a child witness may have less of a vested interest in the situation, and thus have no reason to be dishonest or untruthful when questioned. Indeed, mock jurors also rated the adult witness as having more understanding of the crime that took place in the park (i.e., the drug deal or physical assault) than the child witness. Thus, it would appear that mock jurors were sensitive to these variables as far as age of witness was concerned. These results somewhat support the contribution of stereotypes of a child witness (i.e. honesty, truthfulness, lack of understanding) to juror decision making, despite the lack of age effects with the other dependent variables. Perhaps, once the Child Beliefs Questionnaire is refined or replaced with a better measure, the contribution of these stereotypes can be more accurately measured.

Type of Crime

Verdict. Past research had suggested that the type of crime witnessed may influence mock jurors' verdict decisions, especially if the crime was witnessed and testified to by a child. It has been suggested that if a child is perceived by mock jurors as lacking the understanding of a particular crime, they are more likely to believe the child is telling the truth (e.g. recall the two-factor model of witness credibility, Goodman, et al. 1984). The present study found that type of crime had no significant effect on mock jurors' continuous or dichotomous verdict decisions, verdict confidence, or reliability of

crime details. The hypothesized interaction between type of crime and age of witness on mock juror verdicts was also unsupported by these results. As this area is relatively under investigated in juror decision-making research, there are few studies to aid in the explanation of these results. It should be mentioned that witness role in the present study was that of a bystander, not a victim. This may have contributed to the lack of significant verdict decisions, as few studies have investigated type of crime with the witness as a bystander. Perhaps the child witness' direct role as a victim (e.g. in a sexual assault case) heightens the child's credibility and/or trustworthiness to the point of influencing verdict decisions.

The type of crimes chosen in the manipulations, a drug deal versus a physical assault may have also inadvertently confounded this variable. As evidenced by mock jurors' verdict reasons (discussed below), the inclusion of a drug deal between the victim and suspect may have introduced a negative stigma affecting juror perceptions of both parties. It is difficult to determine the extent to which the drug stigma affected verdict decisions, but as some jurors explicitly mentioned it as a reason, it may have had an influence.

Witness and defendant reliability. Despite the lack of effect of type of crime for verdict decisions and crime details, two of the witness reliability items reached significance. As anticipated by past research, there was a significant age by type of crime interaction found for both ratings of the truthfulness of witness testimony and witness understanding of the event in the park as a crime. Mock jurors' ratings suggest that the adult witness had a greater understanding of the event as a crime than the child witness,

but only when the crime was non-physical (i.e., a drug deal). When the crime was physical (i.e., an assault), there was no significant difference between mock juror ratings for the child witness and adult witness. Thus, it was the mock jurors' assumption that a child witness would have less understanding of the criminal implications of a drug deal than an adult witness. Given the experiences of an average 10 year old child, this is likely a safe assumption. The second interaction, though expected to be significant, was in the opposite direction past research would suggest. Mock jurors gave higher ratings of truthfulness to the child, but only when the crime was physical. When the crime was non physical, ratings of truthfulness for the adult and child witness did not significantly differ, though the adult's ratings were slightly higher. According to previous research, the lack of understanding of the crime (e.g., a child's lack of understanding of a drug deal) would lead to the child witness being rated as more honest than the adult witness (Ross, et al. 1990). In the present study, this is reversed, that is, mock jurors gave greater truthfulness ratings to the child in the physical crime condition (i.e., an assault) than the adult witness. This is especially puzzling considering that mock jurors indicated in the other interaction that children were more likely to understand that the physical assault was a crime. Perhaps mock jurors are assuming that a higher level of understanding is associated with a greater ability to truthfully articulate events, or conversely, a lack of understanding creates a greater opportunity for misinterpretation or fabrication of events, especially among children. Further research is necessary to properly interpret these findings.

Verdict Reasons

The exploratory analysis included in the present study that investigated how mock jurors' personal beliefs might affect the verdicts rendered revealed several interesting findings. The open ended question was included to tap the reasoning behind verdict decisions, specifically to determine the evidence they found most salient and convincing, and thus contributing to their final verdicts.

Not guilty verdicts. The reasons cited by mock jurors for their not guilty verdicts revolved mainly around the lack of evidence presented against the defendant. More than half the participants cited this as a reason not to convict. Secondly, they believed that since no one witnessed the actual murder, there was a chance that someone other than the defendant could have committed the crime. The third most common response for acquittal was that there was "reasonable doubt". Many also cited a lack of physical evidence, such as DNA information from the blood spatter, or even fingerprints or footprints from the crime scene, as surprisingly lacking in the trial and owing to their finding the defendant not guilty. As mentioned earlier, these details were purposely omitted, as it was likely physical evidence would overshadow the eyewitness manipulations.

Other reasons cited by mock jurors were that it did not make sense for the defendant to murder in retaliation for a debt owing (as the money would not be paid back if the man was dead!) Also, several mentioned that a dispute in the park does not necessarily prove the defendant committed murder. A few mock jurors also mentioned that eyewitness testimony was often unreliable. Curiously, some mock jurors mentioned

things that were not in favour of an acquittal, such as the defendant having a motive and a lack of alibi, but this was usually followed by "but there is not enough evidence for a murder conviction". It would appear that mock jurors are incorporating their own experiences (i.e., perhaps personal disputes, knowledge of witness abilities, etc) and contradictory evidence while considering the verdict options they have to choose from, which strongly conforms to the processes described in the Story Model of jury decision-making (Pennington & Hastie, 1981, 1986).

It would appear that mock jurors were also influenced by some of the variables manipulated in the current study, such as type of identification, age of witness, and type of crime. Specifically, the fourth most popular reason for acquittal was that the witness failed to identify the defendant in a lineup. Similarly, a small number of participants mentioned that child witnesses were unreliable, which upon closer inspection of the data, was in the conditions where positive identifications by the child witness were made. This perhaps suggests some confirmation bias (i.e., a bias that involves an "unwitting molding of facts" to fit one's beliefs; Nickerson, 1998). The type of crime, specifically the drug deal, was mentioned by several mock jurors as reasons for the defendant's acquittal. In this case, they insinuated that since the victim was purchasing drugs, he was likely to be "in with the wrong crowd" and could have been killed by others for reasons other than debt. This is where the negative stigma of the drug deal appears to have attached itself to the victim, and worked in the defendant's favour. Perhaps future studies should use a different type of crime or modify the scenario to avoid these implications.

Guilty verdicts. The reasons cited by mock jurors for the conviction of the defendant presented a very different interpretation of the trial transcript. The majority of mock jurors cited a lack of evidence proving the defendant's *innocence* as their main reason for conviction. This was most surprising, as it suggests their verdicts were largely informed by a "guilty until proven *innocent*" evaluation of the evidence. Although the judge's instructions to the jury at the beginning of the trial transcript included the standard of proof (i.e., the defendant must be found guilty beyond a reasonable doubt), the "innocent until proven guilty" clause was not included anywhere in the transcript. Perhaps if this clause had been explicitly mentioned in the transcript, fewer mock jurors might have cited this reason to justify their rendered guilty verdicts. The judge's instructions (nor the defense's arguments) failed to inform the jury of the dangers of convicting an innocent individual, and perhaps if this had been included the mock jurors' belief in the "presumption of guilt" may have been reduced.

