Understanding How Undergraduate Students and Seniors Perceive Jury Duty and Child Witnesses

by

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Abstract

Seniors represent an important group of potential jurors; however, there is little research examining their perceptions of jury duty and their jury behaviours. The present study examined seniors as jurors to investigate how they respond to calls for jury duty (i.e., their willingness) and whether they are capable jurors in terms of detecting dishonest testimony (i.e., their ability). Specifically, we examined the influence of the senior opt-out law (that allows seniors to opt-out of jury duty) on seniors' perceptions of jury duty, as well as seniors' ability to distinguish between true and false testimonies from child witnesses. An undergraduate sample was used as a comparison group. From responses on a jury duty questionnaire, we found that informing senior participants about the senior opt-out law at the start of the study did not impact their desire to serve on a jury or their perception of their ability to be a juror. The majority of seniors responded that they would want to serve on a jury if given the opportunity. Further, seniors showed a significantly lower rate of agreement with the senior opt-out law compared to undergraduates. To assess juror perceptions of child witnesses, participants watched a series of eight child interview videos (four truth-tellers and four lie-tellers) and provided credibility assessments and lie-detection judgments. Results indicated that for both truth and lie-tellers, seniors provided significantly higher evaluations of children’s competence to testify, overall credibility, honesty, believability, and likeability compared to undergraduates. Although both groups were significantly above chance at detecting lies, seniors were significantly less accurate, were significantly more biased to trust children, and were significantly more confident in these decisions compared to undergraduates. Lastly, participants’ perceptions of their ability to serve as a juror was not related to subsequent lie-detection judgments. Results highlight the importance of continuing to incorporate seniors in the judicial system.
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Understanding How Undergraduate Students and Seniors Perceive Jury Duty and Child Witnesses

Throughout North America, the population of seniors (those over the age of 65) is growing faster than any other age group (Blowers, 2015; Brank, 2007; Flynn, 2000; Statistics Canada, 2011, 2016). Specifically, the number of people over the age of 65 is expected to double by the year 2030 as the baby-boomer generation continues to move into later adulthood (USDCESA, 2004). The increased number of seniors in the population increases the probability of seniors being represented as potential jury members (Brank, 2007). In addition to the increasing population of seniors, seniors are more willing to accommodate jury duty into their daily routine compared to younger age groups (Boatright, 2001). As such, seniors represent a promising and important group of potential jurors, yet research within the legal psychology field has widely neglected seniors and has largely examined the perspectives of potential young and middle-aged adult jurors. Given that seniors are a unique group of citizens who have different daily experiences than younger adults, can have different personality traits than younger adults (Donnellan & Lucas, 2008; McCrae et al., 1999), and can have different perspectives than younger adults (Brank, 2007; Clarke, Marshall, Ryff, & Rosenthal, 2000), it is imperative to examine seniors as a distinct group to provide a more comprehensive understanding of potential jury members.

Within the North American legal system, some civil and criminal trials can be decided by a jury. Jury duty is highly valued as large fines and criminal charges can be put in place for those who do not appear for jury selection or jury duty. Despite this, certain groups are offered the option to opt-out of jury duty. For example, in certain provinces and states throughout North America, seniors can opt-out of jury duty because of their age, and full-time students can opt-out of jury duty because of their educational commitment. Although there is a specific justification
included with the student opt-out law (that it would interfere with their educational commitment), there is no justification provided with the senior-opt law, beyond the fact that it is because of their age. Without a justification given for why being over a certain age allows individuals to opt-out of jury duty, these group members may attempt to justify why their age gives them permission to opt-out on their own terms, that may include negative appraisals of their capabilities. Given this distinct experience with the jury process, it is important to examine how seniors perceive jury duty and how they perceive this law.

Beyond initial attitudes towards jury service, a potentially rich area for research is how senior jurors perceive witnesses and whether their perception differs from that of other populations (e.g., young adults). Understanding perceptions of witnesses is crucial as jurors’ use of witness testimony can influence trial outcomes. Cases involving child witnesses are particularly important as a child’s testimony may be the only piece of evidence in a case (e.g., in child abuse cases). Historically, it was difficult and rare for children to testify in court because of the belief that children could not be reliable witnesses (Bala, Evans, & Bala, 2010; Bala, Ramakrishnan, Lindsay, & Lee, 2005). Over the past two decades, there has been an increase in children testifying as a result of greater awareness of child abuse and a surge of research outlining how we can treat child witnesses properly within the court system to obtain reliable evidence (Bala et al., 2005, 2010; Bruk, Ceci, & Hembrooke, 1998; Ross, Dunning, Toglia, & Ceci, 1990). Although many influential studies have helped us to understand child witnesses, these studies have all examined perceptions from potential young or middle-aged adult jurors; therefore, seniors’ perceptions of child witnesses remain unknown.

Given that the legal-psychology field has largely failed to examine seniors, a growing group of potential jury members, the present investigation examined seniors as jurors in respect
to their willingness to serve as jurors and their ability to do so. First, my thesis examined whether
the senior jury opt-out law influenced seniors’ perception of jury duty. Second, to examine juror
ability, my thesis assessed how potential senior jurors perceived and discriminated between
children’s truthful and dishonest testimonies. Finally, the relationship between one's perception
of jury duty and subsequent juror perceptions of children was examined. I will begin by
reviewing the relevant literature on the age-based jury opt-out laws and how aging stereotypes
may influence seniors’ self-perception of their role in juries. I will then discuss the extant
literature on seniors’ perceptions of adult witnesses before reviewing the literature examining
younger adult perceptions of child witness’ credibility and their ability to detect children’s lies.
By addressing these two areas of interest, I will shed light on seniors’ role in the judicial process
from the early stages where jury members are selected, to the final stages where seated jury
members view witness testimony, as well as how they may be related to one another.

**Perceptions of Jury Duty**

Given the lack of research examining senior jurors, it is first important to understand how
seniors perceive jury duty, and how they believe they can contribute to a jury. Currently, in
approximately 60% of Canadian provinces and territories (see Appendix A for the opt-out laws
in place throughout Canada) and 40% of American states, those over the age of 65 (or 70 or 75 in
some areas) can opt-out of jury duty solely based on their age. Interestingly, there is no
justification provided along with this optional exemption, suggesting that individuals can
interpret why this exclusion exists on their own terms. Furthermore, this law is not consistently
in place in all jurisdictions in North America and there is no justification for why some areas
hold the law whereas others do not. Some researchers have argued that seniors may interpret this
option to opt-out as an implicit request that they are not wanted on the jury, perhaps because of
negative aging stereotypes (Brank, 2007; Entzel, Dunlop, & Rothman, 2000; Rothman, Dunlop, & Hirt, 2000). If this is in fact true, then these laws could be reinforcing negative aging stereotypes and lowering seniors’ belief in their competency to contribute to a jury, which could in turn discourage them from participating in jury duty. Based on the unique perspective that seniors may bring to the jury, it would be problematic if these laws are hindering seniors’ beliefs in their juror abilities.

Despite the mention of these laws in various papers examining jurors (Brank, 2007; Entzel et al., 2000; Higgins, Heath, & Grannemann, 2007; Rothman et al., 2000), no research has experimentally examined the impact that this law may have on seniors’ perceptions of jury duty, and no studies have directly asked seniors for their opinion on this law. To my knowledge, a proposal developed (and submitted to the Florida courts) by Dunlop and Collett in 1999 is the only work that has examined and attempted to reform these laws. Dunlop and Collett argued that jury service is a privilege and advocated that the Florida Legislature should remove these age-based opt-out laws, or at least increase them to a later age, such as 85 (the age-based jury opt-out law in Florida is for those over the age of 70). The option of increasing the age has also been acknowledged in jury research (e.g., Brank, 2007) as the average lifespan is longer compared to when the laws were initiated (National Center for Health Statistics, 2005). Dunlop and Collett recommended their policy changes after interviewing seniors in Florida who did ($M_{age} = 66.5$) and did not ($M_{age} = 74.3$) report for jury duty. Those who opted-out most frequently used their age and their health as their reasoning, yet only approximately 24% of them indicated an actual physical health concern that would prevent them from serving on a jury. Thus, seniors’ reasoning for opting out of jury duty could be based on other factors, such as a lack of self-efficacy and an internalization of the belief that seniors are not fit to serve on a jury. This research provided a
starting point to address this issue, yet no additional research has examined the influence of these laws, and the opt-out age remains at 70 years old in Florida with similar laws throughout North America. As such, we need to better understand if seniors approve of this law and we need to uncover if presenting seniors with age-based opt-out laws influences their self-efficacy, perhaps through internalizing negative aging stereotypes.

The implications from internalizing negative stereotypes are well-documented within the aging literature. Negative aging stereotypes within North America tend to center around seniors being ill, frail, and dependent, with poor cognitive and physical functioning (Dionigi, 2015). Physical and cognitive decline can, in part, be explained by physiological factors; however, research indicates that these declines are also influenced by psychological and social factors (Dionigi, 2015; Hess, Auman, Colcombe, & Rahhal, 2003; Horton, Baker, Pearce, & Deakin, 2008). Previous research has found that when older adults internalize negative stereotypes, their overall health decreases (Levy, Slade, & Gill, 2006; Levy, Slade, Kunkel, & Kasl, 2002), and their perception of their skills and their actual performance on a given task decreases (e.g., Chasteen, Pichora-Fuller, Dupuis, Smith, & Singh, 2015; Hess et al., 2003). Thus, negative stereotypes can have a significant impact on perceptions and behaviours.

