

The Effect of Memory-Focused Judicial Instructions on Juror Decision-Making

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Abstract

In New Zealand, child sexual assault is highly prevalent and it is not uncommon that there is a delay in reporting the alleged offence. Currently, judges are required to provide judicial instructions regarding memory if the alleged crime occurred more than a decade ago. Historic child sexual assault cases are challenging because there is often a lack of corroborating evidence as well as physical evidence. Jurors' decisions, therefore, must rest primarily on memory-based evidence. This can raise many memory-related issues, which the average juror has a limited understanding of. Given that New Zealand has no statute of limitations, and therefore, the aim of the current study was to examine the impact of a memory-focused judicial instruction on juror decision-making in cases of historic child sexual abuse. Mock jurors read a case of historic child sexual assault and either received a memory-focused instruction or no instruction at all. I examined whether there were differences in mock jurors' verdicts, ratings of guilt, and ratings of the believability of the witness as a function of judicial instruction condition. I found that a judicial instruction did influence mock jurors' verdicts. Fewer participants who received the judicial instruction found the defendant guilty than did participants who received no instruction at all. Participants were also confident in their verdict decisions. I also found that while a judicial instruction did not significantly affect mock jurors' believability ratings, verdict significantly affected believability ratings. These findings provide some insight into the impact that memory-focused instructions may have on juror's judgements in cases of historic child sexual assault.

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The Effect of Memory-Focused Judicial Instructions on Juror Decision-Making

In New Zealand (NZ) criminal courts, a judge oversees the trial process whereby evidence is presented by the prosecution and the defence. There are two types of trials: judge-alone trials and jury trials. In a judge-alone trial, it is up to the judge to decide the verdict. In jury trials, on the other hand, the judge advises the jury about the facts of the case, but it is the jury's responsibility to reach a verdict (Bornstein & Greene, 2011). As such, juries play an important role in the legal system. Despite the importance of their role, jurors are ordinary citizens who often lack the knowledge necessary to make sense of complex and conflicting evidence. Evidence presented in court often contains legal jargon and sometimes includes complex scientific evidence including information about DNA, fingerprints, and ballistics. Many cases, particularly those that involve sexual assault, rest primarily on the complainant's memory of the event in question and can sometimes raise highly technical issues involving memory. These memory issues include forgetting, memory distortion, and childhood amnesia. Like other kinds of scientific knowledge, the average juror has limited understanding of many of these memory-related issues (Wise, Sartori, Magnussen, & Safer, 2014). In New Zealand, current convention requires a judge to provide directions regarding memory if the alleged crime occurred more than a decade ago, but to date, there is very little evidence that jurors use the directions as part of their decision-making process. In the present research, I investigated the impact of memory-focused judicial directions on the way in which mock jurors make their verdict decisions.

Child Sexual Assault

In New Zealand, child sexual assault (CSA) is highly prevalent. In a World Health Organisation study, it was found that 28% of women ($n = 2,855$) had experienced CSA, which was higher than the other 10 countries included in the study (Fanslow, Robinson, Crengle, & Perese, 2007). A birth cohort study of over 1,000 New Zealand children found

that by age 25, 16% or 1 in 6 people reported experiencing some form of sexual assault before the age of 18 (Fergusson, Boden, & Horwood, 2008). In New Zealand, there is no statute of limitations for criminal offences, meaning there is no maximum time after an event within which it must be reported. In cases involving CSA, it is not uncommon that there is a delay between the time of the alleged offence and when a complaint is made (Flatman & Bagaric, 1998). This delay can range from years to decades later. When the delay between the alleged event and the allegations is very long, these cases are often referred to as cases of historical child sexual abuse (HCSA). It has been estimated that two-thirds of CSA victims delay reporting their abuse and half of those victims do not report it until they are adults (London, Bruck, Ceci, & Shuman, 2005). There are several reasons for a delay in reporting of CSA, including the age of the victim, reluctance to speak, self-blame, and family dynamics (Flatman & Bagaric, 1998).

Due to the time lapse in reporting CSA, several memory-related issues become even more prominent, for example, the effects of memory decay, loss of physical evidence, lack of corroborating evidence, and unavailable witnesses (Flatman & Bagaric, 1998). In court, delays in reporting CSA may be a disadvantage to both the complainant and the defendant. For example, the memory of the complainant for specific details may have decayed such that it adversely impacts the believability of their testimony. In turn, a significant delay in making an allegation will also negatively impact the memory of the defendant such that they have difficulty in establishing their alibi, impeding their ability to defend themselves (Flatman & Bagaric, 1998).

Delayed reporting can also influence the jury's verdict. Some researchers have found that guilty verdicts are more likely in cases involving immediate reporting compared to when there was delay in reporting. For example, Pozzulo, Dempsey, and Crescini (2010) investigated the factors that affected jurors' decisions in HCSA cases. Mock jurors read a

transcript involving a HCSA case that varied three factors, one of them being the delay between the time of the alleged act and the time of reporting (2 vs. 15 vs. 30 years, later). Pozzulo et al. found that mock jurors assigned higher guilt ratings to the defendant when there was a 2-year delay in reporting compared to a 30-year delay. They also found that lengthier sentence recommendations were associated with the shorter delay condition. These findings suggest that mock jurors were less accepting of a complainant's memory of the event (i.e. their testimony) when the delay was longer.

Golding, Seago, Sanchez, and Hasemann (1995) also examined the length of delay in reporting CSA and jurors' verdicts. In their study, mock jurors read a CSA case that was presented in one of three conditions: a) immediate reporting of alleged assault, b) reporting of alleged assault after remembering it for the first time 20 years later (i.e., repressed memory), and c) reporting of alleged assault after 20 years of continuous memory. Mock jurors in both of the delayed-reporting conditions rendered fewer guilty verdicts than did mock jurors in the immediate-reporting condition.

CSA cases are challenging because the outcome often rests on evaluations of credibility which are further complicated by the lack of corroborating evidence (Lewis, 2006). In Golding et al.'s (1995) study, mock jurors were not only asked to render a verdict in the CSA case but also to rate the believability of the complainant; complainants were rated as being less believable when they reported the assault after a delay. Other researchers have also found associations between credibility and sentence recommendation. Lewis, Klettke, and Day (2013), for example, examined the extent to which a number of variables (e.g., credibility of the victim, number of offences) influenced sentencing in CSA cases. Data for this study were obtained from trial transcripts of 66 CSA cases from the County Court of Victoria, Australia. The authors coded each transcript and rated the believability of each argument presented during the defence's cross-examination of the victim. They found that

lower levels of credibility of the complainant were associated with shorter sentencing recommendations for the defendant.

Emotions displayed by witnesses have also been found to influence credibility, which in turn have been shown to influence verdict decision. For example, Kaufmann, Drevland, Wessel, Overskeid, and Magnussen (2003), investigated the effects of emotions displayed by witnesses on ratings of their credibility. Participants viewed one of six videotaped versions of testimony from a sexual assault victim. The testimony represented a strong or weak rape scenario with one of three different emotions displayed by the victim: congruent, neutral, or incongruent. In the congruent condition, the victim displayed emotions expected of a rape victim (e.g., sobs, despair). In the neutral condition, the victim testified with little display of emotion. In the incongruent condition, the victim displayed emotions not expected of a rape victim (e.g., smiling). Overall, credibility ratings were reduced when the victim displayed neutral or incongruent emotions compared to when victims displayed congruent emotions. Participants who were exposed to congruent emotions were also more likely to judge the probability of the defendant being guilty higher than did participants who were exposed to neutral or incongruent emotions. These results suggest that the emotions displayed during testimony can be a strong determinant of the credibility of a sexual assault victim as well as the probability of guilt.

Taken together, research highlights the importance of timely disclosure of CSA and also suggests that credibility is an important factor in the outcome of CSA abuse cases. Inevitably, in HCSA cases, jurors' decisions must rest primarily on the witness's memory for the event in question.

Judicial Instructions

Providing additional instructions is one of many tools that the Court can use to help jurors make their verdict decisions. In many trials, the judge will provide instructions about important matters at hand (Coyle & Thomson, 2014). For example, judges regularly provide instructions about the degree to which particular aspects of evidence are admissible (e.g., hearsay evidence) or reliable (e.g., a witness's demeanor as an indicator of truth-telling). In general, judicial instructions can be considered in two broad categories based on their purpose: 1) *charging instructions*, and 2) *warnings*. Charging instructions explain the role of the jury, describe laws relevant to the crime, and point out potential problems with evidence (e.g., eyewitness evidence). Warnings are instructions given to jurors to inform them to limit their use of evidence (Tanford, 1990). In most legal jurisdictions, judicial instructions are presented after the evidence (Kassin & Wrightsman, 1979). This practice is likely based on the assumption among legal professionals that presenting instructions after the evidence (rather than before) will help jurors to remember and recall the instructions better when it comes to deliberation (Elwork, Sales, & Alfini, 1977).

One purpose of judicial instructions provided by the judge is to serve as a guide for understanding legal concepts (McKimmie, Antrobus, & Baguley, 2014). Although these kinds of judicial instructions are designed to help jurors, they often contain complicated language and include facts that are not necessary for jurors to consider, raising concern over whether jurors understand the judicial instructions presented to them (Trimboli, 2008). Empirical research designed to assess the usefulness of judicial instructions to enhance jurors' understanding has yielded equivocal findings (Eastwood & Caldwell, 2015). Laboratory-based research with mock juries and post-trial interviews with real jurors has revealed that jurors often have difficulty understanding judicial instructions (Bornstein & Greene, 2011; Bornstein & Hamm, 2012; Reifman, Gusick, & Ellsworth, 1992). For

example, Reifman et al. surveyed 224 Michigan citizens who were called for jury duty in the United States about their understanding of judicial instructions about the law. In the survey, Reifman et al. assessed jurors' memory of the instructions and compared the performance of those who had served as jurors (and so had received instructions) to the performance of those who had been called for jury duty but had not been selected as a juror. The survey also contained questions to assess whether jurors who received instructions about substantive law (law that defines the rights and duties of the parties; Gerdy, 2000), understood that law better than they understood procedural law (law that governs proceedings of the courts; Gerdy, 2000; Reifman et al., 1992). Finally, participants were asked about the type of trial they served (if any), how the judge delivered the instructions, their previous experience with jury duty or with the law, and about the law around various crimes. Reifman et al. found that participants who had served on a jury understood less than 50% of the judicial instructions that they received at trial. In addition, although jurors who received judicial instructions performed better than those who had been called but not served (hence had not received instructions) when asked about procedural law, they performed no better when asked about substantive law.