Mock jurors also cited the strength of the motive the defendant had for committing the crime, as well as the impression of untruthfulness his testimony presented. Mock jurors did cite reasons related to the manipulation conditions in the study as reasons to convict. The third most popular reason for conviction was the positive identification decision made by the witness, apparently regardless of the age of the witness. Also, type of crime, specifically the drug deal, was also cited as a reason for conviction, but this time working against the defendant. As one juror put it, "He (defendant) had a disregard for the law because of the drug dealing, so who is to say he wouldn't have killed that man too." No such statements were made regarding the other

type of crime, that is, the physical assault. Preconceived notions of drug dealers and drug users may be influencing the mock jurors' verdict decisions, which further add support to the processes described in the Story Model of juror decision-making (Pennington & Hastie, 1981, 1986).

Limitations and Future Directions

There are several limitations that need to be addressed in the present study. Firstly, a concern for many juror decision making studies is the use of individual juror decisions and the lack of jury deliberations. Researchers (Golding, Bradshaw, Dunlap, & Holding, 2007) have suggested that it is very difficult to determine how the individual mock juror decisions may translate into group verdicts. Group verdicts, specifically in second degree murder trials, require unanimous agreement among jurors. For this reason, the results of the present study must be considered preliminary. However, the results of the present study could be used as a pilot for a future deliberation study on how similar murder cases are adjudicated.

A second major limitation of the present study concerns the nature of the sample (i.e. predominantly female and psychology undergraduates). Researchers have claimed that utilizing convenience samples of undergraduates, despite being the choice population for most psychological research, might be problematic given that results may not always generalize to the greater population as a whole (Diamond, 1997). As actual juries are rarely, if ever, completely composed of undergraduate students, this issue may be especially relevant to juror studies. Bornstein (1999) has suggested that a few studies (e.g. 5 out of 26 studies) that have investigated differences between student versus non-

student samples have found that mock jurors in student samples are more likely to find for the criminal defendant, possibly due to the population's more liberal attitudes or higher education. Although Bornstein (1999) raises these concerns, he suggests that the significant differences are small enough to allow for the continued use of student populations as jurors, which offers some justification for the current study. Despite this, it is important to note the differences, and perhaps investigate these variables with a non-student, community based sample.

As mentioned previously, another limitation of the current study involves the trial medium, that is, the use of written trial transcripts rather than videotaped or audiotaped trial transcripts. The use of videotaped or audiotaped trials may increase the ecological validity of the results, but also may introduce a host of confounds, resulting in the loss of experimental control. Previous studies have shown that the emotions expressed in such recordings, especially if the victim testifies and shows emotion, have influenced mock juror verdicts (Nadler & Rose, 2003). The use of a written transcript thus controls for the confounding effects of emotions and other possible factors.

The trial transcript used in the current study also presents some limitations. As mentioned previously, the transcript was purposely created to reflect a certain ambiguity regarding the evidence presented in the trial to avoid favoring either verdict decision (guilty vs. not guilty.) Ambiguity in the general trial scenario was also intended to allow the factors under investigation to be the focus of mock juror attention, rather than have these factors confounded by other variables (e.g., the presence of stronger corroborating evidence like DNA or fingerprints). It is possible that these precautions actually created a

transcript that was inadvertently too ambiguous. Indeed, several mock jurors noted this in their open-ended responses, and a few verbally expressed this to the experimenter after debriefing. The result of this ambiguity in the transcript likely led many participants to “default” to a not guilty verdict simply because they were not swayed by the eyewitness evidence presented. Perhaps future research should investigate this phenomenon with transcripts of differing strengths, as a possible balance could be found.

Lastly, given the interesting information obtained through the open-ended question regarding verdict decisions, perhaps this could be incorporated more into future studies to help examine the reasoning of mock jurors and possibly add support to the Story Model of juror decision-making (Pennington & Hastie, 1981, 1986). The Child Beliefs questionnaire, which intended to get a baseline impression of mock jurors’ opinions of child witnesses, was largely a failure, but perhaps a similar, more refined measure could be incorporated into future studies. Such a measure could provide valuable insight as to what type of knowledge base or belief system the mock jurors are incorporating and utilizing in their decision making processes.

Conclusions and Implications

The present study has contributed to the understanding of how potential jurors may respond to different witness identification decisions, child and adult witnesses, and the less researched, type of crime witnessed. The significant findings highlight the importance mock jurors place on positive identification decisions when rendering verdicts in criminal trials, and how the implications of a foil identification or non identification are often misinterpreted. Also, that jurors were unable to separate recall

and recognition testimony (as evidenced by differences found in crime details and reliability), was an interesting, though contrary, finding. Curiously, the type of crime witnessed or the age of the witness were not factors that influenced mock juror verdict decisions. Lastly, the interaction between age of witness (i.e. child witnesses) and type of crime may add some support to this emerging area of juror decision making research.

The findings of the present study lead to some important practical implications. Firstly, the findings relating to identification decision further demonstrate the power that positive eyewitness identification has on juror decision making. Given that eyewitness evidence is said to be the largest single cause of wrongful conviction in criminal trials (Rattner, 1988; Wells et al., 1998), it is imperative that juries are informed, either by judicial instruction or expert witnesses, of what a positive identification decision can mean (i.e. it could have been made in error) and that a non identification decision on the part of a witness may or may *not* have been made in error. This study has highlighted this lack of knowledge in potential jurors. Further, in contrast to a large body of research, the mock jurors in this study did not discriminate between child and adult witnesses. If these results are any indication of the wider community's opinion on child witnesses, perhaps more credit should be given to children, at least child witnesses (10 years of age or older) as it would appear their performance is perceived as being comparable to that of adults.

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Appendix A
Transcript #1

Judge: Mr. Smith has been charged with section 231(7) of the *Criminal Code*, second degree murder. The Crown has the burden of proving that charge beyond a reasonable doubt. It is your responsibility to listen to all the evidence, to decide the facts, and then to apply the law that I will give you at the end of the trial. The case will begin with opening statements from both the Crown and Defence lawyers. These statements are not evidence, but summaries of what will be presented in the trial. Following these statements, the Crown and Defence will present and question a number of witnesses, who will subsequently be cross-examined. Please listen to the following arguments carefully. Following the testimonies, you will be asked to make a decision as to whether you find the defendant, Mr. Smith, guilty or not guilty of the charge.

The Crown makes their opening statement.