Stereotype threat is a widely recognized perspective to examine and explain the effects of aging stereotypes. This framework suggests that individuals feel threatened when they are concerned about behaving in a way that aligns with a given stereotype, that can increase their anxiety and decrease their motivation, and can result in behaviour that aligns with the stereotype (Dionigi, 2015; Hess et al., 2003; Steele, 1997; Steele, Spencer, & Aronson, 2002). For example, Hess and colleagues (2003) reported that seniors showed poorer memory performance after reading negative information on seniors’ memory compared to seniors who read positive
information. This was especially true for those who indicated that memory was an important skill to them. From a stereotype threat perspective, the seniors who read the negative information may have been more nervous and/or had lower expectations for themselves, that then decreased their ability to use effective strategies and resulted in lower memory performance, aligning with the stereotype. Given that negative stereotypes about aging can have real life implications on seniors’ perceptions and abilities, it could be that the senior jury opt-out law reinforces negative stereotypes that decreases seniors’ perception of their jury skills and their actual behaviours if on a jury. Thus, the first purpose of the current thesis is to examine how seniors’ perceptions of their capability to serve as jury members may change as a function of being informed about the senior opt-out law, as well as uncover seniors’ direct opinions of the opt-out law.

**Juror Decision-Making**

Along with the need to understand how seniors perceive jury duty, it is important to examine how seniors perceive witnesses when they serve as jury members. No research to date has examined how seniors perceive child witnesses; however, a limited line of experimental research has compared younger adults’ and seniors’ juror decision-making in cases with adult witnesses (Fitzgerald, 2000; Higgins et al., 2007; Mossiere & Dalby, 2008). For example, in a mock-jury study, Higgins et al. (2007) found that older adults (55-90-years-old) viewed an adult defendant who attacked another man as more responsible for his behaviour and were more certain in their verdicts compared to younger adults. Similarly, Mossiere and Dalby (2008) demonstrated that although their older adult mock-jurors (46-60 years old) were less likely to find an adult perpetrator guilty compared to younger adults (18-25 years old), when older adults did render guilty verdicts they provided more severe and consistent sentencing decisions.
Although this study only examined participants up to age 60, their findings support the notion that juror attitudes and decisions can vary by age.

Furthermore, jury age is related to trial outcomes in real court cases. Anwar, Bayer, and Hjalmarsson (2014) examined data from over 700 felony trials in Florida between 2000 and 2010 and found that the likelihood of a jury convicting the defendant systematically increased as the average age of the jury increased. Specifically, when the average age of the jury was above 50 years old, defendants were convicted 79% of the time, compared to a 68% conviction rate when the average jury age was below 50 years old. These results show strong support for the notion that juror age can influence the outcome of a trial. In addition, during jury selection, it is legal for attorneys to use their peremptory challenges (the option to object to a member being chosen for the jury without providing an explanation) to exclude jurors based on age, with many attorneys acknowledging that this does commonly occur (Anwar et al., 2014; Baldus, Woodworth, Zuckerman, Weiner, & Broffit, 2001; Entzel et al., 2000). Baldus et al. (2001) examined peremptory challenges in Philadelphia county between 1981 and 1997 and reported that prosecutors were more likely to strike younger jurors whereas the defense was more likely to strike older jurors (classified as those over the age of 55). This suggests that attorneys use juror age strategically within the courtroom based on the trial outcome they are seeking.

Taken together, the outlined studies indicate that senior jurors can perceive witnesses and trial aspects differently than younger adults. However, the discussed research only addresses how perceptions of adult witnesses may differ in later adulthood. An examination on how perceptions of child witnesses may differ throughout adulthood is warranted.
Perceptions of Child Witnesses

Within the child witness literature, jurors’ perceptions of children have typically been examined from two perspectives: 1) adult perceptions of children’s credibility and 2) adults’ abilities to detect children’s lies. The credibility of a witness is an overall judgment that refers to the believability and plausibility of one’s testimony (Bala, Ramakrishnan, Lindsay, & Lee, 2005; Connolly, Price, Lavoie, & Gordon, 2008; Talwar, Lee, Bala, & Lindsay, 2006). Credibility judgments tend to be comprised of accuracy, honesty, confidence, memory (one’s willingness to admit when he or she does not remember something), and suggestibility (one’s acquiescence to misleading questions) ratings (Bala et al., 2005; Connolly et al., 2008; Talwar et al., 2006). Given that jurors are often tasked with assessing the credibility of a witness and their testimony, as well as determining if they believe the testimony to be true, these two streams of research provide a comprehensive understanding of how potential jurors perceive child witnesses.

Child Witnesses Credibility. A breadth of research has examined adult perceptions of child witness credibility (Bala et al., 2005; Bruck et al., 1998; Connolly, Price, Lavoie, & Gordon, 2008; Goodman, Golding, Helgeson, Haith, & Michelli, 1987; Leippe & Romanczyk, 1989; Ross, Jurden, Lindsay, & Keeney, 2003; Ross et al., 1990; Saykaly, Crossman, & Talwar, 2017; Talwar, Lee, Bala, & Lindsay, 2006). Historically, there have been widespread attitudes that children cannot be trusted to provide accurate testimonies (Leippe & Romancnczyk, 1987; Ross et al., 1990). For example, adult responses to a survey reported that less weight should be put on a child’s testimony, and that children are less cognitively competent and more susceptible to suggestions than adult witnesses (Ross et al., 1990). However, additional studies have found mixed results in terms of how adults perceive children’s credibility, with some reporting children to be perceived as less credible than adults (Goodman et al., 1987; Goodman & Michelli, 1981;
Goodman, Golding, & Haith, 1984; Leippe & Romanczyk, 1987), more credible than adults (Leippe & Romanczyk, 1989; Ross, Miller, & Moran, 1986), and just as credible (Johnson & Grisso, 1986; Luus, Wells, & Turtle, 1995; Ross, Miller, & Moran, 1986; Ross et al., 2003; Wells, Turtle, & Luus, 1989).

Amidst these inconsistencies, many studies have focused on a narrower model of credibility by looking specifically at honesty and cognitive competence (Bala et al., 2005; Connolly et al., 2008; Ross et al., 1990; Ross et al., 2003). This two-factor model of credibility helps to provide insight into the conflicting credibility findings discussed previously, as it could be that some cases relied more on the honesty of the witness whereas others relied more on one’s cognitive ability to provide a report on an event (Ross et al., 2003). For example, honesty tends to be more salient in child sexual abuse cases, as children lack the information to provide elaborate reports on sexual activity, whereas cognitive competence is more salient in cases relying on recall of specific information (e.g., witnessing an accident). Therefore, using this framework for credibility, it has been found that children (under 12 years of age) are perceived as more honest than adults when testifying about events such as abuse (Connolly et al., 2008; Masip, Garrsido, & Herror, 2004; Ross et al., 2003). On the other hand, children are seen as less accurate in their memories, less consistent, and more susceptible to misleading questions (Bala et al., 2005; Connolly et al., 2008). While extensive research has addressed how young and middle-aged adults perceive children’s credibility, no studies to date have examined seniors’ perceptions.

**Detecting Children’s Lies.** Although honesty perceptions are a component of credibility assessments, research within the lie-detection field more specifically examines individuals’ evaluations of whether a child’s testimony is truthful or dishonest. As with the credibility
literature, there has been no research examining seniors’ lie-detection of children’s reports. A larger body of research has found that young and middle-aged adults are consistently at, or just above, chance (50% accuracy rate) when detecting truths and lies in children (e.g., see Gongola, Scurich, & Quas, 2017 for a meta-analysis; Ekman, O’Sullivan, Friesen, & Scherer, 1991). Despite the rich literature examining younger adults’ abilities to detect children’s lies, a limitation in many detection studies is that participants are asked to detect children’s low-stake lies (e.g., denying a minor transgression). It may be easier for adults to detect children’s high-stake lies as children may experience greater cognitive demands from fear of consequences if their lie is detected. To examine this, Nysse-Carris, Bottoms, and Salerno (2011) examined adults’ abilities to detect children’s high-stake lies where parents broke a toy and instructed their child to keep it a secret, and found that adults’ detection performance was significantly greater than chance. This methodology is more comparable to potential cases involving child witnesses; however, children’s lies were simple denials of their parent’s transgression (yes or no responses). Child witnesses are often interviewed in a free-recall format; therefore, research assessing the detectability of children’s lies delivered in this format is needed. Upholding dishonest testimony through a free-recall narrative may place greater cognitive demands on children; however, the few studies that have examined adults’ abilities to detect children’s dishonest free-recall reports (e.g., Saykaly et al., 2013; Talwar et al., 2006; Wyman et al., 2017) did not find adults’ detection accuracy to be significantly greater than chance. One reason for this may be because children were telling low-stake lies such as reporting fabricated non-stressful events or events about a stranger’s transgression. Thus, although previous studies have enriched the lie-detection literature by addressing high-stake lies and lies told in free-recall interviews, no study to date has combined these two strategies to assess detection of children’s high-stake lies told in a free-recall
When children are personally involved in a more serious transgression and are interviewed utilizing a free-recall style, they may experience an even higher cognitive load as they are motivated to conceal the transgression for fear of consequences for the self (and any potential co-transgressor) if their dishonesty is detected. In the present thesis, we examined adults’ abilities to detect children’s coached lies to conceal a co-transgression with an adult confederate in a free-recall interview.

Beyond accuracy, biases play an important role in understanding lie-detection judgments. When making judgments about the veracity of a statement, one can tend to rate statements as honest (a truth bias) or dishonest (a lie bias). Generally, young and middle-aged adults hold a truth bias when rating the veracity of children’s statements (Chahal & Cassidy, 1995; Evans, Bender, & Lee, 2016; Stromwall & Granhag, 2005; Talwar, Renaud, & Conway, 2015; Wescott, Davies, & Clifford, 1991; but see Crossman & Lewis, 2006; Edelstein, Luten, Ekman, & Goodman, 2006; Masip et al., 2004). Given that interesting findings have come from research on younger adult lie-detection judgments, and that seniors can have different perspectives, an examination of seniors’ lie-detection judgments is needed for a more complete understanding of how (dis)honest children are perceived. Although seniors' detection of children's lies has not yet been examined, a small amount of work has examined seniors’ lie-detection of adult reports, finding that seniors are slightly less accurate than adults at detecting lies, in part because of lower emotion recognition abilities (Ekman & O’Sullivan, 1991; Ruffman, Murray, Halberstadt, & Vater, 2012; Stanley & Blanchard-Fields, 2008; Sweeney & Ceci, 2014; but see Bond, Thompson, & Malloy, 2005).