Common charging instructions include definitions of important legal terms such as "beyond reasonable doubt" and "burden of proof," but researchers have revealed that jurors still have limited understanding of these terms (McKimmie et al., 2014). McKimmie et al. surveyed 33 jurors who had recently served on a jury and assessed their subjective (perception of understanding) and objective (actual understanding) comprehension of jury instructions about reasonable doubt and burden of proof. Jurors were asked to indicate to what extent they understood the jury instructions and to explain "beyond reasonable doubt" and "burden of proof" in their own words. Most jurors indicated that they understood both reasonable doubt and burden of proof, but when asked to explain each concept, only 13 out of

33 jurors could accurately explain beyond reasonable doubt, and only 20 out of the 33 jurors could accurately explain burden of proof. That is, although jurors reported high levels of understanding of the judicial instructions, their actual understanding was relatively low.

In contrast to their lack of impact on jurors' understanding of legal concepts, judicial instructions have been found to be beneficial in reducing common misconceptions about CSA and enhancing complainant believability in CSA cases. In one study, for example, researchers investigated the impact of judicial instructions on common misconceptions about CSA (Goodman-Delahunty, Cossins, & O'Brien, 2010). Participants read one of five versions of specialised CSA knowledge presented via either judicial instructions prior to reading evidence, judicial instructions following reading evidence, a clinical psychologist, or a general educative expert. In the fifth version, participants were not provided with specialised CSA knowledge at all. Participants then completed a series of questionnaires about complainant believability and then they rendered verdicts to the allegation. The researchers found that misconceptions about CSA were reduced by exposure to specialised information about CSA presented via judicial instructions or from an expert witness. Additionally, they found that judicial instructions increased the believability of the complainant, which in turn predicted guilty verdicts.

Researchers have also examined the impact of different types of judicial instructions on mock jurors' verdicts. In one of the earliest studies looking at judicial instructions and mock jurors' verdicts, Hans and Brooks (1977) examined the effects of instructions about corroboration on a jury's judgment of guilt in a rape case. Corroboration instructions are intended to warn jurors of the danger of convicting a defendant in the absence of corroboration on testimony of a child, or a victim of sexual assault. In Hans and Brooks' study, participants were assigned to small juries of four members. Participants listened to one of four tape-recorded trials. All participants heard the same trial and the first part of the

judge's instructions which defined rape. Then, participants were assigned to one of four instruction conditions. Some participants heard no further instructions; some received a warning about the victim's reliability and a list of the potentially corroborative evidence in the case; some received only a warning about the victim's reliability; and finally, the remaining participants received only a list of the potentially corroborative evidence. Juries were instructed to deliberate and to then render a unanimous guilty or not guilty verdict. Juries who heard some form of corroboration instruction tended to find the defendant guilty less often than did juries who did not hear any corroboration instructions.

In another early research study on judicial instructions, Katzev and Wishart (1985) examined the influence of instructions about eyewitness identification on verdicts rendered by mock jurors. The aim of these instructions was to focus jurors' attention on issues surrounding eyewitness identification and testimony. Participants watched a videotaped simulation of a trial involving a burglary and then listened to one of three versions of the judge's instructions. The first version contained standard instructions regarding juror responsibility. The second version contained a summary of the evidence presented during the trial in addition to the standard instructions. The third version contained eyewitness instructions in addition to the standard instructions and summary of the evidence. The eyewitness instructions emphasised the fallibility of eyewitness identification and highlighted some of the issues commonly involved in eyewitness identification (e.g., lighting conditions). Following the instructions, participants individually rendered a verdict before deliberating in groups to reach a unanimous guilty or not guilty verdict. Jurors who heard the eyewitness identification instructions rendered significantly fewer guilty verdicts than did jurors who heard only the standard instructions and jurors who heard standard instructions and a summary of the evidence. In addition, jurors who heard the eyewitness instructions deliberated for less time than did jurors who did not hear the eyewitness instructions.

Researchers have also examined differences in verdicts between mock jurors who received judicial instructions and those who received no judicial instructions at all. For example, Cruse and Browne (1987) examined the effect of the timing of judicial instructions about grand larceny (theft of another person's property) on mock jurors' verdicts. Mock jurors were randomly assigned to receive pre-evidence instructions, post-evidence instructions, pre- and post-evidence instructions, or no instructions at all. After reading the instructions and evidence, mock jurors then rendered a verdict and provided a reason for their verdict. Cruse and Browne found that the timing of instructions made a difference in verdicts rendered by mock jurors. Mock jurors who received judicial instructions about grand larceny rendered fewer guilty verdicts than did those who did not receive instructions.

In another study, Nikonova and Ogloff (2005) examined the impact of judicial instructions about child witnesses and witness age on mock jurors' verdicts. The researchers employed a set of jury instructions that can be used in Canadian Criminal courts when a child is a witness. The aim of the instruction is to alert the jury to the potential danger of convicting a defendant based on uncorroborated evidence from a child witness. In Nikonova and Ogloff's study, all participants listened to an audiotaped theft trial where the age of the witness was either 7 or 10 years. Participants then received instructions or not. After listening to the trial, participants individually rendered a verdict and rated the credibility of the witness and the defendant. When the witness was 7-years old, the presence of judicial instructions had no impact on guilty verdicts. When the witness was 10-years old, on the other hand, there were fewer guilty verdicts when the judicial instructions were present than when they were absent.

In another study on the impact of judicial instructions on juror decision-making, Zdrok and Bersoff (2003) investigated the effects of judicial instructions to disregard the defendant's decision to remain silent. In their study, jurors watched one of three versions of a

two-hour-long truncated version of a trial involving robbery and conspiracy. The trial versions differed in the strength of the instruction to disregard the defendant's decision to remain silent. In Version 1, no instruction was given; in Version 2, a simple instruction was given; and in Version 3, a strong instruction to disregard the defendant's silence was given. After participants watched the trial, they first rendered individual verdicts. Next, they were randomly assigned to small groups of 2-6 jurors and instructed to deliberate and render a verdict as a group. Consistent with the researchers' predictions, instructing the jurors to disregard the defendant's decision to remain silent resulted in greater rates of guilty verdicts. This was true for both versions of the judicial instructions, and for verdicts rendered pre- and post-deliberation.

Researchers have also found an influence of judicial instructions about reasonable doubt on jurors' verdicts. In one study conducted online, for example, Cichinni and White (2017) had mock jurors each read a hypothetical case involving child sexual assault. They were then randomly assigned to one of three groups, each of which received a different type of instruction. Group 1 received instructions which told them to "search for the truth," Group 2 received legal judicial instructions on reasonable doubt, and Group 3 received a combination of instructions on reasonable doubt and to "search for the truth." After reading the judicial instructions, jurors were asked to render a verdict. Mock jurors in Groups 1 and 3 rendered an almost identical number of guilty verdicts (Group 1: 30%; Group 3: 29%), however, only 16% of mock jurors in Group 2 rendered a guilty verdict. Participants were also asked to rate how certain they were that they had made a correct decision. The mean for all three groups was 7 (fairly certain) on a 10-point rating scale. Mock jurors who received instructions to "search for the truth" convicted at a significantly higher rate than did jurors who received only the legal jury instructions on reasonable doubt.

In contrast to the research described above, other researchers have found that providing judicial instructions has no effect on jurors' verdicts. For example, Kassin and Wrightsman (1981) investigated whether judicial instructions on voluntariness (a choice made on the basis of a person's free will, as opposed to being made as a result of coercion) could influence jurors' evaluations of evidence involving a coerced confession. In their first experiment, participants read a transcript involving a case of auto theft in which the defendant had either confessed on his own, after an offer of leniency, or after a threat of punishment. Participants then received either a short form of a voluntariness instruction which directed them to ignore a coerced confession, a longer form which further defined voluntariness, or no instructions at all. Once participants finished reading the transcripts and instructions (if any), they made a voluntariness judgment, rendered a verdict, and rated their confidence in that verdict. Participants disregarded the confession after a threat of punishment, but not the confession after an offer of leniency. Participants who read the confession after an offer of leniency rendered a higher percentage of guilty verdicts compared to participants who read the voluntary confession or the confession after a threat of punishment. Neither version of the judicial instructions significantly altered these guilty verdicts.

In Kassin and Wrightsman's (1981) second experiment, participants read an assault case involving a voluntary or a positively-coerced confession and were provided with one of four different types of judicial instructions. Participants received judicial instructions about credibility, which stressed the unreliability of coerced confessions; sympathy, which stressed the unfairness of coerced confessions; a combination of credibility and sympathy; or received no instructions at all. Once participants finished reading the transcripts and instructions (if any), they made a voluntariness judgment, rendered a verdict, and rated their confidence in that verdict. Although neither version of the judicial instructions significantly affected

verdicts, the combined instruction significantly reduced the frequency of voluntariness judgments.

Researchers have also found that the timing of judicial instructions (prior to or after evidence) may have no effect on the verdicts rendered by mock jurors. For example, Greene and Loftus (1985) examined the influence of instructions about multiple offences on mock jurors' verdicts. The trial consisted of hypothetical transcripts which described a murder charge and a rape charge. Judicial instructions about multiple offenses were taken from the Washington State Pattern Instructions, a database of jury instructions. The main measure was the rating of guilt on a 7-point scale. Participants were randomly assigned to one of three groups. Group one read the judicial instructions before the transcripts, group two read the judicial instructions after the transcripts, and group three were given no instructions at all. The mean guilt ratings for all three groups were between 4.31 and 4.63. That is, Greene and Loftus found no difference in the effect of pre-evidence and post-evidence instructions on ratings of guilt.