Crown: Mr. Robert Smith is on trial today for the murder of Mr. Bill Hobbes. Mr. Hobbes was found dead in his apartment on the evening of June 23rd, 2007, face-down in a pool of his own blood. The superintendent of the apartment building, responding to noise complaints from neighbors of Mr. Hobbes, was the first to discover the body and immediately called the police. The cause of his death was the combination of a severe beating and six stab wounds to the neck and chest. One witness has placed Mr. Smith with the victim on the afternoon of the murder. The victim and Mr. Smith were more than known to each other – Mr. Smith had given \$20 000 to the victim and they had been friends for 3 years. Mr. Smith admits that he and the victim had recently been having disagreements about the money. Mr. Smith believed the money was a loan and wanted it returned. However, Mr. Hobbes had claimed the money was a gift, and thus, would not pay it back. Evidence presented today will paint a picture of how their final argument about this matter escalated into murder. It is therefore, your duty, as representatives of our community, to seek justice by finding Mr. Smith guilty of second degree murder.

The Defence makes their opening statement.

Defence: Mr. Smith did not kill Mr. Hobbes. It is true that Mr. Smith had lent Mr. Hobbes \$20 000 and that this had put a strain on their otherwise long and friendly relationship. As you will hear from Mr. Smith himself, the events on the evening of June 23rd 2007 were committed in his absence. He was not at the apartment that day, nor was he present at the time of the crime. I trust that you will consider all the information accordingly and find that my client is indeed innocent of the charge against him.

The Crown calls their first witness, Steve Jacobs.

Crown: Could you please state your name and age for the court?

Witness: My name is Steve Jacobs, and I'm 55 years old.

Crown: Could you please describe to us your duties as Superintendent of Lakeview Estates, where Mr. Hobbes rented an apartment?

Witness: Well, I take care of minor repairs within the building. I'm on-call if anyone needs something fixed in an emergency. I'm usually the guy they call when there are complaints about other tenants in the building, especially after hours.

Crown: Were you on-call on the evening of June 23rd, 2007?

Witness: Yes, I was. I got a bunch of calls from people on the 2nd floor, complaining about noise.

Crown: What kind of noise were they complaining about?

Witness: Oh, there was shouting, some loud crashes like things falling to the ground. My apartment is directly below Hobbes' place, and I heard it myself. The neighbours on his floor asked me to check it out. It's usually a quiet building and we don't have a lot of problems.

Crown: So you heard these noises yourself?

Witness: Yes, definitely.

Crown: What did you do after you got the calls?

Witness: Well, I had to take a piss first, but after that I put on my shoes and locked up my apartment before I went upstairs. I almost didn't go up, since the noise had stopped when I got out of the bathroom. I still went up to Hobbes' place, and that's when I found the body.

Crown: How much time had passed since you last heard any noise?

Witness: Oh, the noise started at about 6:50 pm. It stopped by 7. It was about 7:05 when I went up there.

Crown: Please describe what you found when you went to Mr. Hobbes' apartment.

Witness: Well, the door wasn't completely shut, it was hanging open a bit. I knocked and asked if anyone was home, but no one answered. I pushed the door open and shut it behind me. You kind of walk right into the living room in these apartment units. The place, the living room, I mean, was a mess. A bookshelf was knocked over and books and broken glass was on the floor. Then I saw the blood, smeared around on the floor and on some of the walls. I saw Hobbes was lying down on his front, on the floor. His clothes were covered in blood, and there was a ton of blood on the floor... It was something I'd never seen before.

Crown: What did you do next?

Witness: Well, I knew Hobbes, I mean, I'd seen him around the apartment building. I knew who he was, and we'd chat once in a while, but we weren't close friends. I was yelling at him, asking him if he could hear me, but he didn't answer. He didn't move. I could see that his eyes were open, but they weren't, you know, moving. He looked dead. I got out my cell phone and called 911. The cops got there in about 5 minutes.

Crown: Thank you. That will be all.

The Defence cross-examines the witness.

Defence: Hello. Could you please tell the court what you were doing when you heard the shouting that evening?

Witness: Well, I was sitting in my living room, watching TV. I had just finished my supper.

Defence: You could hear the shouting over the sound from the television?

Witness: Yeah, I didn't have it too loud, and I was just watching Jeopardy.

Defence: The game show?

Witness: Yes, the game show, sorry. It's not very noisy.

Defence: Thank you for clarifying that. Could you describe what you heard?

Witness: Well, it sounded angry. I couldn't understand all of it, but I heard some swearing.

Defence: How many people did it sound like?

Witness: Oh, just two. I could tell the two voices apart. I thought it was weird, since Hobbes is usually a quiet guy and I don't hear anything from him up there. He lives by himself.

Defence: Could you tell what Mr. Hobbes was saying?

Witness: No, I couldn't tell which one was Hobbes at all. I'd never heard him yell, but it was definitely two guys yelling.

Defence: Have you ever heard noise from Mr. Hobbes' apartment before that occasion?

Witness: No, he was always quiet, especially for a younger guy. I'd never heard him raise his voice either.

Defence: Thank you. When you went upstairs, did you take the stairs or the elevator?

Witness: I took the elevator. My legs aren't as good as they once were.

Defence: Did you see anyone leave the apartment while you were waiting for the elevator?

Witness: No, no one.

Defence: Ok. You mentioned earlier that Hobbes' apartment was a mess. Please explain that to the court.

Witness: Well, it wasn't messy like it was dirty or not taken care of, there was just the bookshelf knocked over. Things that were probably on the bookshelf were on the floor around it. It would have explained the crashes I heard. And then there was blood. The blood was the mess. Not just around Hobbes on the floor, but smeared on things and tracked around the living room of the apartment.

Defence: Had you ever had any trouble with Mr. Hobbes as a tenant?

Witness: No, never. I fixed his toilet once, but that's all I ever had to do for his apartment.

Defence: Thank you. That is all.

The Crown calls their second witness, Colin Davidson.

Crown: Could you please state your name and age for the court?

Witness: My name is Colin Davidson and I am 10/25 years old.

Crown: Could you please tell us what you saw on the afternoon of Saturday June 23rd, 2007?

Witness: I was in Jackson Park, having a picnic with my brother and mother. It was around supper-time.

Crown: What time do you think it was?

Witness: Probably about 5 o'clock.

Crown: Thank you, please continue.

Witness: I saw a man sitting by himself at a picnic table that was close to us. A second man walked up to him and they spoke for a little while.

Crown: Then what happened?

Witness: The second man... hit the first man a few times and then the first man was bleeding from the nose.

Crown: Then what happened?

Witness: The two of them stopped fighting and they walked out of the park together.

Crown: Were you asked to look at some photos, or something called a lineup?

Witness: Yes, the police came to my house to show me some photos to see if I recognized the man from the park.

Crown: What happened when you looked at the pictures?

Witness: I picked out number 4 from the lineup. / I did not pick out anyone from the lineup / I picked out number 4 from the lineup.

Crown: After you made your decision, did the police tell you that number 4 was the suspect? / that you had not picked out the suspect? / that number 4 was actually the son of a police officer who was known to be innocent?