In addition to providing a novel examination of seniors' lie-detection of children's reports, it is important to examine potential individual differences that may influence lie-detection
judgments. One factor that has been frequently examined is the amount of experience the detector has with children. It has been proposed that increased experience with children may improve detection rates (e.g., Crossman & Lewis, 2006; Talwar, Crossman, Williams, & Muir, 2011). Support for this prediction has yielded mixed results within research performed on young and middle-aged adults. For example, parents who have extensive experience with children have not been consistently found to show superior accuracy rates (Chahal & Cassidy, 1995; Evans et al., 2016; Talwar & Lee, 2002), despite some research indicating that personal exposure to children can increase one’s accuracy (Crossman & Lewis, 2006; Talwar et al., 2011). Further, some research suggests that adults who do not work with children tend to hold a stronger lie bias, indicating that lack of exposure and experience with children may be related to a more stereotypical portrayal of children as unreliable and dishonest (Crossman & Lewis, 2006), whereas parents have been found to hold a truth bias (Evans et al., 2016; Talwar et al., 2015). It is important to further investigate this topic by examining if exposure to grandchildren impacts seniors’ accuracy and biases. For example, it could be that spending time with grandchildren does not increase seniors’ accuracy rates, but it could potentially impact their biases if personal exposure influences their overall perception of children’s behaviours. Such insight is important for fully understanding seniors as jury members as evaluating the veracity of testimony is a task that jurors often face.

The Present Study

The present investigation examined seniors’ perceptions of their ability to serve as jury members in comparison to younger adults (undergraduate students), and how both of these groups perceived potential child witnesses. Specifically, we examined whether informing participants (seniors and students) about their respective jury opt-out laws (stating that those over
65 can opt-out of jury duty for seniors or stating that students can opt-out of jury duty for undergraduate students) influenced their perceived ability to serve as a jury member. Further, this is the first study to directly ask seniors for their opinion on the opt-out law to help inform the role of the law in seniors’ lives. All participants completed a questionnaire on their perceived ability to serve as a jury member and on their opinion of the opt-out law (jury duty questionnaire). In addition, we assessed juror evaluations of child witnesses to examine if witness evaluations differ across younger and older adults. All participants provided credibility and lie-detection judgments of children after viewing a series of videos in which children either truthfully or dishonestly reported an event in an open-ended interview. Furthermore, to gain a sense of how students and seniors may perceive witnesses of various ages, participants were asked to rate the credibility of witnesses across the lifespan (from age 5 to over the age of 18). Lastly, as previous research has demonstrated a relationship between one’s perception of their skills and one’s performance on a given task (Chasteen et al., 2015; Hess et al., 2003), we investigated how one’s perception of their ability to serve as a capable juror may be related to their performance on a jury-relevant task, detecting dishonest testimony.

**Hypotheses**

The first goal of the present study was to examine how participants’ perceptions of jury duty may be influenced by knowledge of jury opt-out laws. Based on previous research that suggests the senior opt-out law is grounded upon and reinforces negative aging stereotypes (Entzel et al., 2000; Rothman et al., 2000), we predicted that seniors who were informed about this law at the start of the study (compared to those not informed) would report a lower desire to serve on a jury, lower self-perception of their ability to serve on a jury, lower lie-detection accuracy, and lower confidence in their lie-detection judgments of children. This would be
consistent with previous research demonstrating that the internalization of negative aging stereotypes lowers seniors’ self-perception and performance on tasks (Chasteen et al., 2015; Levy et al., 2002; Levy et al., 2006). In contrast, we predicted no difference in these ratings for undergraduate students who were informed about the student opt-out law compared to those not informed as the student law does not reinforce a negative stereotype. Further, we expected that seniors, overall, would report lower beliefs in their ability to contribute to a jury compared to undergraduate students because of the widespread negative aging stereotypes throughout North-America.

In addition to examining the impact of the opt-out laws on prospective senior and younger adult jurors, we examined participants’ direct opinions of the opt-out laws. Given that the laws may be based upon a negative view of aging (Entzel et al., 2000; Rothman et al., 2000), and that negative stereotypes of seniors are often present in younger groups (Dionigi, 2015), we predicted that undergraduate students would provide more positive evaluations of the senior opt-out law compared to seniors. No specific predictions were made for evaluations of the student opt-out law as this was used as a control to show that potential negative implications from the senior opt-out law are unique (and not applicable to additional opt-out laws).

The second goal of the present study was to compare seniors’ and undergraduate students' credibility and lie-detection judgments of children's reports. As there is no current research examining seniors’ credibility perceptions and honesty biases of children’s reports, our comparative analyses between seniors and undergraduate students were exploratory with no directional hypotheses. It could be that because of their later stage in life, seniors seek more positive attitudes and experiences (Luong, Charles, & Fingerman, 2011; Mather & Carstensen, 2005; Reed & Carstensen, 2012) and show greater sympathy towards children, resulting in
higher credibility ratings (from the video assessments and general lifespan credibility assessment) and honesty biases. On the other hand, given that seniors tend to be more conservative than younger adults (Anwar et al., 2014; Higgins et al., 2007), seniors may also hold more traditional views of children, such that children are not capable of providing accurate testimonies, thus reporting lower credibility ratings (from the video assessments and general lifespan credibility assessment) and a lie bias. For students, we expected to replicate previous research reporting that younger adults hold a truth bias for children (Chahal & Cassidy, 1995; Evans et al., 2016; Stromwall & Granhag, 2005; Talwar et al., 2015; Wescott et al., 1991).

In terms of lie-detection accuracy, we predicted that, on average, participants would not be significantly better than chance at detecting children’s lies, replicating previous research (Crossman & Lewis, 2006; Edelstein et al., 2006; Gomez-Garibello, Saykaly, Moore, & Talwar, 2013; Landstrom & Granhag, 2008; Leach, Talwar, Lee, Bala, & Lindsay, 2004; Masip et al., 2004). In addition, based on previous findings (Ekman & O’Sullivan, 1991; Ruffman et al., 2012; Stanley & Blanchard-Fields, 2008), we predicted that, overall, seniors would report lower lie-detection accuracy compared to undergraduate students.

We also examined individual differences (experience with 9-to 12-year-old children, having children and number of children, and having grandchildren and number of grandchildren) in relation to lie-detection judgments. Given the lack of consistent evidence for improved detection accuracy of parents (Chahal & Cassidy, 1995; Evans et al., 2016; Talwar & Lee, 2002), we predicted no significant differences in detection accuracy between those with different levels of experience with children. However, building upon research that found parents to hold stronger truth biases for their own and others’ children (Evans et al., 2016; Talwar et al., 2015), we predicted that participants with more experience with children would have a more favourable
perspective on children, resulting in stronger truth biases compared to those who have little or no recent experience engaging with children. Thus, experience with children may increase the bias in one’s responses without making one more skilled at discriminating between truthful and dishonest statements.

The final goal of the current investigation was to examine if one’s perception of their ability to contribute to a jury was related to one’s ability to detect children’s truthful and dishonest reports. Building upon research demonstrating a relationship between one’s perception of their skills and subsequent performance (Chasteen et al., 2015; Hess et al., 2003), we predicted that those who reported a lower belief in their ability to contribute as a juror would display lower detection accuracy and discrimination scores compared to those with higher self-perceived juror capability. Further, we expected a positive relationship between self-perceived juror capability and lie-detection confidence, such that those who were more confident in their juror capability would also report higher confidence in their lie-detection judgments.
Method

Participants

One-hundred undergraduate students ($M_{\text{age}} = 20.03$, $SD = 2.42$, range = 18-30, 30 males) and 100 seniors ($M_{\text{age}} = 73.41$, $SD = 4.72$, range = 66-to-89 years, 30 males) participated in this study. The ethnic breakdown of the student sample was: 79% Caucasian, 6% South Asian, 6% Latin American, 5% African-Canadian, 2% East Asian, 1% West Asian, and 1% mixed ethnicity. Ninety percent of students indicated that high school was their highest completed level of education, 9% had completed a college degree, and 1% had completed a postgraduate degree. The ethnic breakdown of the senior sample was: 98% Caucasian, 1% South Asian, and 1% did not report. For seniors, highest level of education and total household income were collected as indicators of socioeconomic status. Two percent of seniors did not complete high school, 25% completed high school, 38% completed college or university, and 35% completed a postgraduate degree. In addition, 11% of older adults had a total income under $25,000, 21% had an income between $25,000-to-$49,000, 47% had an income between $50,000-to-$99,000, and 19% had an income over $100,000 (2% of participants did not report income). When asked to rate one’s overall level of physical health, 21% of seniors reported excellent, 57% reported very good, 29% reported good, and 5% reported fair. Similarly, when asked to rate how active and engaged one is with their daily activities on a scale from 1 to 6 (higher scores indicated that one is more active and engaged), seniors reported a mean of 5.20 ($SD = 1.02$). Ninety-two percent of seniors were retired at the time of the study. Results from completing the Mini Mental State Exam indicated that all participants were cognitively healthy (i.e., did not show signs of dementia; Students: Mean = 29.38, $SD = .91$, range = 26-30; Seniors: Mean = 28.41, $SD = 1.38$, range = 23-30). No students had experience serving on a jury whereas 18% of seniors had previously served on a jury See Table 1 for the descriptive statistics for experience with children. Of note, seniors were
more likely to have their own children and grandchildren compared to undergraduate students; however, both groups had similar patterns of experience with children annually. Students could choose between receiving a research credit or $5, and all seniors were compensated with $5 for their participation. All participants gave informed consent prior to the study.

Table 1.