Another type of judicial instructions that have been examined in relation to jurors' verdicts are limiting instructions. Limiting instructions are provided by a judge to instruct jurors to disregard inadmissible evidence. For example, Paglia and Schuller (1998) examined the effect of limiting instructions on juror's verdicts. Paglia and Schuller recruited mock jurors who were exposed to one of six versions of a homicide trial that included hearsay evidence. Jurors listened to limiting instructions either immediately after the evidence, at the end of the trial, or at both of these times. Following the trial, mock jurors rendered a verdict and rated the strength of each case. Paglia and Schuller found that presenting instructions immediately after the evidence, at the end of the trial, or at both of these times had no effect on jurors' verdicts.

Although we have no way of knowing whether the verdicts rendered in these studies are the correct decision or not, the evidence suggests that overall, the evidence is relatively equal for an impact or for no impact of judicial instructions on jurors' verdicts. The variations in these research findings may indicate that the ultimate effect of instructions may depend on the case and other legal materials. So far, I have discussed many types of judicial instructions and their impact on juror decision-making. It is beneficial to consider other contexts where providing jurors with additional information may be useful. In many cases, particularly cases involving HCSA, jurors must evaluate memory-based evidence. Many people, however, have misconceptions about how memory works and are unaware of the myriad of issues associated with memory. These misconceptions will be discussed in the next section. Accordingly, it is important to examine how memory-focused judicial instructions influence juror decision-making in cases of HCSA.

Memory-Focused Judicial Instructions

Despite what many people believe, our memories are not necessarily an exact and accurate representation of our past experiences. Instead, memories are pieces of past experiences put together in a plausible manner (Howe, 2013; Lynn, Evans, Laurence, & Lilienfeld, 2015). Both laypeople and professionals hold a number of misconceptions about memory. In one study documenting common misconceptions about memory, Simons and Chabris (2011) conducted a telephone survey with 1500 respondents in the United States assessing their beliefs about memory. The survey consisted of 16 questions based on common misconceptions about memory. Alarming, 63% of respondents agreed that memory works like a video camera, providing an exact and accurate representation of past experiences – this view is inconsistent with what the scientific literature tells us about memory. Additionally, 83% of respondents agreed that people with amnesia typically cannot recall their own name

and 47.6% of the respondents agreed that once you have experienced an event and formed a memory of it, that memory does not change.

Other researchers have also found a lack of knowledge on memory issues among important stakeholders in court. For example, Benton, Ross, Bradshaw, Thomas, and Bradshaw (2006) examined knowledge of eyewitness memory issues among jurors, judges, and law enforcement workers. Participants were asked to agree or disagree with 30 statements about issues regarding eyewitness memory. Participants' responses were compared to results from memory experts who completed the same questionnaire. Among this sample, jurors had the greatest lack of knowledge on these eyewitness memory issues, disagreeing with experts on 87% of the statements. Judges and law enforcement workers disagreed with experts on 60% of the statements. These findings suggest a significant lack of knowledge about memory issues among jurors, judges, and law enforcement workers.

These misconceptions about memory have also been found among other professional groups. For example, Magnussen and Melinder (2011) surveyed psychologists about their beliefs on how memory works. The survey consisted of 12 topics regarding eyewitness testimony and general memory issues. The correct response alternative for each statement was determined based on reviews of the relevant scientific literature. They found that, in general, clinical psychologists did not perform better than lay people on tests of knowledge of issues of eyewitness memory. Overall, psychologists were only correct 63% of the time. In fact, the average level of knowledge about these particular memory issues for the psychologist sample was similar to the knowledge of the judges and lay people. Taken together, these results reflect the common misconceptions that people hold about the way that memory works (Simons & Chabris, 2011; Magnussen & Melinder, 2011). These misconceptions can have consequences in court cases where jurors have to evaluate evidence which is primarily memory-based (e.g., HCSA cases). Providing jurors with additional

information through memory-focused judicial instructions is one way to help them evaluate memory-based evidence. Memory-focused instructions are intended to correct common beliefs and misconceptions about memory. In 2012, the New Jersey Supreme Court proposed new judicial instructions called *Henderson* instructions that were designed to assist jurors to evaluate eyewitness evidence by providing them with comprehensive information on human memory and the factors that can influence eyewitness memory and identification (New Jersey Supreme Court, 2012b). Although the findings regarding the effectiveness of memory-focused judicial instructions have been mixed, such instructions may leave jurors more critical of the evidence.

For example, Jones, Bergold, Dillon, and Penrod (2017) examined whether *Henderson* instructions sensitised jurors to unreliable eyewitness testimony. Sensitivity in this context refers to an improvement in jurors' ability to evaluate the quality of an eyewitness identification, such that there is a decrease in guilty verdicts when the identification was weak and increase in guilty verdicts when the identification was strong (Cutler, Dexter, & Penrod, 1989). Participants were randomly assigned to view one of 20 videotaped versions of a trial involving attempted rape. The versions varied in the quality of witnessing conditions, which manipulated exposure duration, weapon presence, and time delay; quality of identification conditions, which manipulated identification procedure type; lineup instructions; and confirmatory feedback, and type of instructions presented. Participants were presented with either no instructions; Henderson instructions; enhanced Henderson instructions; expert testimony; or a combination of Henderson instructions and expert testimony. The Henderson instructions explained the stages and processes of memory as well as the factors that can influence eyewitness memory. The enhanced Henderson instructions also included the judge discussing research findings in relation to estimator and

system factors that can influence eyewitness identification (e.g., lineup instructions, duration of exposure, presence of a weapon).

After viewing their assigned trial and listening to the instructions (if any), each participant rated the witnesses on multiple factors including believability, honesty, and trustworthiness. Participants also were asked to indicate the probability that the eyewitness correctly identified the defendant as the perpetrator and finally to render a guilty or not guilty verdict. Jones et al. (2017) found that expert testimony resulted in scepticism by reducing the likelihood that jurors found the defendant guilty, regardless of identification and witnessing conditions. However, neither version of the judicial instructions influenced verdicts. Although jurors were sensitive to the quality of identification conditions, there was no effect for the quality of witnessing conditions, even with the addition of both versions of the memory-focused Henderson instructions.

Papailiou, Yokum, and Robertson (2015) also investigated the effectiveness of instructions about eyewitness testimony on jurors' evaluations of eyewitness evidence. Mock jurors watched one of four simulations of a 35-minute trial involving a case of murder where the identification quality was weak or strong. After watching the trial, jurors were presented with one of two types of judicial instructions: standard or enhanced eyewitness testimony instructions. The standard instructions contained a short paragraph of information that the juror should consider. The enhanced instructions were longer and based on research on the issues of human memory and variables that can effect memory. Mock jurors then rendered a guilty or not guilty verdict and responded to a series of questions about their confidence in their verdict decision, comprehension of judicial instructions, use of evidence, and reliability of eyewitness testimony. Mock jurors who received the enhanced instructions rendered fewer guilty verdicts than did mock jurors who received the standard instructions.

In another study on the impact of memory-focused judicial instructions on juror decision-making, Kurinec and Weaver (2018) investigated eyewitness language choice and memory-focused judicial instructions. In their first study, participants were randomly assigned to read a transcript of a case involving robbery with the eyewitness using either concrete (e.g., he hit him) or abstract (e.g., he's aggressive) language. After participants read the transcript, they rendered their verdict and answered questions regarding eyewitness credibility. Jurors who read testimony with more concrete language were more likely to render a guilty verdict and more likely to find the eyewitness credible. In Kurinec and Weaver's second study, participants read the same case used in Study 1, and were assigned to read testimony involving either concrete or abstract language. After reading the testimony, participants either read judicial instructions or a document of unrelated content as a filler activity. The judicial instructions described the stages of memory and the factors that can affect eyewitness memory. Jurors then rendered verdicts and rated eyewitness credibility. Consistent with Study 1, jurors who read the testimony with more concrete language were more likely to render a guilty verdict. This effect was mitigated when jurors received memory-focused judicial instructions. That is, jurors who received memory-focused instructions were less likely to render a guilty verdict than were jurors who did not receive memory-focused instructions.

Although the findings on the effects of memory-focused instructions has been mixed, the instructions have been mainly examined in relation to eyewitness identification. There has been very little research on memory-focused instructions in cases of HCSA where the primary evidence is the complainant's memory for the event(s).

The Present Study

Given the prevalence of HCSA in New Zealand and the lack of knowledge about memory among important stakeholders in court, the findings described so far have important

implications especially for cases where the main evidence consists of an adult recalling historic events they allegedly experienced as a child. Cases involving sexual assault are likely to proceed by way of a jury trial of 12 members, as opposed to a judge-alone trial (New Zealand Law Commission, 2012). Cases of HCSA often lack corroborating evidence as well as physical evidence. As such, jurors' evaluations of the case must rest primarily on the memory-based evidence, yet laypeople and jurors have a limited understanding of these memory-related issues. Any time that evidence and instructions are misunderstood, this increases the likelihood of miscarriages of justice and the likelihood of wrongful convictions increases. To date, a total of 365 wrongly-convicted people have been exonerated through the Innocence Project in the United States. The Innocence Project is an organisation that is committed to exonerating wrongly convicted people through DNA testing (The Innocence Project, 2017). Researchers' estimates of wrongful conviction rates over all types of cases vary from 0.5% to 5% (e.g., Poveda, 2001; Zalman, 2013). These estimates are based on court procedural errors and number of exonerations. In New Zealand alone, for the year 2017, a total of 64,433 adults were convicted and sentenced (Statistics New Zealand, 2018). Assuming a conservative wrongful conviction rate of 0.5%, that is an estimated 322 miscarriages of justice per year in New Zealand. It is possible that providing jurors with additional judicial instructions might aid their decision-making processes when evaluating evidence and reaching a verdict.

Much of the existing jury research has focused on the influence of different types of judicial instructions on juror decision-making. However, as far as I am aware, there are no studies on the effects of judicial instructions in HCSA cases. An important question for the Court to consider is whether judicial instructions regarding memory influence jurors' decision-making in cases involving HCSA. In the present research, I assessed the impact of judicial instructions regarding memory, which are currently required in New Zealand courts

if the alleged crime took place more than 10 years ago (Evidence Act 2006, s. 122(2)(e)). To examine the impact of judicial instructions in cases involving HCSA, I compared the pattern of verdicts that mock jurors rendered in a trial involving HCSA when those instructions were provided or not. I also assessed the impact of judicial instructions on mock jurors' ratings of a defendant's guilt and ratings of believability of the witnesses who testified in the trial.