Witness: Yes.

Crown: Describe what you saw the suspect do that afternoon.

Witness: He walked up to the man and they spoke for a few minutes –

Crown: [interrupting] Could you please use the terms “victim” and “suspect” for clarity?

Witness: OK.

Crown: Thank you. Please continue.

Witness: The suspect walked up to the victim and they talked for a few minutes. I couldn't hear what they said, but the suspect looked angry.

Defence: Objection.

Judge: Sustained. Please just state what you saw.

Witness: There was some yelling from the suspect... but I don't know what he said...

Crown: Then what happened?

Witness: Then he...he then hit the man in the face a few times while the man put his hands up to try to... like... [witness makes blocking gesture with hands in front of his face]... block his punches.

Crown: Then what?

Witness: The suspect stopped when he saw the blood on the guy's... the victim's face. They talked again and then they both went out of the park together.

Crown: What did the suspect look like?

Witness: He was white and tall... big body, with light brown hair and dark eyes.

Crown: Can you tell us more about his face?

Witness: Well... he had a crooked nose; it looked like it had been broken. No beard or hair on his face. His hair was very short.

Crown: What was he wearing?

Witness: He was wearing a black t-shirt and blue jeans. He had on white running shoes.

Crown: How old did he look?

Witness: He looked about... 30 years old.

Crown: How close do you think you were to the two men?

Witness: Well, from about here to that guy there [*witness points to a court clerk*].

Crown: Let it be known that the witness is pointing to a court clerk, and there is about a 20 ft distance between them. Colin, how well could you see them from this distance?

Witness: I could see him very clearly.

Crown: Thank you. No further questions.

The Defence cross-examines the witness.

Defence: Hello.

Witness: Hello.

Defence: I'd like to ask you some more questions about what you saw that afternoon in the park. You said you were about 20 ft away from the two men, correct?

Witness: Yah, about 20 ft.

Defence: And you said the suspect had dark eyes.

Witness: Yes, I did.

Defence: Look at this man here... [*He points to the same court clerk*]... Can you tell me what colour his eyes are?

Crown: Objection

Judge: I will allow this. Please answer his question.

Witness: His eyes are light, maybe blue? His eyes are not dark.

Defence: Thank you. For the record, his eyes are indeed blue. You mentioned you were there with your family – is it possible that your family distracted you from the event in question?

Witness: No. They were not distracting me. I know what I saw.

Defence: Thank you. No further questions.

The Defence calls their first witness, the defendant, Robert Smith.

Defence: Good morning, please state your name and age for the court.

Witness: My name is Robert Smith, and I'm 27.

Defence: Please explain to the court the nature of your relationship with Mr. Hobbes.

Witness: I knew him for about 3 years. We met in college. We were friends. We'd hang out occasionally, play some ball, go to bars, that kinda thing.

Defence: Could you tell us about the status of your relationship with Mr. Hobbes in the months before he was killed?

Witness: Things were friendly, but not as good as they had been when we met.

Defence: Why is that?

Witness: Well, he had fallen on some hard times last year. He didn't go into detail, but he had mentioned that he lost a bunch of money playing the stock market. He wasn't living in poverty, but he was in debt.

Defence: I see. How did this affect your relationship?

Witness: Well, he owed me money. I let him borrow about \$20 000 from me several months ago, and he promised to pay me back, with interest, when he got back on his feet.

He came into some money recently. He was certainly not poor anymore... and said he would pay me back...but then he changed his story last month. He would not pay me back.

Defence: What was his reason for not giving your money back?

Witness: He said that we had agreed it was a gift... between friends. He said he was insulted that I'd ask for it back. He even expected me to pay for *other stuff* too, like beer when we went out drinking. We argued about money a lot in the past month.

Defence: I see. On the afternoon of June 23rd, 2007, did you see Mr. Hobbes in Jackson Park?

Witness: No. I did not see him at all that day. I was home alone with a headache. I went out that night though, I had to meet someone at 6:30 pm.

Defence: Thank you. No further questions.

The Crown cross-examines the defendant.

Crown: Where were you on the afternoon of June 23rd, 2007?

Witness: I was home alone, with a headache.

Crown: Is there anyone who can confirm this?

Witness: No, I didn't talk to anyone that afternoon. I felt ill and stayed home alone.

Crown: When was the last time you saw Mr. Hobbes?

Witness: Umm... [*Hesitating*] About a week ago. We met at his place. I wanted to talk about the money he owed me.

Crown: How did you both feel at this time?

Witness: Well, I was mad about it. He kept saying he didn't owe me anything and wouldn't pay me back. I was trying to be patient, but I wasn't getting anywhere with him. I just left because I was mad. And I haven't talked to him since.

Crown: I see. You said you met someone at 6:30 pm on the night of the murder. Who were you meeting with?

Witness: Well, I went out to a bar... and met a woman there. I was with her til 9pm that night. She couldn't be here today. I couldn't track her down.

Crown: That is unfortunate. Can anyone else confirm that you were with them at 7 pm?

Witness: Nope. No.

Crown: Thank you. No further questions.

The Judge provides the law and instructions for the jury.

Judge: Members of the jury, you have heard the testimony from the defendant, and two other witnesses. It is now my responsibility to provide you with the law. Mr. Smith has been charged with the following:

231(7). SECOND DEGREE MURDER: Second degree murder encompasses all murder that is not considered first degree murder. First degree murder includes acts that are planned and deliberate. However, if the victim is a law enforcement officer or a correctional staff member, or if the murder occurred during the commission of another violent offence (e.g. kidnapping, sexual assault), regardless of whether the murder was

unplanned or deliberate, it could be considered first-degree murder. The defendant is charged with second degree murder.

Please take into consideration all the information you have heard today, and do not let any biases you may have come into your decision making process.

Please proceed to the next section and answer questions based on what you have read.

Transcript #2

Judge: Mr. Smith has been charged with section 231(7) of the *Criminal Code*, second degree murder. The Crown has the burden of proving that charge beyond a reasonable doubt. It is your responsibility to listen to all the evidence, to decide the facts, and then to apply the law that I will give you at the end of the trial. The case will begin with opening statements from both the Crown and Defence attorneys. These statements are not evidence, but summaries of what will be presented in the trial. Following these statements, the Crown and Defence will present and question a number of witnesses, who will subsequently be cross-examined. Please listen to the following arguments carefully. Following the testimonies, you will be asked to make a decision as to whether you find the defendant, Mr. Smith, guilty or not guilty of the charge.

The Crown makes their opening statement.