*Descriptive statistics for participants’ experience and exposure to children.*

<table>
<thead>
<tr>
<th>Experience with 9-to 12-year-olds</th>
<th>Students</th>
<th>Seniors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>16%</td>
<td>3%</td>
</tr>
<tr>
<td>Weekly</td>
<td>35%</td>
<td>27%</td>
</tr>
<tr>
<td>Monthly</td>
<td>25%</td>
<td>19%</td>
</tr>
<tr>
<td>2-11 times per year</td>
<td>19%</td>
<td>44%</td>
</tr>
<tr>
<td>1 or less than 1 time per year</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>Has children</td>
<td>1%</td>
<td>95%</td>
</tr>
<tr>
<td>Mean number of children (SD)</td>
<td>1 (0.0)</td>
<td>2.30 (1.06)</td>
</tr>
<tr>
<td>Has grandchildren</td>
<td>0%</td>
<td>84%</td>
</tr>
<tr>
<td>Mean number of grandchildren (SD)</td>
<td>--</td>
<td>3.78 (2.35)</td>
</tr>
</tbody>
</table>

*1The mean number of children and grandchildren was calculated only for those who had children or grandchildren.*

**Measures**

**Experimental Manipulation.** To assess whether being knowledgeable about the jury opt-out laws influenced participants’ responses, we manipulated between subjects whether participants were informed about their respective senior or student opt-out law. Specifically, at
the start of the study, participants in the experimental (informed) conditions responded to two questions where they were informed about the relevant jury opt-out law. Undergraduate students responded to the following questions, “Are you aware that in some provinces and states, those who are registered as full-time students can opt-out of jury duty based on their student status?” followed by, “Are you currently registered as a full-time student?” Similarly, seniors responded to the same two questions, modified for the relevant jury opt-out law as follows, “Are you aware that in some provinces and states, those age 65 years and older can opt-out of jury duty based on their age?” followed by, “Are you currently 65 years of age or older?” These questions were designed to inform participants about the option to opt-out of jury duty and encouraged participants to place themselves as part of the in-group to which the exclusion criterion applied. The opt-out laws were re-stated prior to the jury duty questionnaire. Participants in the control condition were not presented with these questions.

**Video Stimuli for Credibility and Honesty Judgments.** A total of eight child interviews ($M_{age} = 10.13, SD = .835, \text{ range} = 9 \text{ to } 11 \text{ years old, } 3 \text{ males}$) were selected as the stimuli for the present study. Video stimuli were from a prior study (Evans, Ahern, & Lyon, 2017) where children were interviewed about an interaction with a confederate. During the interaction with the confederate, all children played a computer game. Half of the children were randomly assigned to a transgression condition where the confederate convinced the child to play an alternative “forbidden” game (the Jewel Game) on the computer that resulted in the computer crashing and losing all of the data on the computer. The confederate then asked the child not to tell their boss (who would be asking the child about the game they played together) that they played the forbidden game. After the child agreed not to tell, the confederate coached the child on details to report from the game that they were supposed to have played (the Ball Game, e.g.,
“Just tell her that we played the ball game…say there were balls rolling across the screen…say there were birds”). The other half of the children were assigned to a control group in which they played the game that they were supposed to (the Ball Game) and the computer did not crash. All children were then interviewed by an experimenter (the boss) about what happened. The interviewer was blind to what condition (transgression or control) the child was assigned. After building rapport with the children, the interviewer asked a series of open-ended questions (e.g., “Tell me everything that happened while I was out of the room…What happened next?... You said [child’s statement], tell me more about [child’s statement] …Tell me everything you heard while I was gone… Tell me everything you saw on the computer while I was gone”). Videos were randomly selected based on condition (control vs. transgression), the veracity of the statement (truthful vs. dishonest), and matched for age and gender to the best of our ability. For the purpose of this study, participants were only shown the open-ended portion of the interview ($M_{length} = 3.47$ minutes). Four of the eight videos included children telling the truth about playing the Ball Game (control condition; $M_{age} = 10.25$, $SD = .957$, 1 male) and four included children lying about playing the Ball Game (transgression condition; $M_{age} = 10.00$, $SD = .817$, 2 males). There were no significant differences in the length of the interviews between truth and lie-tellers, $t(6) = .257, p = .806$.

**Child Credibility Questionnaire.** To assess participants’ credibility evaluations of the children in the videos, a 9-item credibility questionnaire was constructed based on previously used credibility measures (Connolly et al., 2008; Lieppe & Romanczyk, 1989; Ross et al., 2003; Talwar et al., 2006). Credibility ratings were assessed by tapping into seven specific credibility factors (honesty, accuracy, believability, consistency, suggestibility, confidence, and likeability), as well as overall credibility. Participants were also asked to rate how competent the child would
be to testify in court. Responses were given using a six-point Likert scale ranging from 1 (e.g., not at all credible; not at all accurate) to 6 (e.g., very credible; very accurate). Higher ratings depict greater credibility in all scales except for suggestibility, where higher scores indicate that children were rated as more suggestible. See Appendix B for the child credibility questionnaire.

**Lie-Detection.** To assess lie-detection judgments, a forced choice question (“Do you think the child was truthful or dishonest?”) was asked along with a confidence rating about this lie-detection judgment on a scale of 0 to 100 where higher scores indicated higher confidence. See Appendix C for the lie-detection questionnaire.

**General Lifespan Credibility Questionnaire.** To measure general perceptions of credibility across the lifespan (not specific to the videos shown), participants were asked to rate the credibility of the following age groups on a scale from 0 to 100: 5- to 7-year-olds, 8- to 10-year-olds, 11- to 12-year-olds, 13- to 17-year-olds, and adults over the age of 18. See Appendix D for the general lifespan credibility questionnaire.

**Jury Duty Questionnaire.** A 9-item questionnaire was used to measure participants’ perceptions of jury duty and senior jurors. Questions assessed if participants would want to serve on a jury, if they believe they would be competent jury members, and if they believe older adults are reliable jury members (e.g., “How capable do you think you are to serve as a jury member?”). Participants’ opinions of the jury opt-out laws were also evaluated (e.g., “Do you believe there should be a maximum age for potential jurors?”). See Appendix E for the full jury duty questionnaire.

**Demographic Questionnaire.** Participants responded to a set of questions about their own demographics including their age, sex, ethnicity, income, occupation, and physical health.
Experience with children was also assessed (e.g., “Do you have any children?”; see Appendix F for the demographic questionnaire).

**Mini Mental State Examination (Folstein, Folstein, & McHugh, 1975).** The Mini Mental State Examination (MMSE) was used to assess cognitive functioning. Specifically, it measures orientation (e.g., “What is today’s date?”), registration (e.g., “Please name these three objects”), attention and calculation (e.g., “Please spell the word ‘world’ backwards”), recall (e.g., “Please recall the three items I asked you to name earlier”), and language (e.g., “Please write a full sentence”). Scores can range from 0 to 30 with scores below 23 indicating potential cognitive impairment for those with at least a high school degree. Refer to Appendix G for the full examination and scoring.

**Procedure**

All participants completed the study in a research laboratory at Brock University. Surveys were completed either through the online Qualtrics survey platform or a paper and pencil version of the survey as some seniors preferred to respond to a paper questionnaire. For those completing the paper version of the questionnaire, the experimenter set up a laptop for them to watch the videos. Participants were randomly assigned to the control or informed condition.

Prior to commencing the study, participants read and signed the informed consent form (See Appendix H for ethics approval). Those in the informed condition first responded to the two experimental questions to induce the manipulation of being informed about the jury opt-out law. All participants were then instructed to begin the survey by watching the eight child interview videos and completing the corresponding questionnaires. Participants watched all eight videos
with the order of videos randomized between participants. Participants were told that in each interview, the child may or may not be telling the truth. After each of the first two videos (trial 1 and trial 2), participants were presented with the child credibility and lie-detection questionnaires. To reduce time demands and allow for enough trials to conduct signal detection analysis of lie-detection ratings, for the next six videos, participants only completed the lie-detection questionnaire (asking participants for a lie-detection judgment and confidence rating). As such, all participants completed credibility ratings for two videos and lie-detection ratings for all eight videos. The randomization of video presentation created four video order conditions for credibility evaluations: truth-truth, lie-lie, truth-lie, lie-truth. For example, in the truth-lie condition participants viewed a truthful video on the first trial followed by a dishonest video on the second trial. See Table 2 for a summary of the videos watched at trial 1 and trial 2 and how this differed by video condition.

Table 2.

<table>
<thead>
<tr>
<th>Video Condition</th>
<th>TRIAL 1</th>
<th>TRIAL 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First video watched</td>
<td>Second video watched</td>
</tr>
<tr>
<td>Truth-Truth</td>
<td>Truth</td>
<td>Truth</td>
</tr>
<tr>
<td>Lie-Lie</td>
<td>Lie</td>
<td>Lie</td>
</tr>
<tr>
<td>Truth-Lie</td>
<td>Truth</td>
<td>Lie</td>
</tr>
<tr>
<td>Lie-Truth</td>
<td>Lie</td>
<td>Truth</td>
</tr>
</tbody>
</table>

After evaluating all eight videos, participants completed the general credibility questionnaire to assess general beliefs of witness credibility (i.e., not specific to the videos shown) and whether this varied by age. Next, participants completed the jury duty questionnaire and demographic questionnaire. The final question in the jury duty questionnaire asked all participants if they were aware of the relevant jury exclusion law prior to the study. When
participants completed the questionnaires, the MMSE was administered. After the study was complete, the experimenter debriefed each participant and provided them with a debrief form indicating all jury opt-out laws in place across Canada. The sessions lasted for approximately 60-90 minutes.

Results

Response Distributions

All variables were fairly normally distributed with the exception of agreement ratings with the student opt-out law. Ratings for this law were negatively skewed such that the majority of participants held favourable views of this law. All analyses were conducted without excluding outliers (responses that were 1.5x bigger or smaller than the interquartile range) as outliers did not alter the pattern of results. Participants with missing data for a given measure were excluded from the corresponding analysis. However, there was minimal missing data as there were no more than four missing responses for any given analysis.