Method

Participants

A total of 60 jury-eligible participants aged between 18 and 63 years were recruited to take part in this study (41 females, 18 males, and 1 participant identified as gender diverse; M age = 38.73 years; $SD = 11.87$)¹. Participants identified as New Zealand European (85%), Māori (5%), Indian (3.3%), Samoan (1.7%), Cook Island Maori (1.7%), Chinese (1.7%), or Asian (1.7%). Participants were recruited from the Psychology Research Participation Pool, through Facebook, or via word of mouth including posters displayed at local supermarkets in Dunedin, New Zealand. Participants were reimbursed NZD\$40 for their costs of participating. Written informed consent was obtained from all participants. Recruitment information clearly stated that the experiment involved exposure to explicit details of an alleged sexual assault, and therefore could cause distress to some people. Potential participants were asked not to take part in the experiment if they felt that such materials would cause them distress. The research was reviewed and approved by the University of Otago Human Ethics Committee (see Appendix A), which is accredited by the New Zealand Health Research Council and whose guidelines are consistent with those of the American Psychological Association.

Materials

Mock jurors were asked to evaluate evidence based on sworn testimony that was provided in the New Zealand District Court. Working with Judge Michael Crosbie, a New Zealand District Court judge in Dunedin for 16 years, we identified a case in which there was little corroborating evidence for the allegations against the accused and, as such, jurors' decisions rested on the complainant's memory for the event in question. I used trial testimony

¹ Only one (female) participant was aged under 24 years.

based on a complainant's direct evidence and cross-examination². During the trial, four witnesses provided direct testimony and were cross-examined; a female complainant, a male defendant, a female prosecution witness, and a female defence witness. The complainant alleged that when she was aged 6, the defendant (the complainant's uncle) inserted his fingers into her vagina while she was on his shoulders at a local swimming pool. The complainant was aged 32 at the time of the trial.

I used the memory instruction currently suggested by the New Zealand Court that was given by Judge McDonald in *DH v R [2015]*:

In view of the significance of these matters in the trial, it may be helpful if I give you some guidance about memories, given the witnesses are referring back to events that happened 25 years ago. Human memories are not stored as if recorded on a tape, unaltered, to be played back at some later time as an exact recording of an event, I am sure you are all perfectly aware of that from your own experiences. Nor are memories always completely accurate. Memory depends in part on knowledge and in part on other sources of information additional to what is recorded when the event is first experienced. So the accuracy and fullness of any person's recall may be dependent on factors such as the time that has passed since the event, and the personal significance of the event. That is a matter of common sense. We all have clear recollections of things that are personally significant to us. The emotive content of the event, the occurrence of other related events, why and by whom the person is being asked to recall, and the kinds of retrieving cues provided at the time of recall all affect the ability to recall an event.

² To anonymise the transcript, we changed the names of all of the witnesses as well as the location where the offence was alleged to have taken place.

So you need to think about those sorts of things when making a decision about particular evidence which depends for its reliability on the fullness of the witness's recollection of what was said and done.

Procedure

Participants were tested in groups in the laboratory. There were three to six participants in each mock jury group. Participants were quasi-randomly assigned to one of two judicial instruction conditions, such that there were even numbers of participants in each of the conditions. Half of the participants were assigned to the *No* condition ($n = 30$) in which participants did not receive judicial instructions. Half were assigned to the *Yes* condition ($n = 30$) in which participants received judicial instructions. After obtaining consent, participants provided demographic information such as their age, gender, ethnicity, and highest level of qualification (see Appendix B for a copy of the demographic questions).

Participants were then asked to put themselves in the role of a juror as they read a transcript of a trial involving a case of HCSA. The transcript was identical for all participants with the one exception that for participants in the *Yes* condition, the end of the transcript contained the New Zealand Court's memory instruction. The transcript that participants in the *No* condition received did not contain the memory instruction.

When all participants finished reading the transcript, they were asked to complete a paper questionnaire (see Appendix C). First, participants were asked to rate the defendant's guilt on a continuous scale from 0% (Not at all guilty) to 100% (definitely guilty). All participants were asked about the following allegation: *At his trial, Arthur Young was charged with the following offence: that between 1 July 1989 and 1 July 1991 at Timaru, he sexually violated Charlotte Brown by having unlawful sexual connection with her. Please indicate your rating of Arthur Young's guilt from 0% being not at all guilty to 100% guilty.* Participants were provided with a 10-cm line with 0% (Not at all Guilty) anchoring one end

and 100% (Definitely Guilty) anchoring the other end and were asked to indicate their guilt rating by marking a line on the scale. After rating the defendant's guilt, participants were asked to use a seven-point scale (1 = *Not at all believable*; 4 = *Neutral*; 7 = *Extremely believable*) to rate the believability of each of the witnesses (e.g., "*Charlotte Brown was the complainant. How believable was her testimony?*").

Once participants completed the questionnaire, the experimenter began the verbal interview (see Appendix D for a copy of the interview questions). First, participants were asked what verdict they had rendered to the charge and to explain their reasoning for their verdict. Participants were then asked to talk about what additional evidence or testimony they thought that they would have needed to reach a different verdict. Next, participants were asked to consider whether there was any other information that the judge or an expert witness could have provided during the trial that would have been helpful to them when considering their verdict. Finally, participants who received the judicial instructions were asked whether the information about the effects of delay on memory was useful and participants who did not receive the judicial instructions were asked whether information about effects of delay on memory would have been useful.

After completing the verbal interview, participants were thanked for their time and debriefed.

Coding

To score participants' guilt rating, I used a ruler to measure the point at which each participant indicated their guilt rating. For example, if the participant marked a point on the line that was 6.5 cm from the start of the line, I coded this as 65% on the scale.

The verbal interviews were audio-recorded and transcribed verbatim. I then coded the participants' statements for their reasoning in rendering a guilty or not guilty verdict to the charges using a coding scheme developed in our laboratory. Jurors' reasons for their verdicts

were coded into one of five categories: 1. Memory-related Issues 2. Attributes of the complainant (e.g., statements about believability, confidence, consistency, demeanour), 3. Attributes of the defendant, and 4. Legal process issues. To establish the reliability of the coding, two coders independently scored 50% of the interviews. There was 78% agreement between the two coders, (Cohen's kappa = 0.77).

Results

Table 1 summarises the descriptive statistics for the demographic variables of participants' age, gender, and education as a function of judicial instruction group. Chi-square tests and independent samples *t*-tests indicated that there were no significant differences between the two groups in relation to their age, gender, and education (all *p*'s > .05).

Table 1

Age, gender, and education distribution of the groups (standard deviations or percentages in parentheses).

Measure	Judicial Instructions (<i>n</i> = 30)	No Judicial Instructions (<i>n</i> = 30)
Age (years)	40.66 (11.09)	37.57 (12.16)
Gender	F = 19, M = 10, GD = 1	F = 22, M = 8
Education		
NCEA Level 1-3	10 (33.4%)	7 (23.3%)
Bachelors/Hons/PGDip Degree/Level 7	14 (46%)	14 (46%)
Postgraduate	1 (3%)	7 (24%)
Other	5 (17%)	-

Note. F = female, M = male, GD = gender diverse.

Statistical Analysis

All statistical analyses were conducted using SPSS Version 25 for Windows and statistical significance was set at $p < .05$. The data for participants' dichotomous verdict was analysed using a Chi-square test. The remaining dependent variables were subjected to separate 2 (Judicial Instruction Condition) \times 2 (Verdict: Guilty, Not Guilty) analyses of

variance (ANOVA). Any significant effects were examined using the Bonferroni correction for pairwise-comparisons.

Verdict Rendered

At the beginning of the verbal interview, participants were asked to indicate whether they rendered a Guilty or Not Guilty verdict to the allegation that Arthur Young sexually violated Charlotte Brown. As shown in Figure 1, when participants did not receive judicial instructions, they were equally likely to render a guilty or not guilty verdict. In contrast, when they received judicial instructions, this pattern changed. Mock jurors who received the memory-focused judicial instruction (Yes condition) were significantly less likely to render a Guilty verdict than were mock jurors who did not receive the judicial instruction (No condition), $\chi^2(1, N = 60) = 4.44, p = .03, w = .27$.

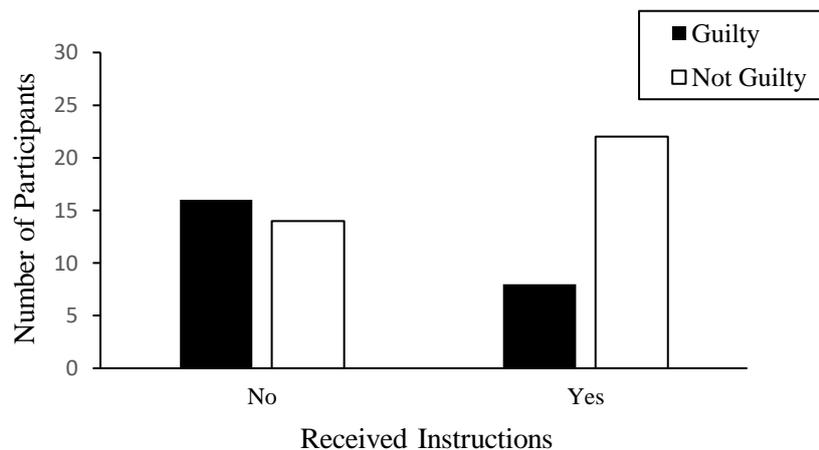


Figure 1. The number of participants who found the defendant guilty or not guilty of the allegation as a function of judicial instruction condition (No, Yes).

Guilt Rating

Next, participants' guilt ratings were examined using the continuous scale from 0% (Not at all Guilty) to 100% (Definitely Guilty). Figure 2 shows that regardless of judicial instruction condition, participants who rendered a guilty verdict assigned higher guilt ratings to the defendant ($M = 74.63, SE = 5.04$) than did participants who rendered a not guilty

verdict ($M = 30.62$, $SE = 3.98$), $F(1, 56) = 46.99$, $p < .01$, $\eta_p^2 = .46$. There were no other effects (largest $F = 0.05$, $p = .82$).