Crown: Mr. Robert Smith is on trial today for the murder of Mr. Bill Hobbes. Mr. Hobbes was found dead in his apartment on the evening of June 23rd, 2007, face-down in a pool of his own blood. The superintendent of the apartment building, responding to noise complaints from neighbors of Mr. Hobbes, was the first to discover the body and immediately called the police. The cause of his death was the combination of a severe beating and six stab wounds to the neck and chest. One witness has placed Mr. Smith with the victim on the afternoon of the murder. The victim and Mr. Smith were more than known to each other – Mr. Smith had given \$20 000 to the victim and they had been friends for 3 years. Mr. Smith admits that he and the victim had recently been having disagreements about the money. Mr. Smith believed the money was a loan and wanted it returned. However, Mr. Hobbes had claimed the money was a gift, and thus, would not pay it back. Evidence presented today will paint a picture of how their final argument about this matter escalated into murder. It is therefore, your duty, as representatives of our community, to seek justice by finding Mr. Smith guilty of second degree murder.

The Defence makes their opening statement.

Defence: Mr. Smith did not kill Mr. Hobbes. It is true that Mr. Smith had lent Mr. Hobbes \$20 000 and that this had put a strain on their otherwise long and friendly relationship. As you will hear from Mr. Smith himself, the events on the evening of June

23rd 2007 were committed in his absence. He was not at the apartment that day, nor was he present at the time of the crime. I trust that you will consider all the information accordingly and find that my client is indeed innocent of the charge against him.

The Crown calls their first witness, Steve Jacobs.

Crown: Could you please state your name and age for the court?

Witness: My name is Steve Jacobs, and I'm 55 years old.

Crown: Could you please describe to us your duties as Superintendent of Lakeview Estates, where Mr. Hobbes rented an apartment?

Witness: Well, I take care of minor repairs within the building. I'm on-call if anyone needs something fixed in an emergency. I'm usually the guy they call when there are complaints about other tenants in the building, especially after hours.

Crown: Were you on-call on the evening of June 23rd, 2007?

Witness: Yes, I was. I got a bunch of calls from people on the 2nd floor, complaining about noise.

Crown: What kind of noise were they complaining about?

Witness: Oh, there was shouting, some loud crashes like things falling to the ground. My apartment is directly below Hobbes' place, and I heard it myself. The neighbours on his floor asked me to check it out. It's usually a quiet building and we don't have a lot of problems.

Crown: So you heard these noises yourself?

Witness: Yes, definitely.

Crown: What did you do after you got the calls?

Witness: Well, I had to take a piss first, but after that I put on my shoes and locked up my apartment before I went upstairs. I almost didn't go up, since the noise had stopped when I got out of the bathroom. I still went up to Hobbes' place, and that's when I found the body.

Crown: How much time had passed since you had last heard any noise?

Witness: Oh, the noise started at about 6:50 pm. It stopped by 7. It was about 7:05 when I went up there.

Crown: Please describe what you found when you went to Mr. Hobbes' apartment.

Witness: Well, the door wasn't completely shut, it was hanging open a bit. I knocked and asked if anyone was home, but no one answered. I pushed the door open and shut it behind me. You kind of walk right into the living room in these apartment units. The place, the living room, I mean, was a mess. A bookshelf was knocked over and books and broken glass was on the floor. Then I saw the blood, smeared around on the floor and on some of the walls. I saw Hobbes was lying down on his front, on the floor. His clothes were covered in blood, and there was a ton of blood on the floor... It was something I'd never seen before.

Crown: What did you do next?

Witness: Well, I knew Hobbes, I mean, I'd seen him around the apartment building. I knew who he was, and we'd chat once in a while, but we weren't close friends. I was yelling at him, asking him if he could hear me, but he didn't answer. He didn't move. I

could see that his eyes were open, but they weren't, you know, moving. He looked dead. I got out my cell phone and called 911. The cops got there in about 5 minutes.

Crown: Thank you. That will be all.

The Defence cross-examines the witness.

Defence: Hello. Could you please tell the court what you were doing when you heard the shouting that evening?

Witness: Well, I was sitting in my living room, watching TV. I had just finished my supper.

Defence: You could hear the shouting over the sound from the television?

Witness: Yeah, I didn't have it too loud, and I was just watching Jeopardy.

Defence: The game show?

Witness: Yes, the game show, sorry. It's not very noisy.

Defence: Thank you for clarifying that. Could you describe what you heard?

Witness: Well, it sounded angry. I couldn't understand all of it, but I heard some swearing.

Defence: How many people did it sound like?

Witness: Oh, just two. I could tell the two voices apart. I thought it was weird, since Hobbes is usually a quiet guy and I don't hear anything from him up there. He lives by himself.

Defence: Could you tell what Mr. Hobbes was saying?

Witness: No, I couldn't tell which one was Hobbes at all. I'd never heard him yell, but it was definitely two guys yelling.

Defence: Have you ever heard noise from Mr. Hobbes' apartment before that occasion?

Witness: No, he was always quiet, especially for a younger guy. I'd never heard him raise his voice either.

Defence: Thank you. When you went upstairs, did you take the stairs or the elevator?

Witness: I took the elevator. My legs aren't as good as they once were.

Defence: Did you see anyone leave the apartment while you were waiting for the elevator?

Witness: No, no one.

Defence: Ok. You mentioned earlier that Hobbes' apartment was a mess. Please explain that to the court.

Witness: Well, it wasn't messy like it was dirty or not taken care of, there was just the bookshelf knocked over. Things that were probably on the bookshelf were on the floor around it. It would have explained the crashes I heard. And then there was blood. The blood was the mess. Not just around Hobbes on the floor, but smeared on things and tracked around the living room of the apartment.

Defence: Had you ever had any trouble with Mr. Hobbes as a tenant?

Witness: No, never. I fixed his toilet once, but that's all I ever had to do for his apartment.

Defence: Thank you. That is all.

The Crown calls their second witness, Colin Davidson.

Crown: Could you please state your name and age for the court?

Witness: My name is Colin Davidson and I am 10/25 years old.

Crown: Could you please tell us what you saw on the afternoon of Saturday June 23rd, 2007?

Witness: I was in Jackson Park, having a picnic with my brother and mother. It was around supper-time.

Crown: What time do you think it was?

Witness: Probably about 5 o'clock.

Crown: Thank you, please continue.

Witness: I saw a man sitting by himself at a picnic table that was close to us. A second man walked up to him and they spoke for a little while.

Crown: Then what happened?

Witness: The second man took a small bag of white powder out of his pocket and handed it to the first man.

Crown: Then what happened?

Witness: Then the first man gave the second man some money and they walked out of the park together.

Crown: Were you asked to look at some photos, or something called a lineup?

Witness: Yes, the police came to my house to show me some photos to see if I recognized the man from the park

Crown: What happened when you looked at the pictures?

Witness: I picked out number 4 from the lineup. / I did not pick out anyone from the lineup / I picked out number 4 from the lineup.

Crown: After you made your decision, did the police tell you that number 4 was the suspect? / that you had not picked out the suspect? / that number 4 was actually the son of a police officer who was known to be innocent?

Witness: Yes.

Crown: Describe what you saw the suspect do that afternoon.

Witness: He walked up to the man and they spoke for a few minutes –

Crown: [interrupting] Could you please use the terms “victim” and “suspect” for clarity?

Witness: OK.