Perceptions of Jury Duty and Jury Duty Opt-Out Laws

First, to examine participants’ desire to serve on a jury, a binary logistic regression with age group (student vs. senior) and condition (informed vs. control) was conducted on participants’ desire to serve on a jury (0 = would not want to serve, 1 = would want to serve). Seniors were significantly more likely to state that they would want to serve on a jury within the next year (67%) compared to students (41%), $\chi^2(1, 200) = 13.40, p < .001$, odds ratio = 2.96, and, contrary to our prediction, this did not differ across condition ($p > .05$). To examine self-perceptions of jury duty capability, and whether being informed about the relevant jury duty opt-out law impacted this perception, a 2 (age group: student vs. senior) x 2 (condition: informed vs.
control) between-subject factorial ANOVA was performed on self-juror capability ratings. Contrary to our predictions, the ANOVA produced no significant main effects and no interaction ($ps > .05$), indicating that self-perceptions of jury duty capability did not differ across the two age groups or conditions (see Figure 1). However, as predicted, when asked to rate the capability of senior jurors (in general), seniors provided significantly higher ratings for seniors’ capability ($M = 4.98, SD = 1.07$) compared to students’ ratings for seniors’ capability ($M = 4.15, SD = 1.18$), $t(194.23) = 5.18, p < .001, d = 0.74$.

![Figure 1. Mean self-capability ratings to contribute to a jury as a function of age group and condition. The figure depicts the null effect of age and condition on self-juror-capability ratings. Error bars represent 95% confidence intervals.](image)

To examine participants’ attitudes towards the jury duty opt-out laws, 2 (age group: student vs. senior) x 2 (condition: informed vs. control) between-subject ANOVAs were performed on rates of agreement with each law (that students can opt-out of jury and that seniors can opt-out of jury). First, when evaluating the student opt-out law, there were no significant main effects or interaction ($ps > .05$), indicating that, as expected, perceptions of the student opt-
out law did not differ across age group or condition. Next, when evaluating the senior opt-out law, there was a significant main effect of age group, $F(1,196) = 22.21, p < .001, \eta^2_p = .102$, such that, as predicted, seniors held significantly less favourable attitudes towards the senior opt-out law ($M = 3.70, SD = 1.92$) compared to students ($M = 4.17, SD = 1.02$). The main effect of condition and the interaction term for evaluations of the senior opt-out law were not significant ($ps >.05$). When participants were explicitly asked if they believe there should be a maximum age for potential jurors, seniors were significantly more likely to disagree with the option for a maximum juror age (37% stated there should be a maximum age) compared to students (70% stated there should be a maximum age), $\chi^2 (1,200) = 19.89, p < .001$, odds ratio = 3.72.

**Perceptions of Children**

**Child Credibility Assessments**

**Factor structure.** An exploratory principal components factor analysis was conducted to examine if the various measures in the credibility questionnaire captured a single component or multiple components of children’s credibility. The pattern of results did not differ across age groups (students vs. seniors); therefore, the factor analysis was run collapsed across participant age. The credibility measures (competence to testify, overall credibility, honesty, accuracy, believability, consistency, confidence, and likeability) were all moderately or highly positively correlated with each other (range: $r = .314$ to $-.791$), and marginally negatively correlated with suggestibility (range: $r = -.077$ to $-.288$). This analysis produced only one factor accounting for 56.7% (eigenvalue = 5.10) of the total variance (factor loading range: $-.318$ to $.919$), suggesting that respondents’ ratings of various aspects of children’s credibility represented one underlying perspective. See Table 3 for the full correlation table.
### Table 3.

**Pearson correlations for all credibility scales**

<table>
<thead>
<tr>
<th></th>
<th>Competence to Testify</th>
<th>Overall Credibility</th>
<th>Honesty</th>
<th>Believability</th>
<th>Accuracy</th>
<th>Consistency</th>
<th>Confidence</th>
<th>Suggestibility</th>
<th>Likeability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competence to Testify</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Credibility</td>
<td>.750*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honesty</td>
<td>.612*</td>
<td>.757*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Believability</td>
<td>.641*</td>
<td>.789*</td>
<td>.789*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accuracy</td>
<td>.534*</td>
<td>.653*</td>
<td>.653*</td>
<td>.643*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistency</td>
<td>.402*</td>
<td>.527*</td>
<td>.527*</td>
<td>.516*</td>
<td>.516*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confidence</td>
<td>.615*</td>
<td>.677*</td>
<td>.677*</td>
<td>.564*</td>
<td>.564*</td>
<td>.462*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suggestibility</td>
<td>-.254*</td>
<td>-.251*</td>
<td>-.251*</td>
<td>-.236*</td>
<td>-.236*</td>
<td>-.189*</td>
<td>-.288*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likeability</td>
<td>.500*</td>
<td>.611*</td>
<td>.611*</td>
<td>.511*</td>
<td>.511*</td>
<td>.314*</td>
<td>.452*</td>
<td>-.077</td>
<td></td>
</tr>
</tbody>
</table>

*Note: N = 200; *p < .001. For all measures of credibility, higher scores depict greater abilities except for suggestibility where higher scores depict greater suggestibility.*
Perceptions of Children’s Credibility. To examine participants’ credibility assessments across the first two videos, a series of 2 (Trials: trial 1 vs. trial 2) x 2 (Age group: younger vs. older adults) x 4 (Video condition: truth-truth, lie-lie, truth-lie, lie-truth) repeated measures ANOVAs were conducted on each credibility measure. See Table 4 for the mean and standard deviation for each credibility measure and Table 5 for the ANOVA results. Because our main question of interest centered upon age group differences, results are presented below with the main effects of age first, followed by main effects of video condition, and finally any significant interactions.

Table 4.

Means (and standard deviations) for the credibility measures as a function of participant age group and video condition.

<table>
<thead>
<tr>
<th></th>
<th>Truth-Truth</th>
<th>Lie-Lie</th>
<th>Truth-Lie</th>
<th>Lie-Truth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Trial 1</td>
<td>Trial 2</td>
<td>Trial 1</td>
<td>Trial 2</td>
</tr>
<tr>
<td>Competence to Testify</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Younger</td>
<td>4.00 (.97)</td>
<td>3.61 (1.58)</td>
<td>2.30 (1.15)</td>
<td>2.87 (1.63)</td>
</tr>
<tr>
<td>Older</td>
<td>4.07 (1.39)</td>
<td>3.90 (1.50)</td>
<td>2.81 (1.55)</td>
<td>3.31 (1.76)</td>
</tr>
<tr>
<td>Overall Credibility</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Younger</td>
<td>4.33 (.84)</td>
<td>4.00 (1.28)</td>
<td>3.13 (1.18)</td>
<td>3.35 (1.50)</td>
</tr>
<tr>
<td>Older</td>
<td>4.69 (1.07)</td>
<td>4.59 (1.21)</td>
<td>3.81 (1.57)</td>
<td>3.73 (1.61)</td>
</tr>
<tr>
<td>Honesty</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Younger</td>
<td>4.61 (1.04)</td>
<td>4.50 (1.34)</td>
<td>3.43 (1.34)</td>
<td>4.04 (1.66)</td>
</tr>
<tr>
<td>Older</td>
<td>4.93 (1.00)</td>
<td>4.90 (1.11)</td>
<td>4.23 (1.56)</td>
<td>4.31 (1.29)</td>
</tr>
<tr>
<td>Believability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Younger</td>
<td>4.17 (1.34)</td>
<td>4.44 (1.29)</td>
<td>3.09 (1.35)</td>
<td>3.65 (1.82)</td>
</tr>
<tr>
<td>---------------</td>
<td>-------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.18)</td>
<td>(1.18)</td>
<td>(1.27)</td>
</tr>
<tr>
<td>Accuracy</td>
<td>Younger</td>
<td>4.28</td>
<td>4.17</td>
<td>2.96</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.96)</td>
<td>(1.29)</td>
<td>(1.15)</td>
</tr>
<tr>
<td></td>
<td>Older</td>
<td>4.34</td>
<td>4.38</td>
<td>3.23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.26)</td>
<td>(1.12)</td>
<td>(1.18)</td>
</tr>
<tr>
<td>Consistency</td>
<td>Younger</td>
<td>4.56</td>
<td>4.50</td>
<td>4.35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.78)</td>
<td>(1.29)</td>
<td>(1.19)</td>
</tr>
<tr>
<td></td>
<td>Older</td>
<td>4.31</td>
<td>4.52</td>
<td>4.19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.42)</td>
<td>(1.24)</td>
<td>(1.20)</td>
</tr>
<tr>
<td>Confidence</td>
<td>Younger</td>
<td>3.61</td>
<td>3.94</td>
<td>2.65</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.09)</td>
<td>(1.39)</td>
<td>(1.23)</td>
</tr>
<tr>
<td></td>
<td>Older</td>
<td>3.86</td>
<td>4.00</td>
<td>2.85</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.25)</td>
<td>(1.46)</td>
<td>(1.26)</td>
</tr>
<tr>
<td>Suggestibility</td>
<td>Younger</td>
<td>3.67</td>
<td>3.33</td>
<td>3.96</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.28)</td>
<td>(1.50)</td>
<td>(1.26)</td>
</tr>
<tr>
<td></td>
<td>Older</td>
<td>2.90</td>
<td>3.10</td>
<td>3.16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.21)</td>
<td>(1.26)</td>
<td>(1.12)</td>
</tr>
<tr>
<td>Likeability</td>
<td>Younger</td>
<td>4.33</td>
<td>4.61</td>
<td>4.09</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.03)</td>
<td>(.92)</td>
<td>(1.31)</td>
</tr>
<tr>
<td></td>
<td>Older</td>
<td>4.93</td>
<td>4.90</td>
<td>4.54</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.88)</td>
<td>(.94)</td>
<td>(1.14)</td>
</tr>
</tbody>
</table>
Table 5.

2(trial: trial 1, trial 2) x 2 (age group: students, seniors) x4 (video condition: truth-truth, lie-lie, truth-lie, lie-truth) repeated measures ANOVA results for each credibility measure.