I also conducted a series of one-sample t -tests to compare participants' guilt ratings against a hypothetical no difference in guilt rating of 50%. Regardless of judicial instruction condition, participants who rendered a guilty verdict rated the defendant's guilt significantly greater than 50% and participants who rendered a not guilty verdict rated the defendant's guilt significantly less than 50% (all p 's $< .01$).

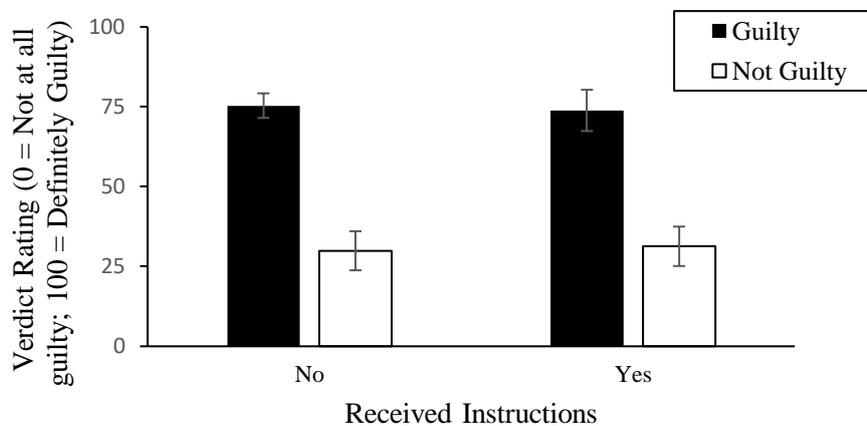


Figure 2. Participants' mean guilt ratings as a function of judicial instruction condition (No, Yes) and verdict (guilty, not guilty). Error bars reflect standard errors of the means.

Believability Ratings

Recall that participants were asked to rate the believability of each of the witnesses using a scale from 1 (Not at all Believable) to 7 (Extremely Believable).

Complainant. As shown in Figure 3, participants who found the defendant guilty of the allegation gave higher believability ratings to the complainant ($M = 5.67$, $SE = 0.25$) than did participants who found the defendant not guilty ($M = 3.35$, $SE = 0.20$), $F(1, 56) = 54.44$, $p < .01$, $\eta_p^2 = .49$. There were no other effects (largest $F = 2.37$, $p = .94$).



Figure 3. Participants' mean believability ratings of the complainant's testimony as a function of judicial instruction condition (No, Yes) and verdict (guilty, not guilty). Error bars reflect standard errors of the means.

Defendant. As shown in Figure 4, participants who found the defendant guilty of the allegation gave significantly lower believability ratings to the defendant ($M = 3.66$, $SE = 0.28$) than did participants who found the defendant not guilty ($M = 5.05$, $SE = 0.22$), $F(1, 56) = 14.93$, $p < .01$, $\eta_p^2 = .21$. There were no other effects (largest $F = 2.05$, $p = .04$).

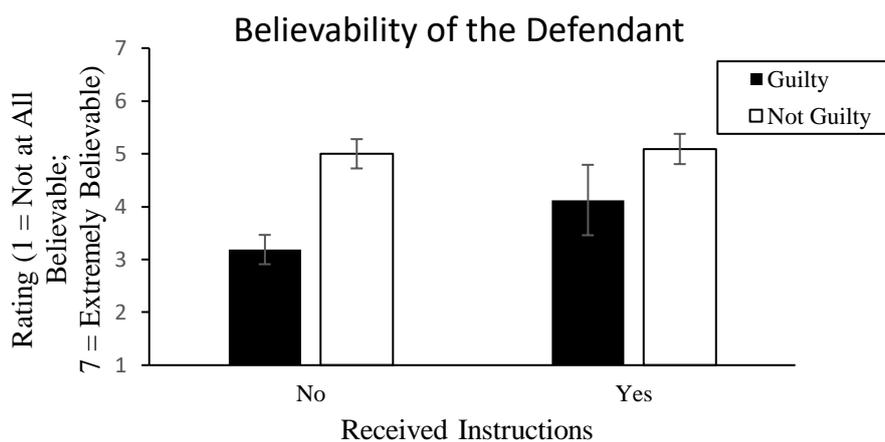


Figure 4. Participants' mean believability ratings of the defendant's testimony as a function of judicial instruction condition (No, Yes) and verdict (guilty, not guilty). Error bars reflect standard errors of the means.

Prosecution witness. As shown in Figure 5, participants who found the defendant guilty of the allegation gave higher believability ratings to the prosecution witness ($M = 4.88$, $SE = 0.29$) than did participants who found the defendant not guilty ($M = 4.03$, $SE = 0.23$), $F(1, 56) = 5.32$, $p = .03$, $p < .01$, $\eta_p^2 = .09$. There were no other effects (largest $F = 0.69$, $p = .09$).

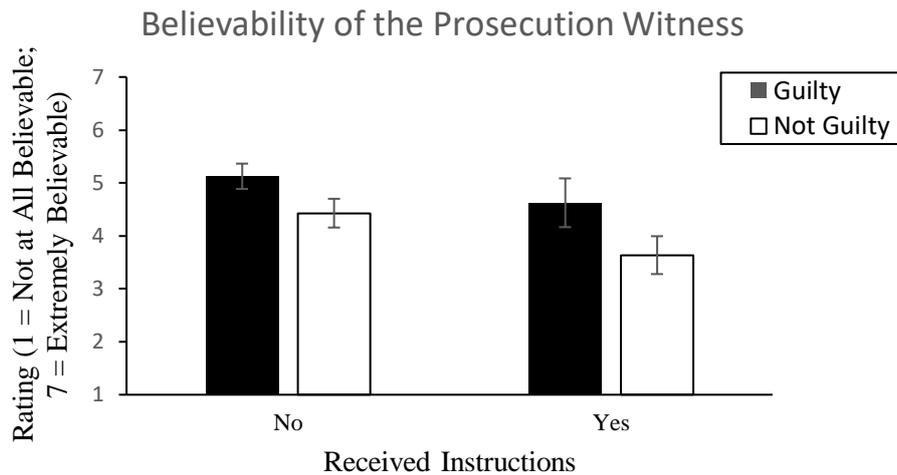


Figure 5. Participants' mean believability ratings of the prosecution witness' testimony as a function of judicial instruction condition (No, Yes) and verdict (guilty, not guilty). Error bars reflect standard errors of the means.

Defence witness. As shown in Figure 6, participants who found the defendant guilty of the allegation gave lower believability ratings to the defence witness ($M = 3.25$, $SE = 0.31$) than did participants who found the defendant not guilty ($M = 4.96$, $SE = 0.24$), $F(1, 56) = 19.15$, $p < .01$, $\eta_p^2 = .26$. There were no other effects (largest $F = 0.42$, $p = .26$).

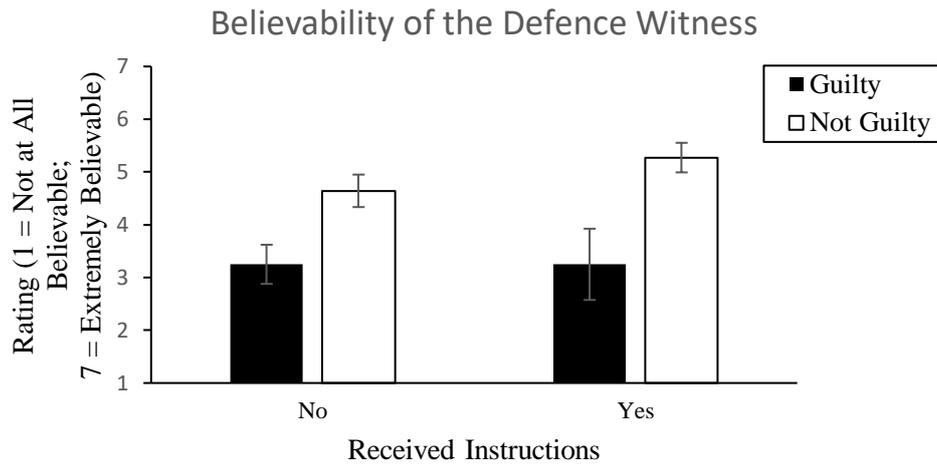


Figure 6. Participants' mean believability ratings of the defence witness' testimony as a function of judicial instruction condition (No, Yes) and verdict (guilty, not guilty). Error bars reflect standard errors of the means.

Verbal Interview

In the next part of the analysis, I examined participants' responses to the questions that I asked during the verbal interview. First, I examined participants' reasons for the verdict that they rendered to the allegation. Table 2 shows the frequency of each reason provided. Participants could provide more than one reason for the verdict that they rendered to the allegation; therefore, the frequency of reasons is higher than the number of participants. Overall, the most common reasons that participants provided were related to the personal attributes of the defendant.

Table 2.

Participants' reasons for the verdict that they rendered to the allegation.

	Yes - Guilty (n = 8)	Yes - Not Guilty (n = 22)	No – Guilty (n = 16)	No - Not Guilty (n = 14)
1. Memory-Related				
Complainant's memory for the events was unclear/inconsistent		12 (54%)		3 (15%)
Natural for memories for a historic event to be unclear/incomplete	2 (25%)		6 (37%)	
Traumatic events can influence memory		3 (14%)		
Total	2	15	6	3
2. Attributes of the complainant				
The complainant's story was believable	2 (25%)		4 (25%)	
Total	2		4	
3. Attributes of the defendant				
Not physically possible for the defendant to carry out alleged act		9 (40%)		12 (60%)
Defendant's testimony seemed premeditated	4 (50%)		11 (69%)	
The defendant's story was believable		2 (9%)		2 (10%)
Total	4	11	11	14
4. Legal process issues				
Lack of corroborating evidence		9 (40%)		2 (10%)
Total		9		2

Note. Yes = received judicial instruction, No = did not receive judicial instruction, , G = Guilty verdict rendered, NG = Not Guilty verdict rendered

Next, I examined participants' responses to the question about what additional evidence or testimony they thought that they would have needed to reach a different verdict. The most common additional evidence that participants indicated that they would have needed to reach a different verdict was memory-related. Sixteen mock jurors said they would have needed evidence from the lifeguards who worked at the pool at the time of the alleged event and 12 mock jurors would have needed evidence from the complainant's sister. Participants also talked about needing evidence from independent witnesses outside of the family, from the defendant's work colleagues, and from character witnesses.