Crown: Thank you. Please continue.

Witness: The suspect walked up to the victim and they talked for a few minutes. I couldn't hear what they said, but the suspect looked angry.

Defence: Objection.

Judge: Sustained. Please just state what you saw.

Witness: The suspect and victim talked for a bit, then the suspect gave the victim a bag of white powder.

Crown: The jury should note that this was a bag of cocaine, later found in the victim's apartment. Then what happened?

Witness: Then he...the victim nodded and gave the suspect some money... brown bills. And the suspect took them and it looked like he was counting it.

Crown: Then what?

Witness: The suspect stopped and his face was angry. He pointed to the money and then he shook his head.... Like this... [*The witness shakes his head from side to side, as if gesturing "no"*]

Crown: What do you think he meant?

Witness: It was like he was saying "No". Like something was wrong with it.

Crown: Thank you for clarifying. Then what happened?

Witness: They talked again and then they both went out of the park together.

Crown: What did the suspect look like?

Witness: He was white and tall... big body, with light brown hair and dark eyes.

Crown: Can you tell us more about his face?

Witness: Well... he had a crooked nose; it looked like it had been broken. No beard or hair on his face. His hair was very short.

Crown: What was he wearing?

Witness: He was wearing a black t-shirt and blue jeans. He had on white running shoes.

Crown: How old did he look?

Witness: He looked about... 30 years old.

Crown: How close do you think you were to the two men?

Witness: Well, from about here to that guy there [*witness points to a court clerk*].

Crown: Let it be known that the witness is pointing to a court clerk, and there is about a 20 ft distance between them. Colin, how well could you see them from this distance?

Witness: I could see him very clearly.

Crown: Thank you. No further questions.

The Defence cross-examines the witness.

Defence: Hello.

Witness: Hello.

Defence: I'd like to ask you some more questions about what you saw that afternoon in the park. You said you were about 20 ft away from the two men, correct?

Witness: Yah, about 20 ft.

Defence: And you said the suspect had dark eyes.

Witness: Yes, I did.

Defence: Look at this man here... [*He points to the same court clerk*]... Can you tell me what colour his eyes are?

Crown: Objection

Judge: I will allow this. Please answer his question.

Witness: His eyes are light, maybe blue? His eyes are not dark.

Defence: Thank you. For the record, his eyes are indeed blue. You mentioned you were there with your family – is it possible that your family distracted you from the event in question?

Witness: No. They were not distracting me. I know what I saw.

Defence: Thank you. No further questions.

The Defence calls their first witness, the defendant, Robert Smith.

Defence: Good morning, please state your name and age for the court.

Witness: My name is Robert Smith, and I'm 27.

Defence: Please explain to the court the nature of your relationship with Mr. Hobbes.

Witness: I knew him for about 3 years. We met in college. We were friends. We'd hang out occasionally, play some ball, go to bars, that kinda thing.

Defence: Could you tell us about the status of your relationship with Mr. Hobbes in the months before he was killed?

Witness: Things were friendly, but not as good as they had been when we met.

Defence: Why is that?

Witness: Well, he had fallen on some hard times last year. He didn't go into detail, but he had mentioned that he lost a bunch of money playing the stock market. He wasn't living in poverty, but he was in debt.

Defence: I see. How did this affect your relationship?

Witness: Well, he owed me money. I let him borrow about \$20 000 from me several months ago, and he promised to pay me back, with interest, when he got back on his feet. He came into some money recently. He was certainly not poor anymore... and said he would pay me back...but then he changed his story last month. He would not pay me back.

Defence: What was his reason for not giving your money back?

Witness: He said that we had agreed it was a gift... between friends. He said he was insulted that I'd ask for it back. He even expected me to pay for *other stuff* too, like beer when we went out drinking. We argued about money a lot in the past month.

Defence: I see. On the afternoon of June 23rd, 2007, did you see Mr. Hobbes in Jackson Park?

Witness: No. I did not see him at all that day. I was home alone with a headache. I went out that night though, I had to meet someone at 6:30 pm.

Defence: Thank you. No further questions.

The Crown cross-examines the defendant.

Crown: Where were you on the afternoon of June 23rd, 2007?

Witness: I was home alone, with a headache.

Crown: Is there anyone who can confirm this?

Witness: No, I didn't talk to anyone that afternoon. I felt ill and stayed home alone.

Crown: When was the last time you saw Mr. Hobbes?

Witness: Umm... [*Hesitating*] About a week ago. We met at his place. I wanted to talk about the money he owed me.

Crown: How did you both feel at this time?

Witness: Well, I was mad about it. He kept saying he didn't owe me anything and wouldn't pay me back. I was trying to be patient, but I wasn't getting anywhere with him. I just left because I was mad. And I haven't talked to him since.

Crown: I see. You said you met someone at 6:30 pm on the night of the murder. Who were you meeting with?

Witness: Well, I went out to a bar... and met a woman there. I was with her til 9pm that night. She couldn't be here today. I couldn't track her down.

Crown: That is unfortunate. Can anyone else confirm that you were with them at 7 pm?

Witness: Nope. No.

Crown: Thank you. No further questions.

The Judge provides the law and instructions for the jury.

Judge: Members of the jury, you have heard the testimony from the defendant, and two other witnesses. It is now my responsibility to provide you with the law. Mr. Smith has been charged with the following:

231(7). SECOND DEGREE MURDER: Second degree murder encompasses all murder that is not considered first degree murder. First degree murder includes acts that are planned and deliberate. However, if the victim is a law enforcement officer or a correctional staff member, or if the murder occurred during the commission of another violent offence (e.g. kidnapping, sexual assault), regardless of whether the murder was unplanned or deliberate, it could be considered first-degree murder. The defendant is charged with second degree murder.

Please take into consideration all the information you have heard today, and do not let any biases you may have come into your decision making process.

Appendix B
Verdict and Verdict Confidence Form

Please complete the following demographic section

Age: _____	Ethnicity: _____
Gender (Please circle): Male Female	Primary Language: _____

Please answer the following questions regarding your verdict.

With respect to the **second degree murder** charge, please rate the degree to which you find the defendant, Mr. Robert Smith, guilty.

Please circle one value on the scale below.

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not at all					Moderately					Definitely
Guilty					Guilty					Guilty

Please check one of the boxes below.

☐	☐
Not Guilty	Guilty

How confident are you regarding your verdict decision (i.e., Guilty or Not Guilty)?

0	10	20	30	40	50	60	70	80	90	100
Not Confident										Extremely
at all										Confident

In your own words, please describe in the space below how you made your final verdict decision (i.e., what factors did you consider in reaching your verdict of guilty or not guilty?)

Appendix C
Witness Reliability and Credibility Form

Please answer the following questions regarding the testimony from the respective witnesses.