Note: * p < .05

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Competence to testify</strong></td>
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### Consistency

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### Confidence

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### Suggestibility

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### Likeability

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**Effects of age group.** Significant main effects of age group (students vs. seniors) were found for ratings of children’s *competence to testify*, *overall credibility*, *honesty*, *believability*, and *likeability* (*likeability* was qualified by a three-way interaction, see below), such that seniors provided higher ratings in these domains compared to students. No significant main effects of
age group were found for ratings of children’s accuracy, consistency, confidence, or suggestibility.

**Effects of video condition.** Significant main effects of video condition (truth-truth, lie-lie, truth-lie, lie-truth) were found for ratings of children’s competence to testify, overall credibility, honesty, believability, accuracy, consistency, and confidence, indicating that evaluations differed across video conditions. No significant main effects of video condition were found for ratings of suggestibility or likeability. However, ratings of children’s competence to testify, overall credibility, honesty, believability, accuracy, consistency, confidence, and suggestibility were each qualified by a significant trial by video condition interaction. Follow-up one-way repeated measures ANOVAs were run to investigate the effect of trial (trial 1 vs. trial 2) separately for each video condition on each credibility score. Results indicated that ratings only significantly differed across trial 1 and trial 2 in the truth-lie and lie-truth conditions (i.e., in the video conditions where the video veracity changed), $ps < .05$. Specifically, truth-tellers were given higher ratings in their competence to testify, overall credibility, honesty, believability, accuracy, consistency, and confidence and lower ratings of suggestibility compared to the lie-tellers in both the truth-lie and lie-truth conditions. No ratings significantly differed across the two trials for participants in the matched veracity conditions (i.e., truth-truth and lie-lie; $ps > .05$). Figure 2 shows the pattern of results for the overall credibility measure (this same pattern was found across competence to testify, honesty, and believability ratings).
Figure 2. Overall credibility ratings provided at trial 1 and trial 2 across video conditions. The significant trial by video condition interaction is depicted. Results are presented collapsed across age group as there was no significant three way interaction with age. Ratings of competence to testify, honesty, and believability followed this same pattern of results. Errors bars represent 95% confidence intervals. Truth-telling videos are represented by light grey bars and lie-telling videos are represented by dark grey bars. N = 200 (100 students; 100 seniors). * = p < .05.

Lastly, a significant three-way interaction between age, video condition, and trial was found for likeability ratings. Follow-up repeated measures ANOVAs were conducted on likeability ratings to examine the effect of trial separately for each video condition and age group. Likeability ratings only differed from trial 1 to trial 2 for students in the truth-lie and lie-truth conditions (p < .05). Students rated the truth-tellers as more likeable compared to the lie-tellers. There was no significant difference in students’ likeability ratings across trial 1 and trial 2 in the truth-truth and lie-lie conditions (p > .05). Likeability ratings from seniors did not significantly differ across trials or video conditions (p > .05).

Given that the videos shown at trial 2 were differentially preceded by either a truth or lie video (based on video condition), a set of analyses were conducted to examine if ratings at trial 2 differed based on the video veracity watched at trial 1 (e.g., to see if those who rated a truth-
teller after a truth-teller differed from those who rated a truth-teller after a lie-teller). A series of 2 (Age group: students vs. seniors) x 4 (Video condition: truth-truth, lie-lie, truth-lie, lie-truth) between subjects ANOVAs were conducted on each trial 2 outcome measure of credibility. Results indicated that trial 2 ratings were not significantly impacted by video veracity at trial 1 for all scales except likeability. Specifically, participants who watched a truth-teller in their first video (truth-lie condition) provided significantly lower ratings of likeability when rating the lie-teller in their second video compared to those who had previously seen a lie-teller in their first video (lie-lie condition; \( p < .05 \)). There were no other significant main effects or interactions (\( ps > .05 \)).

Lie-Detection

Accuracy. Overall, participants were 62% accurate at detecting children’s truths and lies and this accuracy significantly varied by age. As predicted, students were significantly more accurate (67%) than seniors (57%), \( t(199) = 11.99, p < .001, d = 0.70 \). Each groups’ accuracy was then compared to chance (50%), and contrary to our hypothesis, both age groups were found to be significantly above chance, \( t(99)_{\text{students}} = 12.18, p < .001 \ d = 1.22, \ t(99)_{\text{seniors}} = 5.60, p < .001, \ d = 0.56 \).

Signal detection analysis. Signal detection analyses were utilized to examine participants’ ability to correctly discriminate between the truth and lie-telling videos (\( d' \)), and to examine if participants held any biases in rating the videos (criterion \( c \)). Participants’ hit (correctly identifying a lie-teller) and false alarm (inaccurately identifying a truth-teller as a lie-teller) rates were calculated (Stanislaw & Todorov, 1999). \( D' \) values were calculated by subtracting standardized false alarm rates from standardized hit rates. Higher \( d' \) scores indicated greater discriminatory ability (i.e., a higher hit rate and lower false alarm rate). Criterion \( c \) scores
were calculated by adding standardized hit and false alarm rates and multiplying by -0.5. Positive criterion c values indicated a truth bias (higher values indicating a stronger truth bias) and negative scores indicated a lie bias (lower values indicating a stronger lie bias). See Table 6 for percentage accuracy, mean d’, and criterion c values by age group.

Table 6.
Means (and standard deviations) for lie-detection accuracy rates and signal detection analyses.

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<th>Overall accuracy</th>
<th>Truth accuracy</th>
<th>Lie accuracy</th>
<th>d’</th>
<th>Criterion c</th>
<th>Confidence</th>
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<td>.67 (.14)</td>
<td>.86 (.17)</td>
<td>.47 (.29)</td>
<td>.57 (.47)</td>
<td>.47 (.46)</td>
<td>72.19 (11.21)</td>
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<tr>
<td>Seniors</td>
<td>.57 (.13)</td>
<td>.90 (.16)</td>
<td>.25 (.25)</td>
<td>.23 (.42)</td>
<td>.77 (.38)</td>
<td>75.91 (11.33)</td>
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**Discrimination.** Participants’ mean discrimination score was 0.40 (SD = 0.48). An independent samples t-test indicated that, as predicted, students had significantly greater discrimination scores compared to seniors, t(198) = 5.30, p < .001, d = 0.75. Both age groups’ discrimination scores were significantly greater than zero (zero indicates no sensitivity), t(99)students = 12.09, p < .001, d = 1.81, t(99)seniors = 5.50, p < .001, d = 0.55.

**Biases.** Participants’ mean bias (criterion c) score was 0.62 (SD = 0.45), suggesting a truth bias. An independent samples t-test corrected for the violation of homogeneity of variance indicated that seniors held a significantly stronger truth bias compared to students, t(190.56) = 5.09, p < .001, d = 0.73. Criterion c scores from both age groups were significantly greater than zero (zero indicates no bias), t(99)students = 10.09, p < .001, d = 1.01, t(99)seniors = 20.36, p < .001, d = 2.04.
**Confidence.** The mean confidence rating across participants was 74%. In line with our hypothesis, an independent samples t-test indicated that seniors reported significantly greater confidence (76%) compared to students (72%), t(198) = 2.33, p = .021, d = 0.33. Confidence was not significantly related to participants’ accuracy scores (students: r = .002, p = .98, seniors: r = .005, p = .96) or discrimination scores (students: r = -.022, p = .83, seniors: r = -.013, p = .90). Although confidence was not significantly related to seniors’ lie-detection bias (r = .121, p = .23), it was significantly positively related to students’ bias (criterion c) score, such that higher confidence was related to a stronger truth bias (r = .212, p = .034).

**Experience with children.** For both students and seniors, it was found that one’s experience with 9-to-12-year-old children was not significantly related to one’s discrimination score (students: r = -.072, seniors: r = -.129), bias score (students: r = .136, seniors: r = .035), or confidence ratings (students: r = .185, seniors: r = -.005), refuting our hypotheses for participants’ biases.

Next, given that only one student had children, analyses were only run on data from seniors to assess if having children or grandchildren and the number of children or grandchildren were related to lie-detection responses. Contrary to our prediction, no significant differences were found in discrimination, bias, or confidence scores between those who did and did not have children (ps >.05). For seniors with children, a negative relationship was found between number of children and discriminatory ability, r = -.226, p = .030, and confidence, r = -.269, p = .009, indicating that having more children was related to poorer discrimination scores and lower confidence in one’s lie-detection judgments. No significant relationship was found between number of children and one’s bias score (r = .027, p = .796). Unexpectedly, having
grandchildren and the number of grandchildren one had was not significantly related to discriminatory ability, bias, or confidence ($p$s > .05).

**Perceptions of Credibility Across the Lifespan**

To examine if lifespan credibility evaluations differed among younger and older adults, independent samples $t$-tests (corrected for the violation of homogeneity of variance) were run comparing students’ and seniors’ credibility ratings for each witness age group (5- to 7-year-olds, 8- to 10-year-olds, 11- to 12-year-olds, 13- to 17-year-olds, and adults over the age of 18). Significant differences emerged in ratings of those 18 and above, $t(174.73) = 3.62, p < .001, d = 0.52$, those between 13- to 17-years of age, $t(167.47) = 2.47, p = .014, d = 0.36$, those between 8-to-10-years of age, $t(190.04) = 3.57, p = .045, d = 0.14$, and those between 5- to 7-years of age, $t(197) = 2.74, p = .007, d = 0.39$. No significant difference emerged between students and seniors when rating 11 to 12 year olds ($p > .05$). Seniors provided higher ratings for the credibility of the younger witness age groups and lower credibility for the older witness age groups compared to the students’ ratings. See Figure 3.
Figure 3. Student and senior perceptions of witness credibility of various age groups. Significant differences emerged between student and senior ratings of 5-to 7-year-olds, 8-to 10-year-olds, 13-to 17-year-olds, and those over the age of 18 ($ps < .016$).