I then examined participants' responses about what other information the judge or an expert witness could have provided during the trial that would have been helpful to them when considering their verdict. The majority of participants indicated that they did not know what kind of other information a judge could provide. A few participants mentioned that they would have liked research on how memory works, information about the mental health history of the complainant, and more information about how the pool operated; however, this is not information that a judge can usually provide. Not surprisingly, the most common responses about information that an expert witness could have provided were again related to memory. More specifically, 12 mock jurors indicated that they would have liked more information on how memory works and 11 mock jurors would have liked information on how trauma influences memory. Other responses included research on how children's memories work and child sexual assault.

Finally, I examined whether participants who received the judicial instructions found them useful and whether participants who did not receive the judicial instructions thought information about the effects of delay on memory would have been useful. Of the 18 participants in the judicial instruction condition who answered this question, 14 participants reported finding the information about the effects of delay on memory useful and 4

participants did not find them useful. Of the 20 participants in the no judicial instruction condition who answered, all 20 thought that information about the effects of delay on memory would have been useful.

Discussion

The main goal of the present study was to investigate the impact of judicial instructions on juror decision-making. Given that New Zealand has no statute of limitations, I was particularly interested in how judicial instructions regarding memory influence juror decision-making in cases of historic child sexual abuse. To do this, I investigated whether there were differences in verdicts between two conditions where mock jurors did or did not receive memory-focused judicial instructions. I also examined the content of discussion during a verbal interview to determine whether there were any differences in the factors that mock jurors considered to reach their verdict, and to determine any differences between the two judicial instruction conditions.

I found that fewer participants who received memory-focused judicial instructions found the defendant guilty than did participants who received no instructions at all. I also found that participants who rendered a guilty verdict were confident in their decision (i.e., participants' guilt ratings were significantly greater than 50%). Participants who rendered a not guilty verdict were also confident in their decision (i.e., participants' guilt ratings were significantly less than 50%). In both conditions, participants who found the defendant guilty of the allegation rated the complainant and the prosecution witness as more believable and participants who found the defendant not guilty rated the defendant and defence witness as more believable.

In the present study, judicial instructions did influence jurors' verdicts. This finding is similar to previous research on memory-focused judicial instructions in cases involving other kinds of crimes. For example, Papailiou et al. (2015) found that mock jurors who received instructions based on research on the issues of human memory rendered fewer guilty verdicts than did mock jurors who received the standard instructions. Even though the instructions used in the present study were much shorter and less comprehensive than the enhanced

instructions used by Papailiou et al., it appears that the instructions played a role in mock jurors' decision-making processes. It is possible that a summing up of memory-focused instructions is just as effective as longer, more detailed instructions.

In the present study, verdict significantly affected how believable participants found each of the four witnesses. Given that the outcomes of CSA cases rest heavily on the believability of the witnesses, it is reasonable to expect that one would find the complainant more believable if they found the defendant guilty (Lewis, 2006). Not surprisingly, participants who found the defendant guilty of the allegation rated the complainant and the prosecution witness as more believable. Participants who found the defendant not guilty rated the defendant and defence witness as more believable. These findings are consistent with several previous studies in which researchers have found that the less credible the complainant appears, the more likely it is that mock jurors will render a guilty verdict (e.g., Goodman-Delahunty et al., 2010; Kaufman et al., 2003). Although judicial instructions have been found to be beneficial in enhancing complainant believability in CSA cases, this was not the case in the present study. Judicial instructions did not affect whether participants found the complainant more or less believable. This finding stands in contrast to previous research findings. Goodman-Delahunty et al. (2010) for example, found that participants who received judicial instructions found the complainant more believable than did participants who received no judicial instructions. One potential explanation for the difference in findings between the current study and Goodman-Delahunty et al. relates to the characteristics of the complainant in the two studies. In the present study, for example, many participants stated that they thought the complainant and the prosecution witness had a lower level of intellect and social standing, compared to the defendant and defence witness. For example, one participant stated, *"I was thinking the husband and wife were really well schooled up. They had worked out exactly how it was going to work; with their level of intellect and their social*

standing. I think there's a whole bunch of factors that helped prepare them for giving evidence." Another participant stated, *"I think we do bring in all these stereotypes and judgements we have of different social class and SES, and if she came from an affluent family and her mother was more well-spoken, we would probably presume she was telling the truth."* Previous studies have illustrated that assessments of believability can be affected by intelligence and socioeconomic status. For example, Lees (2018) found that mock jurors perceived a victim of CSA with a high SES as more credible than a victim of CSA with a low SES. Furthermore, jurors who perceived the CSA victim as more credible were significantly more likely to render a guilty verdict.

Examination of the content of the group interviews provides some insight into the factors that may play a role in jurors' decision-making. The most common reasons that participants provided for reaching a not guilty verdict, across both judicial instruction conditions, were related to the attributes of the defendant. More specifically, many participants stated that they could not see how it was physically possible for the defendant to carry out the alleged act. One participant, for example, stated, while relating to their personal experiences *"from a practical point of view I just don't know how you would actually physically do what the complainant alleged. I've got a son and I carry him on my shoulders at the pool and have to balance him with two hands."* Another participant stated, *"I just didn't see how it was physically possible, like easily for it to have occurred without anybody noticing."*

Another reason that commonly came up for reaching a not guilty verdict were memory-related. Moreover, participants who received judicial instructions brought up these memory-related issues as a reason for reaching their verdict more often than did participants who did not receive judicial instructions. Thus, the judicial instructions about memory appeared to influence mock jurors' decision-making process. Many participants mentioned

that they thought the complainant's memory for the events was unclear and inconsistent and therefore less credible. For example, one participant stated, *"it seems like something easily could have happened but she's just completely misremembering it and so all the details she gives makes her sounds like she's not credible."* Previous studies have illustrated that credibility can impact outcomes of CSA trials. For example, Lewis et al. (2013) found that lower levels of credibility of the complainant were associated with shorter sentencing recommendations for the defendant.

Across both conditions, the majority of the participants who rendered a guilty verdict thought the defendant's testimony seemed premeditated and that the defendant and his wife's testimonies were too similar. One participant stated, *"I thought it was quite pointed when they talked to Arthur's wife and she could remember stuff in such good detail, and they were like are you sure you didn't discuss it with your husband to make this sound exactly identical."* Another participant stated, *"what they said it just didn't add up to me, why would you remember 26 years later, one visit to the swimming pool with a couple of kids, it just seemed odd that they would have a vivid memory."* Here, it appears that mock jurors judged the witnesses' memories as "too good" to be accurate.

Across both conditions, participants said that additional evidence, such as evidence from the complainants' sister and from the lifeguards who worked at the pool at the time of the alleged event would have influenced their verdicts; however, participants did acknowledge that this type of information would be difficult to obtain. Again, this type of information also relies on witnesses' memory for a historic event. Moreover, a handful of participants who found the defendant not guilty said that they believed something may have happened, but not in the way that the complainant had recalled it. These participants further mentioned that they would have liked further evidence and more witnesses in general, stating that there was not enough evidence to conclude that the defendant was guilty. Thus,

corroborating evidence was a concern for these jurors, in accordance with other research findings (e.g., Tabak & Klettke, 2014). Participants often questioned if they would have access to more evidence if they were in a real-life trial. One participant, for example, remarked that, *“based on the evidence I’ve read, I found him not guilty. There just isn’t enough evidence. If I were on the actual trial for this, I probably would have more information, I guess this transcript is only a part of it. I may have changed my verdict.”* Access to more information may not always be possible. In cases of historic child sexual assault, for instance, there is often already a lack of evidence and no physical evidence (Walsh, Jones, Cross & Lippert, 2010). These conditions have implications for real-life jurors, their decision-making process, and ultimately their verdicts.

Many participants did not know what kind of information a judge could provide. A few participants mentioned that they would have liked information about how memory works. Some even acknowledged that they knew that the judge cannot provide this information and suggested an expert witness could be more useful. A majority of the participants understood what an expert witness was but for those who did not know, the experimenter provided them with a brief explanation. Not surprisingly, when participants were asked about what information an expert witness could have provided that would have been useful, the most common responses were related to memory. This was true regardless of whether they had received judicial instructions about memory or not. One participant, for example, said, *“I think maybe a psychologist to explain how memory works because I found myself getting frustrated when the complainant was being interrogated...there seemed to be no understanding of how memory worked and that she may not necessarily be able to recall the details of what she is being asked to remember. I thought it would be helpful to have that explanation but that would probably more than anything, make me believe her story even more.”* A number of participants also mentioned that information from an expert on how

trauma influences memory would have been useful. One participant stated, *“It’s pretty tough, like all you could really do is have a psychologist come in and explain how trauma affects memories.”* In New Zealand, expert witnesses may be permitted to testify in court if their expert knowledge will assist the decision-makers in understanding the evidence in a case. There are four main rules of evidence for an expert witness. First, an expert witness must address the evidence within the expert’s area of expertise. Second, they must state the facts on which the opinions are based and the reasons. Third, they must specify literature in support of the opinions, and finally, an expert witness must describe any tests that they have relied on to form their opinion (High Court Rules, 2016).

More recently, psychological experts have begun used to testify in child sexual assault cases. Because there is usually little to no corroborating and physical evidence in CSA cases, an expert’s testimony can support the testimony as well as help the decision-makers understand the evidence (Gabora, Spanos, & Joab, 1993; Zajac, Garry, London, Goodyear-Smith, & Hayne, 2013). Research findings have suggested that expert testimony can impact jurors decision-making process. Klettke, Graesser, and Powell (2009) for instance, examined the impact of expert testimony on jurors’ decision-making processes in cases of CSA. Mock jurors read cases of CSA followed by expert testimony. Strength of evidence presented by the expert was manipulated by how much the evidence supported the case that the child was abused. In the condition of high strength of evidence, the expert referred to medical symptoms and matched these symptoms to CSA. In the condition of low strength of evidence, no physical evidence was presented and clinical symptoms were given an alternative explanation. After participants read the case, they then rated complainant credibility, guilt of the defendant, and the effectiveness of the expert testimony. Klettke et al. (2009) found that experts were effective and had an impact on juror decision-making when the testimony involved evidence high in strength or when the testimony was highly consistent.