1. How reliable was the description of the noise heard on the night of the crime provided by the superintendent, **Steve Jacobs**?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Reliable</i>									<i>Extremely</i>	
<i>at all</i>									<i>Reliable</i>	

2. How reliable was **Steve Jacobs**' description of the apartment crime scene?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Reliable</i>									<i>Extremely</i>	
<i>at all</i>									<i>Reliable</i>	

3. How credible was **Steve Jacobs**' testimony?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Credible</i>									<i>Extremely</i>	
<i>at all</i>									<i>Credible</i>	

4. How truthful was **Steve Jacobs**' testimony?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Truthful</i>									<i>Extremely</i>	
<i>at all</i>									<i>Truthful</i>	

5. How honest was **Steve Jacobs**' testimony?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Honest</i>									<i>Extremely</i>	
<i>at all</i>									<i>Honest</i>	

6. How accurate was **Steve Jacobs**' testimony?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Accurate</i>									<i>Extremely</i>	
<i>at all</i>									<i>Accurate</i>	

7. How reliable was the description of the location in the park given by **Colin Davidson**?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Reliable</i>									<i>Extremely</i>	
<i>at all</i>									<i>Reliable</i>	

8. How reliable was **Colin Davidson's** testimony describing what occurred during the interaction in the park?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Reliable</i>									<i>Extremely</i>	
<i>at all</i>									<i>Reliable</i>	

9. How reliable was **Colin Davidson's** description of the distance between himself and the two men in the park?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Reliable</i>									<i>Extremely</i>	
<i>at all</i>									<i>Reliable</i>	

10. How reliable was the identification decision by **Colin Davidson**?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Reliable</i>									<i>Extremely</i>	
<i>at all</i>									<i>Reliable</i>	

11. How reliable was the description of the appearance of the man in the park provided by **Colin Davidson**?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Reliable</i>									<i>Extremely</i>	
<i>at all</i>									<i>Reliable</i>	

12. How reliable was **Colin Davidson's** description of the age of the man in the park?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Reliable</i>									<i>Extremely</i>	
<i>at all</i>									<i>Reliable</i>	

13. How reliable was **Colin Davidson's** in-court demonstration of his visual ability?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Reliable</i>									<i>Extremely</i>	
<i>at all</i>									<i>Reliable</i>	

14. How honest was **Colin Davidson's** testimony?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Honest</i>									<i>Extremely</i>	
<i>at all</i>									<i>Honest</i>	

15. How credible was **Colin Davidson's** testimony?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Credible</i>									<i>Extremely</i>	
<i>at all</i>									<i>Credible</i>	

16. How accurate was **Colin Davidson's** testimony?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Accurate</i>									<i>Extremely</i>	
<i>at all</i>									<i>Accurate</i>	

17. How truthful was **Colin Davidson's** testimony?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Truthful</i>									<i>Extremely</i>	
<i>at all</i>									<i>Truthful</i>	

18. Do you believe that **Colin Davidson** had any understanding that the event he witnessed in the park was a crime?

1	10	20	30	40	50	60	70	80	90	100
<i>No Understanding</i>									<i>Complete</i>	
<i>at all</i>									<i>Understanding</i>	

19. How reliable was **Robert Smith's** account of his relationship with the victim?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Reliable</i>									<i>Extremely</i>	
<i>at all</i>									<i>Reliable</i>	

20. How reliable was **Robert Smith's** account of his whereabouts on the night of the crime?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Reliable</i>									<i>Extremely</i>	
<i>at all</i>									<i>Reliable</i>	

21. How credible was **Robert Smith's** testimony?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Credible</i>									<i>Extremely</i>	
<i>at all</i>									<i>Credible</i>	

22. How truthful was **Robert Smith's** testimony?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Truthful</i>									<i>Extremely</i>	
<i>at all</i>									<i>Truthful</i>	

23. How honest was **Robert Smith's** testimony?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Honest</i>									<i>Extremely</i>	
<i>at all</i>									<i>Honest</i>	

24. How accurate was **Robert Smith's** testimony?

1	10	20	30	40	50	60	70	80	90	100
<i>Not Accurate</i>									<i>Extremely</i>	
<i>at all</i>									<i>Accurate</i>	

Appendix D

Beliefs Questionnaire

Please indicate how strongly you agree or disagree with each statement below.

Note: "Children" are considered 10 years of age or younger.

1. Adults are able to recall an event they witnessed at least one week before more accurately than children.

1	10	20	30	40	50	60	70	80	90	100
<i>Strongly Disagree</i>										<i>Strongly Agree</i>

- Adults are able to recognize an individual they witnessed at least one week before more accurately than children.

1	10	20	30	40	50	60	70	80	90	100
<i>Strongly Disagree</i>									<i>Strongly Agree</i>	

3. Compared to adults, children are more likely to change their recollections of an event when asked misleading or suggestive questions.

1	10	20	30	40	50	60	70	80	90	100
<i>Strongly Disagree</i>										<i>Strongly Agree</i>

4. Eyewitness testimony provided by adults is more accurate than eyewitness testimony provided by children.

1	10	20	30	40	50	60	70	80	90	100
<i>Strongly Disagree</i>									<i>Strongly Agree</i>	

5. Eyewitness testimony provided by children is more complete than eyewitness testimony provided by adults.

1 10 20 30 40 50 60 70 80 90 100
Strongly Disagree Strongly Agree

6. Eyewitness testimony provided by adults is more credible than eyewitness testimony provided by children.

1	10	20	30	40	50	60	70	80	90	100
<i>Strongly Disagree</i>										<i>Strongly Agree</i>

7. Eyewitness testimony provided by children is likely to be more honest than eyewitness testimony provided by adults.

1	10	20	30	40	50	60	70	80	90	100
<i>Strongly Disagree</i>									<i>Strongly Agree</i>	

8. Children do not possess the necessary cognitive abilities to act as reliable eyewitnesses in court.

1	10	20	30	40	50	60	70	80	90	100
<i>Strongly Disagree</i>										<i>Strongly Agree</i>

9. Children's lack of life experience and knowledge of "right and wrong" make them unreliable eyewitnesses in court.

1 10 20 30 40 50 60 70 80 90 100
Strongly Disagree Strongly Agree

10. You are presented with the eyewitness testimony of a child and an adult. Both the child and adult witnessed the same event, but have very different accounts of what happened and who was involved.
The testimonies cannot be proved or disproved, but the adult's testimony is likely to be more accurate and reliable than the testimony of the child.

1 10 20 30 40 50 60 70 80 90 100
Strongly Disagree Strongly Agree

Appendix E
Manipulation Check Form

Please answer the following questions. Circle the letter that corresponds to your answer.