The Relationship Between Self-Juror Capability Ratings and Lie-Detection

A set of analyses were conducted to examine if self-juror capability ratings (i.e., how capable participants rated themselves as potential jurors) were related to lie-detection performance. Given that condition (informed vs. control) did not significantly impact self-juror capability ratings or lie-detection responses, this analysis was conducted collapsed across condition (informed vs. control). Against our predictions, no significant relationships were found between one’s rating of their capability to serve on a jury and overall accuracy (students: $r = -.081$, seniors: $r = .042$), discrimination (students: $r = -.086$, seniors: $r = .047$), or bias scores (students: $r = .137$, seniors: $r = .073$). However, in line with our hypothesis, significant relationships were found between self-juror capability ratings and subsequent lie-detection confidence ratings (students: $r = .233, p = .020$, seniors: $r = .276, p = .006$), demonstrating that
those who perceived themselves as being more capable to contribute to a jury were also more confident in their ability to detect children’s lies.

**Discussion**

The present study examined undergraduate students’ and seniors’ perceptions of jury duty and child witnesses. Specifically, we measured participants’ attitudes towards jury duty and current jury duty opt-out laws to examine if informing participants that they can opt-out of jury duty would influence their perception of their capability to serve as a juror. In addition, to examine juror decision making, we evaluated participants’ perceptions of child witness credibility (from the children in the videos and lifespan credibility evaluations) and lie-detection judgments when assessing children’s honest and dishonest reports. Lastly, we examined if one’s belief in their capability to serve as a juror was related to their subsequent lie-detection judgments.

**Perceptions of Jury Duty**

Building upon research that has suggested that the senior opt-out law is based upon negative aging stereotypes (Dunlop & Collett, 1999; Entzel et al., 2000; Higgins et al., 2007; Rothman et al., 2000), we predicted that seniors in the informed condition (who were informed about this law) would report lower self-juror capability compared to seniors in the control condition (who were not informed about this law). This hypothesis was not supported as there were no significant condition differences in seniors’ self-ratings of juror capability. Similarly, there were no significant condition differences in seniors’ desire to serve on a jury within the next year or in seniors’ subsequent lie-detection performance. This suggests that, within the current sample of seniors, the senior opt-out law, as presented, did not appear to reinforce
negative aging stereotypes that negatively impacted seniors’ perceptions of their abilities or their subsequent performance on a jury-relevant task. However, these results may be because of the nature of the senior sample in the current study. For example, the seniors in this study were fairly highly educated and reported a high level of cognitive and physical health (e.g., 78% of seniors indicated their health was very good or excellent and seniors reported a mean of 5.20 when asked how active and engaged they are in their activities, with 6 being the maximum value). As such, it may be that the type of seniors that came in for the research study embody more active, confident, and engaged seniors that may not necessarily represent the vast array of individuals in the community. With a more diverse sample of older adults we may have seen more variability in capability responses. Specifically, our sample may have had a more positive view of aging, as evident from their positive self-evaluations of their own health and capabilities. Previous research has found a relationship between positive perceptions of aging and superior cognitive and physical performance (Chasteen et al., 2015; Hess et al., 2003; Levy et al., 2002, 2006). For example, Robertson and Kenny (2016) found that one’s perception of aging moderated the relationship between frailty and cognitive decline in older adults, such that there was only a relationship between frailty and cognitive decline for those who held negative views of aging. As such, one’s view of aging can modify the extent to which an individual is vulnerable to internalizing negative stereotypes that may impact their behaviours and perceptions. Given these findings, it could be that our sample of seniors held a more positive view of aging, making them less susceptible to the manipulation that could have reinforced negative aging stereotypes to alter their self-perceived juror capability. Future studies that examine the impact of this law on a broader sample of seniors would benefit from including a measure of one’s perception of aging to further examine this potential relationship.
Alternatively, our lack of manipulation effect could have been because of the uniqueness of jury duty. Previous studies that have examined the impact of internalizing negative stereotypes on seniors’ perceptions and performance tend to examine explicit skills such as memory; however, the skills required for jury duty may be more ambiguous given that it is not something that every individual experiences. In line with this, only 18% of seniors in the current study had served on a jury in their lifetime. From a stereotype threat perspective, it has been argued that individuals are particularly likely to feel threatened if they feel they may conform to a known stereotype concerning something that is important to them (Dionigi, 2015). Given the uniqueness of serving on a jury, perhaps there are fewer explicit and known aging stereotypes relevant to jury duty, thereby making participants less threatened during the study. Interestingly, jury duty can involve skills that are prone to aging stereotypes such as memory and attention, but it can also tap into skills that increase with age, such as life experience and more confident decision making. From the jury duty questionnaire used in the present study, it is currently unclear which skills participants thought of as making one capable to serve on a jury. Given the complexity of serving as a juror, future studies that attempt to parse apart the factors that contribute to one’s belief in their juror capability can help to better understand seniors’ role in this process and how it may be influenced by jury opt-out laws and potential stereotypes.

Turning to the student sample, as predicted, there were no significant condition differences (informed vs. control) in students’ self-juror capability ratings, supporting the notion that the student opt-out law does not negatively impact students’ perceptions of their juror capability. Similarly, there were no significant condition differences in students’ desire to serve on a jury or subsequent lie-detection performance. In sum, based on the present findings, it appears that both the senior and student opt-out law do not pose harms for negatively impacting
one’s perception of their ability to contribute to a jury; however, future studies examining broader populations are warranted to confirm this conclusion.

As a result of aging stereotypes present in society (Dionigi, 2015), we also predicted that seniors would report lower self-juror capability ratings compared to younger adults. Results refuted this hypothesis as there were no significant differences in self-juror capability ratings across the two age groups. Both groups provided fairly high self-juror capability ratings, suggesting that perhaps jury duty is not a skill that is as vulnerable to aging stereotypes. However, as indicated above, these results are limited to the seniors in our current sample, and future research assessing seniors with a broader range of demographic information is needed to generalize this pattern of results. Although both groups were comparable in rating their own capability to contribute to a jury, when asked how capable seniors are (as a whole) to contribute to a jury, seniors provided significantly higher capability ratings compared to students. This aligns with the stereotype literature by confirming that younger adults provide more negative appraisals of seniors’ abilities compared to how seniors’ perceive their own age group. As such, there may be negative perceptions of seniors’ abilities to contribute to a jury that do not align with seniors’ beliefs, making it important to continue to study seniors in this domain to further examine if and how they experience negative attitudes from others.

Although being informed about the senior or student opt-out law did not impact participants’ perceptions of their capability to serve on a jury, the current study also sought to examine participants’ opinions of these laws to understand how they are received by community members. Previous research has suggested removing the senior opt-out law (Dunlop & Collett, 1999); however, no study to date has directly asked for individuals’ opinion of this law. In line with our hypothesis, we found that students provided significantly higher rates of agreement with
the senior opt-out law compared to seniors. Moreover, when directly asked if they believe there should be a maximum age for potential jurors, only 37% of seniors agreed with this whereas 70% of students agreed. Taken together, these results show that seniors tended to not respond positively to the notion of including a senior opt-out law or maximum age for jurors. The fact that students responded more positively to these criteria reinforces the negative aging stereotypes present in society that favour excluding seniors from important community roles such as jury duty. On the other hand, there were no differences when rating agreement with the student opt-out law, suggesting that these different age-related views are unique to rating the senior population. Thus, although we did not find evidence that the senior opt-out law altered perceptions or behaviours in the present study, seniors’ stronger rate of disagreement with this law is intriguing and calls for continued research to examine this law in more depth.

**Perceptions of Child Witnesses**

The second goal of the present study was to understand how seniors may perceive child witnesses if they were placed on a jury (compared to students). When ratings various factors of children’s credibility, seniors rated children significantly higher in their *competence to testify*, *overall credibility*, *honesty*, *believability*, and *likeability* compared to students. These findings are consistent with the positivity bias that occurs later in life where older adults tend to favor more positive stimuli and perspectives (e.g., Luong, Charles, & Fingerman, 2011; Mather & Carstensen, 2005; Reed & Carstensen, 2012). More specifically, socioemotional selectivity theory argues that this motivation to proactively seek out positive emotions is a result of older adults’ more limited time perspective as they are nearing the later stages of the lifespan (Carstensen, 1993; Carsten, Isaacowitz, & Charles, 1999). Thus, this shift in one’s time perspective may affect how individuals perceive children and children’s abilities to provide
credible reports of events by attributing more positive traits to children. Future studies that directly measure one’s time perspective and credibility evaluations are needed to help support this potential explanation.

It is also important to note that although seniors provided higher ratings of various measures of children’s credibility, they did so when rating both lie-tellers and truth-tellers. Interestingly, this means that when children were telling a coached report, seniors were more likely to believe those children and report that they were honest and credible compared to students. Thus, it appears that senior jurors may more readily believe a child’s coached testimony. This may be problematic if the child is reporting a coached cover story to conceal a transgression or abuse. However, the fact that seniors rated the truth-telling children as more credible and honest compared to students shows promising insight into senior jurors’ willingness to trust children’s truthful testimony.

Although age differences were found in ratings of several credibility measures, no significant age differences were found in ratings of children’s accuracy, consistency, confidence, and suggestibility. While responses to the credibility questionnaire produced one factor in the present study, previous studies have proposed a two-factor model of children’s credibility (Ross et al., 2003) where ratings are separated into two components: honesty and cognitive competence. Research has demonstrated that adults rate child witnesses as more honest but less cognitively competent compared to adult witnesses (Bala et al., 2005; Connolly et al., 2008; Masip et al., 2004; Ross et al., 2003). In line with this idea, the credibility measures that produced no significant age differences fit more within the cognitive competence factor (e.g., accuracy, consistency) whereas the measures that resulted in significant age differences are more related to children’s honesty (e.g., honesty and believability). Thus, it may be that seniors are
particularly more likely to believe that children provide honest reports, but that younger and older adults hold more similar beliefs in how accurate and consistent children’s reports are. However, seniors did provide higher ratings for children’s overall credibility and competence to testify in court. As such, participants’ responses to these more general ratings of credibility and competency may have been more grounded in perceptions of children’s honesty. Future studies that specifically assess the criteria participants use to evaluate children’s general credibility may help inform this potential explanation.