Interestingly, the qualifications of the expert witness (clinical psychologist vs. counsellor) had no significant impact on jurors' decisions. Furthermore, both the credibility ratings of the defendant and the guilt ratings of the defendant were lower when both evidence strength and consistency were low. Taken together, the findings from the present research and that of previous studies suggest that an expert witness can influence jurors' decision-making processes. In future, it would be interesting to investigate whether information on memory-related issues would be more effectively presented by an expert witness compared to by a judge.

In the present research, participants who received the memory-focused judicial instructions did so after reading the evidence. One participant mentioned that if they had been able to read the instructions before reading the evidence it may have been more helpful in considering their verdict. Past research findings on the timing of presenting judicial instructions (i.e., before or after the evidence) in cases involving other kinds of crimes have been mixed. Some researchers have suggested that presenting instructions prior to evidence may influence jurors more than presenting instructions after the evidence (e.g., Ingriselli, 2015; Kassin & Wrightsman, 1979). Other researchers have found that the timing of instructions had no effect on jurors' verdicts (e.g., Cruse & Browne, 1987; Greene & Loftus, 1985). Currently, there has been no research on the effects of the timing of memory-focused instructions. Accordingly, future research on memory-focused instructions could investigate the timing of presenting the instructions.

A criticism of past research on juror decision-making has been that the majority of mock jury research findings are based on university students, and given the relative infrequency with which university students serve on actual juries, that the findings from these studies may be less generalisable to the population (Bornstein, 1999; Bray & Kerr, 1982). In the present study, I recruited a diverse sample of participants from the wider community,

therefore I am confident that my results are generalisable to the wider population.

Nonetheless, it is important to note that the extent to which we could mimic the conditions that would naturally occur in an actual courtroom trial is limited, as with any jury simulation research. One key difference in the present study compared with actual jury trials and many mock jury simulations is the presentation of evidence. Participants in the present study read a written transcript of the trial as opposed to viewing videotaped testimony or listening to audiotaped testimony. Compared videotaped or audiotaped testimony, there is no display of emotion and body language in written testimony. Some participants mentioned that their judgments and verdicts may have been different if they were able to see a videotaped or audiotaped trial, as opposed to reading a written transcript. One participant expressed that seeing witnesses' body language and emotional responses is a factor that would play a role in their decision-making process: *"I think witnessing their testimonies in person would be a big factor for me as well because I'm a firm believer in body language and presentation of someone's character when delivering a statement, people have tells and that kind of thing."* Research findings have illustrated that emotions play a role in determining credibility, which can impact outcomes of CSA trials. For example, Kaufmann et al. (2003) found that credibility ratings were reduced when the victim displayed emotions which were neutral or incongruent to emotions expected of a sexual assault victim. Accordingly, it would be important for future researchers to investigate memory-focused instructions in CSA trials presented via videotape.

Although the present findings allow us to draw some important conclusions about the effect of judicial instructions on juror decision-making in HCSA cases, the study has its limitations. First, the sample size in the present study was relatively small, with a total of 60 participants and thus the external validity of the findings of the present study may have been reduced. A second limitation of the present study was that mock jurors were required to make

decisions and render a verdict individually. In real jury trials, decisions are made as part of a group. Research has shown that people make decisions differently as individuals compared to when they are in a group (Bornstein & Greene, 2011). Although in the present study, jurors were able to discuss their reasoning for their decision with the group, their individual verdicts were rendered prior to the group interview – and it was these verdicts that I considered in the analyses. In future research, it would be interesting to investigate individual verdicts as well as group verdicts, post-group interview. Furthermore, it was difficult to obtain an explicit answer from a handful of participants when I asked them whether they found the memory-focused instructions useful. While a majority of the participants who received the memory-focused instructions reported that they did find them useful, there were a handful of participants who did not answer. It is possible that this was due to the nature of the group setting. In future this question may be more effective when asked individually on a paper questionnaire.

Conclusion

This study was motivated by issues surrounding memory and the limited research in the area of memory-focused judicial instructions. Overall, the findings of the present study suggest that memory-focused judicial instructions can influence juror decision-making in HCSA cases. The present study has implications for future mock jury research and the New Zealand legal system. In New Zealand, cases of HCSA are relatively common, raising memory-related issues not only for the witnesses but also the juror. Providing memory-focused judicial instructions is one way the Court can help jurors make their decisions. The research on the influence of memory-focused instructions on juror decision-making is currently limited, particularly in cases related to HCSA. The findings of the present study provides a new insight into how the New Zealand legal system could consider using memory-

focused instructions to establish more rigorous courtroom procedures when it comes to cases where a complainant's memory is the main source of evidence.

References

- Benton, T. R., Ross, D. F., Bradshaw, E., Thomas, W. N., & Bradshaw, G. S. (2006). Eyewitness memory is still not common sense: Comparing jurors, judges and law enforcement to eyewitness experts. *Applied Cognitive Psychology, 20*, 115-129. <https://doi.org/10.1002/acp.1171>
- Bornstein, B. H. (1999). The ecological validity of jury simulations: Is the jury still out? *Law and Human Behavior, 23*, 75–91. <https://doi.org/10.1023/A:1022326807441>
- Bornstein, B. H., & Greene, E. (2011). Jury decision making: Implications for and from psychology. *Psychological Science, 20*, 63-67. <https://doi.org/10.1177/0963721410397282>
- Bornstein, B. H., & Hamm, J. A. (2012). Jury instruction on witness identification. *Court Review: The Journal of the American Judges Association, 48*(1), 48-53.
- Bray, R. M., & Kerr, N. L. (1982). Methodological considerations in the study of the psychology of the courtroom. In N. Kerr & R. Bray (Eds.), *The psychology of the courtroom* (pp. 287-323). New York, NY: Academic Press.
- Cicchini, M. D.; White, L. T. (2017). Testing the impact of criminal jury instructions on verdicts: Conceptual replication. *Columbia Law Review Online, 117*(2), 22-35.
- Coyle, I. R., & Thomson, D. M. (2014). Opening up a can of worms: How do decision-makers decide when witnesses are telling the truth? *Psychiatry, Psychology, and Law, 21*, 475-491. <https://doi.org/10.1080/13218719.2013.837803>
- Cruse, D., & Browne, B. A. (1987). Reasoning in a jury trial: The influence of instructions. *The Journal of General Psychology, 114*, 129-133. <https://doi.org/10.1080/00221309.1987.9711063>

Cutler, B. L., Penrod, S. D., & Dexter, H. R. (1989). The eyewitness, the expert psychologist, and the jury. *Law and Human Behavior*, *13*(3), 311–332.

<https://doi.org/10.1007/BF01067032>

DH v R [2015] NZSC 35.

Eastwood, J., & Caldwell, J. (2015). Educating jurors about forensic evidence: Using an expert witness and judicial instructions to mitigate the impact of invalid forensic scene testimony. *Journal of Forensic Science*, *60*, 1523-1528. <https://doi.org/10.1111/1556-4029.12832>.

Elwork, A., Sales, B. D., & Alfini, J. J. (1977). Juridic decisions: In ignorance of the law or in light of it? *Law and Human Behavior*, *1*, 163-189.

<https://doi.org/10.1007/bf01053437>

Evidence Act, New Zealand Statutes. (2006). Retrieved from

<http://www.legislation.govt.nz/act/public/2006/0069/latest/whole.html>

Fanslow, J. L., Robinson, E. M., Crengle, S., & Perese, L. (2007). Prevalence of child sexual abuse reported by a cross-sectional sample of New Zealand women. *Child Abuse & Neglect*, *31*, 935–945. <https://doi.org/10.1016/j.chiabu.2007.02.009>

Fergusson, D. M., Boden, J. M., & Horwood, L. J. (2008). Exposure to childhood sexual and physical abuse and adjustment in early adulthood. *Child Abuse & Neglect*, *32*, 607–619. <https://doi.org/10.1016/j.chiabu.2006.12.018>

Flatman, G., & Bagaric, M. (1998). Problems in prosecuting cases involving historical child sexual abuse: The Victorian experience. *Deakin Law Review*, *4*(1), 1-20.

Gabora, N. J., Spanos, N. P., & Joab, A. (1993). The effects of complainant age and expert psychological testimony in a simulated child sexual abuse trial. *Law and Human Behavior*, *17*(1), 103–119.

- Gerdy, K. B. (2000). What is the difference between substantive and procedural law? And how do I research procedure? *Perspectives: Teaching Legal Research and Writing*, 9. Retrieved from <https://info.legalsolutions.thomsonreuters.com/pdf/perspec/2000-fall/2000-fall-3.pdf>
- Golding, J. M., Segó, S. A., Sanchez, R. P., & Hasemann, D. (1995). Believability of repressed memories vignettes. *PsycTESTS Dataset*, 19, 569-592. <https://doi.org/10.1037/t38113-000>
- Goodman-Delahunty, J., Cossins, A., & O'Brien, K. (2010). Enhancing the credibility of complainants in child sexual assault trials: The effect of expert evidence and judicial directions. *Behavioral Sciences & the Law*, 28, 769–783. <https://doi.org/10.1002/bsl.936>
- Greene, E., & Loftus, E. F. (1985). When crimes are joined at trial. *Law and Human Behavior*, 9, 193-207. <https://doi.org/10.1007/bf01067051>
- Hans, V. P., & Brooks, N. (1977). Effects of corroboration instructions in a rape case on experimental juries. *Osgoode Hall Law Journal*, 15(3), 701–716.
- High Court Rules (2016). Code of conduct for expert witnesses. (2006). Retrieved from <http://www.legislation.govt.nz/regulation/public/2016/0225/latest/DLM6953324.html>
- Howe, M. L. (2013). Memory development: Implications for adults recalling childhood experiences in the courtroom. *Nature Reviews Neuroscience*, 14, 869-876. <https://doi.org/10.1038/nrn3627>
- Ingriselli, E. (2015). Mitigating jurors' racial biases: The effects of content and timing of jury instructions. *The Yale Law Journal*, 124(5), 1690-1745.
- Innocence Project (n.d.). *Help us put an end to wrongful ...* Retrieved from <http://www.innocenceproject.org/>