1. How old is Colin Davidson at the time of the trial?
 - a. 5 years old
 - b. 10 years old
 - c. 55 years old
 - d. 25 years old

2. Where did Colin Davidson witness the defendant and the victim?
 - a. Jackson Park
 - b. Parking lot
 - c. Shopping center
 - d. Blackpool Beach

3. When asked by the police to identify the suspect in a lineup, Colin Davidson testified that he:
 - a. picked out number 4 from the lineup
 - b. did not pick out anyone from the lineup
 - c. could not decide between two lineup members
 - d. could not remember if he picked out anyone from the lineup

4. Colin Davidson testified that, with respect to the lineup decision, the police had told him that he:
 - a. had correctly identified the suspect
 - b. had not picked out the suspect
 - c. could not pick two lineup members, he could only pick one
 - d. had actually picked out the son of a police officer who was known to be innocent

5. What did Colin Davidson witness between the defendant and victim?
 - a. the defendant assaulted the victim
 - b. the defendant and victim exchanged a bag of white powder and money
 - c. the defendant and victim ate sandwiches together
 - d. the defendant and victim played Frisbee together

Appendix F
Informed Consent

The purpose of an informed consent is to ensure that you understand the purpose of the study and the nature of your involvement. The informed consent must provide sufficient information such that you have the opportunity to determine whether you wish to participate in the study.

Present Study: Analyzing the Influence of Witness and Crime variables on Juror Verdict and Perceptions

Research Personnel: Emily Fox is the principal investigator in this research project and may be contacted at 520-2600, ext. 3695 should you have any research concerns. The faculty sponsor is Dr. Joanna Pozzulo who can also be reached regarding research concerns at 520-2600, ext. 1412.

Other Contacts: Should you have any ethical concerns about this study, then please contact Dr. Avi Parush (Chair, Department of Psychology Ethics Committee, 520-2600, ext. 6026) or Dr. Anne Bowker (Acting Chair, Department of Psychology, 520-2600, ext. 2648).

Purpose: The purpose of this study is to examine how witness and crime characteristics impact on juror decision-making.

Task Requirements: You will be required to read a 6-page transcript of a fictitious murder trial. Once you have read the transcript, you will be asked to complete four brief pencil and paper questionnaires regarding details that you read about in the transcript.

Duration and Locale: Your involvement in the study will take approximately 45 minutes. Participation will take place in Room 111 of the Social Science Research Building.

Potential Risk/Discomfort: There are no known potential physical or psychological risks in this experiment.

Anonymity/Confidentiality: The data collected in this experiment are confidential. All data are coded such that your name is not associated with the data. In addition, the coded data are made available only to researchers associated with this project.

Right to Withdraw: You have the right to withdraw from the experiment at any time without penalty.

Signatures: I have read the above description and understand the conditions of my participation. My signature indicates that I agree to participate in the experiment.

Participant's Name: _____ Participant's Signature: _____
Researcher's Name: _____ Researcher's Signature: _____
Date: _____

Appendix G

Written Debriefing

Thank you for agreeing to take part in this research! Please take a few moments to read through this debriefing which will further explain the study you participated in.

What are we trying to learn in this research?

The purpose of this study is to examine how age of eyewitness and type of crime impact on juror decision-making depending on whether or not the witness identified the suspect from a police lineup. Inconsistencies in witness' reporting of crime details has not been shown to affect their verdict decisions, but errors in their identifications from police lineups have not been thoroughly investigated. Child witnesses are generally perceived as inferior compared to adult witnesses, but it is unclear whether or not this is related to the type of crime they witnessed or the identification decisions they made. In this study, the witness was either 10 or 25 years old, and the type of crime was a drug deal or a physical assault. These variables have not been investigated in combination, and you are helping us offer a new contribution to this field.

Why is this important to scientists or the general public?

These issues are important because in real court cases, jurors often hear testimony from eyewitnesses who have made ambiguous or mistaken identifications and they have to consider this evidence when they ultimately decide on the guilt or innocence of an accused. Research has shown that when witnesses positively identify a suspect from a police lineup, jurors are more likely to find the defendant guilty. However, little is known about the relationship between identification decision, age of witness, and type of crime with respect to juror decision-making.

What are our hypotheses and predictions?

We believe that when an eyewitness has positively identified the suspect from a police lineup and that witness is an adult, that jurors will be more likely to find the accused guilty. On the other hand, when an eyewitness is a child, we expect that jurors will be less likely to find the accused guilty, regardless of the type of identification decision they made when looking at the police lineup. However, child witnesses may be considered more credible when the type of crime is non-physical, as in our drug deal condition.

Where can I learn more?

If you are interested in learning more about the impact of eyewitness identification decisions, age of eyewitness, and type of crime on jury decision-making, please refer to the following sources:

Pozzulo, J. D., Lemieux, J. M. T., Wells, E., & McCuaig, H. J. (2006). The influence of eyewitness identification decisions and age of witness on jurors' verdicts and perceptions of reliability. *Psychology, Crime & Law*, 12(6), 641-652.

Ross, D. F., Dunning, D., Toglia, M. P., & Ceci, S. J. (1990). The child in the eyes of the jury: Assessing mock jurors' perceptions of the child witness. *Law and human behavior*, 14(1), 5-23.

What if I have questions later?

If you have any further research questions, please contact Emily Fox (Principal Investigator) at 520-2600, ext. 3695 or Dr. Joanna Pozzulo (Faculty Sponsor) at 520-2600, ext. 1412.

Should you have any ethical concerns about this study, please contact Dr. Avi Parush (Chair, Department of Psychology Ethics Committee, 520-2600, ext. 6026) or Dr. Anne Bowker (Acting Chair, Department of Psychology, 520-2600, ext. 2648).

Email addresses:

Emily Fox: efox2@connect.carleton.ca
Dr. Joanna Pozzulo: Joanna_pozzulo@carleton.ca
Dr. Avi Parush: avi_parush@carleton.ca
Dr. Anne Bowker: psychchair@carleton.ca

Is there anything I can do if I found this experiment to be emotionally draining?

If for any reason, this experiment has raised concerns of a personal nature for you, you may contact Carleton University Health and Counseling Services, 520-6674 or the Distress Centre of Ottawa 238-3311 for further consultation.

Appendix H

Reasons for Juror Verdicts

1. Not enough evidence in general (both testimonies weak/unreliable)
2. Only circumstantial evidence against defendant.
3. Not beyond a reasonable doubt / "Innocent until proven guilty"
4. No eyewitness to actual murder.
5. No physical evidence (e.g. DNA, fingerprints, etc)
6. "Guilty until proven innocent" - Defendant did not show proof that he did not commit this act; no alibi/could not contact alibi.
7. Dispute in park does not mean Defendant committed murder.
8. Defendant had a motive.
9. Defendant and victim had a troubled history
10. Defendant showed no remorse.
11. Defendant lied.
12. Witness did not ID someone
13. Witness ID'd wrong person.
14. Witness positively ID'd defendant.
15. Witness generally reliable
16. Witness generally unreliable
17. Child witness generally unreliable.
18. Murder as retaliation for money owing doesn't make sense.
19. Witness saw a fight/argument.
20. Witness saw a drug deal/stigma of drug deal.
21. Participants' knowledge of eyewitness issues.
22. Crown was convincing.
23. Crown was not convincing.
24. Defense was convincing.
25. Defense was not convincing.