- Jones, A. M., Bergold, A. N., Dillon, M. K., & Penrod, S. D. (2017). Comparing the effectiveness of Henderson instructions and expert testimony: Which safeguard improves jurors' evaluations of eyewitness evidence? *Journal of Experimental Criminology*, *13*, 29–52. <https://doi.org/10.1007/s11292-016-9279-6>
- Kassin, S. M., & Wrightsman, L. S. (1979). On the requirements of proof: The timing of judicial instruction and mock juror verdicts. *Journal of Personality and Social Psychology*, *37*, 1877-1887. doi:10.1037//0022-3514.37.10.1877
- Kassin, S. M., & Wrightsman, L. S. (1981). Coerced confessions, judicial instruction, and mock juror verdicts. *Journal of Applied Social Psychology*, *11*, 489–506. <https://doi.org/10.1111/j.1559-1816.1981.tb00838.x>
- Katzev, R.D., & Wishart, S.S. (1985). The impact of judicial commentary concerning eyewitness identifications on jury decision making. *The Journal of Criminal Law & Criminology*, *76*(3), 733-745.
- Kaufmann, G., Drevland, G. C. B., Wessel, E., Overskeid, G., & Magnussen, S. (2003). The importance of being earnest: Displayed emotions and witness credibility. *Applied Cognitive Psychology*, *17*, 21–34. <https://doi.org/10.1002/acp.842>
- Klettke, B., Graesser, A. C., & Powell, M. B. (2009). Expert testimony in child sexual abuse cases: The effects of evidence, coherence and credentials on juror decision making. *Applied Cognitive Psychology*, *24*(4), 481-494. <https://doi.org/10.1002/acp.1565>
- Kurinec, C. A., & Weaver, C. A., III. (2018). Do memory-focused jury instructions moderate the influence of eyewitness word choice? *Applied Psychology in Criminal Justice*, *14*(1), 55–69.
- Lees, Y. (2018). Do you believe?: The effects of child witness age and background on the credibility of child sexual exploitation cases. (Unpublished undergraduate

- dissertation). Manchester Metropolitan University, Manchester, England. Retrieved from <https://e-space.mmu.ac.uk/621696/>
- Lewis, P. (2006). *Delayed prosecution for childhood sexual abuse*. New York: Oxford University Press.
- Lewis, T., Klettke, B., & Day, A. (2013). Sentencing in child sexual assault cases: Factors influencing judicial decision-making. *Journal of Sexual Aggression, 20*, 281–295. <https://doi.org/10.1080/13552600.2013.804603>
- London, K., Bruck, M., Ceci, S. J., & Shuman, D. W. (2005). Disclosure of child sexual abuse: What does the research tell us about the ways that children tell? *Psychology, Public Policy, and Law, 11*(1), 194–226.
- Lynn, S. J., Evans, J., Laurence, J., & Lilienfeld, S. O. (2015). What do people believe about memory? Implications for the science and pseudoscience of clinical practice. *The Canadian Journal of Psychiatry, 60*, 541-547. <https://doi.org/10.1177/070674371506001204>
- Magnussen, S., & Melinder, A. (2011). What psychologists know and believe about memory: A survey of practitioners. *Applied Cognitive Psychology, 26*, 54-60. <https://doi.org/10.1002/acp.1795>
- McKimmie, B. M., Antrobus, E., & Baguley, C. (2014). Objective and subjective comprehension of jury instructions in criminal trials. *New Criminal Law Review, 17*, 163-183. <https://doi.org/10.1525/nclr.2014.17.2.163>
- New Jersey Supreme Court. (2012). Supreme Court releases eyewitness identification criteria for criminal cases [Press release]. Retrieved from <https://www.njcourts.gov/pressrel/2012/pr120719a.pdf>

- New Zealand Law Commission (2012). The justice response to victims of sexual abuse.
Retrieved from <http://r136.publications.lawcom.govt.nz/uploads/NZLC-R136-The-Justice-Response-to-Victims-of-Sexual-Violence.pdf>
- Nikonova, O., & Ogloff, J. R. P. (2005). Mock jurors perceptions of child witnesses: The impact of judicial warning. *Canadian Journal of Behavioural Science/Revue Canadienne Des Sciences Du Comportement*, 37, 1–19.
<https://doi.org/10.1037/h0087241>
- Paglia, A., & Schuller, R. A. (1998). Jurors' use of hearsay evidence: The effects of type and timing of instructions. *Law and Human Behavior*, 22, 501-518.
<https://doi.org/10.1023/a:1025735313134>
- Papailiou, A. P., Yokum, D. V. & Robertson, C. T. (2015). The novel New Jersey eyewitness instruction induces skepticism but not sensitivity. *PLoS ONE*, 10: e0142695.
<https://doi:10.1371/journal.pone.0142695>
- Poveda, T. G. (2001). Estimating wrongful convictions. *Justice Quarterly*, 18, 689-708.
<https://doi.org/10.1080/07418820100095061>
- Pozzulo, J. D., Dempsey, J. L., & Crescini, C. (2010). Factors affecting juror decisions in historic child sexual abuse cases involving continuous memories. *Criminal Justice and Behavior*, 37, 951–964. <https://doi.org/10.1177/0093854810373587>
- Reifman, A., Gusick, S. M., & Ellsworth, P. C. (1992). Real jurors understanding of the law in real cases. *Law and Human Behavior*, 16, 539-554.
<https://doi.org/10.1007/bf01044622>
- Simons, D. J., & Chabris, C. F. (2011). What people believe about how memory works: A representative survey of the U.S. population. *PLoS ONE*, 6, e22757.
<https://doi.org/10.1371/journal.pone.0022757>

- Statistics New Zealand. (2018). *Criminal conviction and sentencing statistics: 2017 calendar year*. Retrieved from <https://www.stats.govt.nz/information-releases/criminal-conviction-and-sentencing-statistics-2017-calendar-year-nz-stat-tables>
- Tabak, S. J., & Klettke, B. (2014). Mock jury attitudes towards credibility, age, and guilt in a fictional child sexual assault scenario. *Australian Journal of Psychology*, *66*, 47-55.
<https://doi.org/10.1111/ajpy.12035>
- Tanford, J. A. (1990). The law and psychology of jury instructions. *Nebraska Law Review*, *69*(1), 72-110.
- Trimboli, L. (2008). Juror understanding of judicial instructions in criminal trials. *Crime and justice bulletin no 119: Contemporary issues in crime and justice*. Sydney: NSW Bureau of Crime Statistics and Research. Retrieved from
<https://www.bocsar.nsw.gov.au/Documents/CJB/cjb119.pdf>
- Walsh, W. A., Jones, L. M., Cross, T. P., & Lippert, T. (2008). Prosecuting Child Sexual Abuse. *Crime & Delinquency*, *56*(3), 436–454.
- Wise, R.A., Sartori, G., Magnussen, S., & Safer, M.A. (2014). An examination of the causes and solutions to eyewitness error. *Frontiers in Psychiatry*, *5*, 1-8.
<https://doi.org/10.3389/fpsy.2014.00102>
- Zajac, R., Garry, M., London, K., Goodyear-Smith, F., & Hayne, H. (2013). Misconceptions about childhood sexual abuse and child witnesses: Implications for psychological experts in the courtroom. *Memory*, *21*(5), 608–617.
- Zalman, M. (2013). Wrongful convictions. *The encyclopedia of criminology and criminal justice*, (pp.1-6). <https://doi.org/10.1002/9781118517383.wbeccj160>

Zdrok, V. A., Bersoff D. N., (2003). The effect of judicial instructions on jury consideration of defendant's refusal to testify. (Unpublished master's thesis). Drexel University, Philadelphia, PA. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.584.4272&rep=rep1&type=pdf>

Appendix A



D19/110

Academic Services
Manager, Academic Committees, Mr Gary Witte

18 April 2019

Dr J Gross
Department of Psychology
Division of Sciences
Union Place East/Leith Walk

Dear Dr Gross,

I am writing to confirm for you the status of your proposal entitled “**The Effect of Judicial Instructions on Juror Decision-Making**”, which was originally received on April 12, 2019. The Human Ethics Committee’s reference number for this proposal is **D19/110**.

The above application was Category B and had therefore been considered within the Department or School. The outcome was subsequently reviewed by the University of Otago Human Ethics Committee. The outcome of that consideration was that the proposal was approved.

Approval is for up to three years from the date of HOD approval. If this project has not been completed within three years of this date, re-approval must be requested. If the nature, consent, location, procedures or personnel of your approved application change, please advise me in writing.

Yours sincerely,



Mr Gary Witte
Manager, Academic Committees
Tel: 479 8256
Email: gary.witte@otago.ac.nz

Appendix B

Demographic Questionnaire

1. Your Age in years: _____

Please circle your answer for each of the following questions:

2. Your Gender:

- a. Female
- b. Male
- c. Gender Diverse

3. Your Ethnicity (Race):

- a. New Zealand European
- b. Māori
- c. Samoan
- d. Cook Island Māori
- e. Tongan
- f. Niuean
- g. Chinese
- h. Indian
- i. Other, please state your ethnicity: _____

4. Your Highest Level of Qualification:

- a. NCEA Level 1
- b. NCEA Level 2
- c. NCEA Level 3
- d. Bachelor's Degree or Level 7 qualification
- e. Bachelor Honours Degree or Postgraduate Diploma
- f. Master's degree
- g. PhD
- h. Other, please state your qualification: _____

Appendix D

Verbal Interview³

Thanks for completing the questionnaire. Now I want to talk about the factors that you considered to reach your verdict.

1. Who found Arthur Young Guilty? Who found him Not Guilty?
2. For those of you who found him Guilty, why did you reach that verdict? For those of you who found him Not Guilty, why did you reach that verdict?
3. What additional evidence or testimony do you think that you would have needed to reach a different verdict?
4. Is there any information that the judge could have provided during the trial that would have been helpful to you when considering your verdict? *[Is there any other information that the judge could have provided during the trial that would have been helpful to you when considering your verdict?]*
5. Is there any information that an expert witness could have provided during the trial that would have been helpful to you when considering your verdict?
6. Do you think that information about the effects of delay on memory would be useful? *[Was the information about the effects of delay on memory useful?]*

³ The questions in italics are the versions that participants in the Memory Instruction group were asked.