One unique aspect of the present study is that participants provided credibility assessments over two trials (after video 1 and after video 2). As a result of the randomization of the videos, we evaluated if and how responses were influenced when video veracity changed (in the truth-lie and lie-truth conditions) as well as if and how responses were influenced when video veracity remained the same (in the truth-truth and lie-lie conditions). Ratings only significantly differed from trial 1 to trial 2 when the veracity differed across trials (i.e., in the truth-lie and lie-truth conditions) with more favorable ratings of credibility given to the truth-tellers compared to the lie-tellers. This effect of trial was consistent for both age groups (with the exception of likeability), suggesting that both younger and older adults were differentiating between truthful and dishonest reports.

In addition, trial 2 ratings were not significantly impacted by video veracity at trial 1, suggesting that video assessments were made independently during each trial. The only notable exception to this pattern of results is that younger adults provided less positive likeability ratings of a lie-teller at trial 2 when preceded by a truth-teller at trial 1 (compared to those who watched lie-tellers both times). This is likely because the lie-teller in the second video could be compared to the truth-teller from the first video, which may have exacerbated the differences between these
children, resulting in the lie-teller appearing less likeable. In contrast, those in the lie-lie condition only viewed lie-tellers, suggesting that they did not have the same standard set in their first video. It is somewhat surprising that this effect of video veracity at trial 1 only significantly impacted ratings at trial 2 when rating likeability; however, given that likeability was also the only measure to produce a significant three-way interaction, there appears to be more variability surrounding these responses. The more subjective and personal nature of likeability ratings may explain these inconsistent and more variable responses.

Along with the credibility assessments, interesting results were found in lie-detection responses. First, significant age differences were found in the comparison of detection accuracy rates, where seniors were less accurate compared to students, as reflected in their overall accuracy and discrimination ($d'$) scores. This aligns with research in the adult lie-detection literature that has found older adults to display lower accuracy in detecting adult and older adult lies (Ekman & O’Sullivan, 1991; Ruffman et al., 2012; Stanley & Blanchard-Fields, 2008; Sweeney & Ceci, 2014). Stanley and Blachard-Fields found that this lower accuracy rate was, in part, because of the age-related decline in emotion recognition abilities. As such, the findings from the present study contribute to this limited line of research to suggest that seniors also show lower accuracy and discrimination scores (compared to students) when evaluating children’s lies.

However, younger and older adults’ detection accuracy rates were significantly greater than chance. This contrasts a large body of earlier lie-detection research that has consistently found adults to be at or slightly above chance at detecting children’s spontaneous (overall mean accuracy rate of 54%; Crossman & Lewis, 2006; Edelstein et al., 2006; Ekman et al., 1991; Gongola et al., 2017; Strömwall & Granhag, 2005; Talwar, Crossman, Gulmi, Renaud, & Williams, 2009) and coached (Saykaly et al., 2017; Talwar et al., 2006) lies. Although, this
finding does align with one study that demonstrated that adults were above chance when
detecting children’s high-stake lies (Nysse-Carris et al., 2011). While children in Nysse-Carris
and colleagues’ study were coached to lie to conceal breakage by a parent, children in the present
study were coached to lie to conceal breakage by themselves and a confederate. Given that
children in the present stimuli were involved in the transgression (breaking “the boss’”
computer) with the confederate, and were instructed to then conceal this transgression in an
interview with the boss, children may have felt that they were lying under stressful
circumstances. Furthermore, whereas children’s dishonesty in Nysse-Carris’ study constituted
denial responses, results from the present study demonstrate that children’s lies told in a stressful
situation using a free-recall narrative were also easier to detect. Further research examining
children’s high-stakes lies is necessary to help uncover the specific factors within this context
that increases detection accuracy of children’s statements. These future findings may be helpful
in developing novel honesty promotion and lie-detection techniques.

When examining participants’ biases, both age groups held a truth bias for children,
confirming previous findings from younger adults’ veracity judgments (Chahal & Cassidy, 1995;
Evans et al., 2016; Strömwall & Granhag, 2005; Talwar et al., 2015; Wescott et al., 1991);
however, older adults held a significantly stronger truth bias. This pattern of results mirrors the
credibility assessments where older adults reported children to be more honest and credible, and
further supports the positivity bias found in later adulthood. However, the context in which the
videos were placed in the present study may have influenced these findings. For example,
participants were told that each child may or may not be telling the truth, but they were not
informed about additional details surrounding the interview (e.g., that they may be lying to
conceal a transgression). Given that jurors often have access to additional information
surrounding a testimony, the pattern of results may vary based on contextual information and consistency across children’s reports and other case evidence. As this is the first study to examine older adults’ lie-detection of children’s reports, continued research is needed to examine detection judgments in various contexts.

We also found that both groups were fairly confident in their detection judgments, but older adults were significantly more confident. This aligns with previous research that has found older adults to be more confident and secure in their decision making (Higgins et al., 2007; Mossiere & Dalby, 2008). Interestingly, the only significant correlation between confidence and lie-detection judgments was for younger adults’ biases, where higher confidence was related to a greater truth bias. This suggests that younger adults with more biased responses felt more confident. Future studies examining juror confidence and age in the deliberation room are warranted to assess how these variables may play a role in trial outcome.

The present study also examined individual differences (one’s experience and exposure to children) in relation to one’s lie-detection judgments. There have been conflicting findings in the extant lie-detection literature as some studies have found personal exposure to children to be related to higher detection accuracy (Crossman & Lewis, 2006; Talwar et al., 2011), whereas others have found that parents, who have extensive experience with children, do not display superior accuracy (Chahal & Cassidy, 1995; Evans et al., 2016; Talwar & Lee, 2002). In contrast to both sets of these findings, the present study found a negative relationship between number of children and discriminatory ability and confidence. As such, within the current sample of seniors, those who raised more children showed poorer lie-detection performance compared to those who raised fewer children. Although this adds to the inconsistent literature, these results provide initial insight into how the effect of having children may play a different role in various stages of
life, and more research is needed to better understand this potential relationship. No significant relationships were found between having grandchildren or number of grandchildren and lie-detection judgments. Interestingly, although previous research has found parents to hold a stronger truth bias (Evans et al., 2016; Talwar et al., 2015), the present results suggest that grandparents may have a different perspective. However, it is important to note that majority of the participants in our sample were indeed grandparents; therefore, future studies with larger sample sizes of non-grandparents are warranted.

To more generally assess participants’ credibility assessments across the lifespan, participants were asked to rate the credibility of a variety of witness age groups (5- to 7-year-olds, 8- to 10-year-olds, 11- to 12-year-olds, 13- to 17-year-olds, and adults over the age of 18). Seniors provided higher credibility ratings for younger children (5- to 7-year-olds and 8- to 10-year-olds) compared to younger adults, both groups were comparable in rating 11- to 12-year-olds, but then the opposite pattern emerged for rating the older groups (13- to 17-year-olds and adults over the age of 18) where the younger adults provided higher credibility ratings. This developmental pattern of witness credibility indicates that older adults provided higher credibility ratings compared to younger adults for a larger age range (5 to 10 years old) than was presented in the video stimuli. Additionally, older adults provided less positive credibility evaluations for adolescents and adults compared to younger adults. Given these findings, a larger developmental study of credibility and veracity judgments across the entire lifespan is needed to gain a clearer picture of how witness and juror age interact.

Lastly, we sought to examine if one’s perception of their capability to serve on a jury was related to their subsequent ability to detect children’s lies. Given the null findings with condition (informed vs. control) and self-juror capability ratings, we examined this relationship collapsed
across condition. For both students and seniors, there were no significant relationships between one’s perception of their ability to contribute to a jury and subsequent lie-detection accuracy or bias. However, moderate positive correlations were found between perceived juror capability and subsequent confidence in one’s lie-detection for both students and seniors. This shows consistency in self-perception ratings suggesting that these individuals may have a higher level of confidence in themselves across domains. Interestingly, the fact that this confidence in one’s juror capability was not related to one’s accuracy suggests that although these individuals believed they were more capable to be on a jury (that involves tasks such as choosing which testimony to trust), their performance was not superior to those who believed themselves to be less capable. This aligns with previous lie-detection research that has shown that across a range of participants in various professions (e.g., police officers), one’s ability to accurately detect lies is not a skill that is strongly predicted by perceived expertise (Gongola et al., 2017).

In sum, the present investigation found promising results for seniors to continue to be included in the judicial process. Seniors provided a strong belief in their capability to contribute to a jury and a strong desire to be on a jury. However, there may be aging stereotypes present in society that could harm seniors when given this opportunity as the majority of students were in favour of implementing maximum age thresholds for jurors. Furthermore, when examining how seniors and students may perceive child witnesses when placed on a jury, seniors provided more favorable credibility assessments, poorer detection accuracy, and greater truth biases when evaluating children’s honest and dishonest reports. However, both age groups have overall accuracy rates that were above chance. Lastly, we did not find a relationship between one’s perceived capability to serve as a juror and subsequent lie-detection performance. The results of this study inform the legal policy, credibility, and lie-detection fields and can be informative for
legal professionals to better understand how juror age can play an important role in perceptions of child witnesses. These findings lay the foundation for a highly needed field of research to further examine how potential senior jurors contribute to our judicial system and perceive child witnesses.
References


Appendix A
Senior Jury Opt-Out Laws Across Canada

Provinces **with** the opt-out law for those age 65 years old and older:

- British Columbia
- Quebec
- Saskatchewan
- Prince Edward Island
- Newfoundland
- Yukon

Provinces **with** the opt-out law for those over 70 years old:

- Nova Scotia
- New Brunswick

Provinces and Territories **without** the opt-out law for seniors:

- Ontario
- Alberta
- Manitoba
- Northwest Territories
- Nunavut

For provinces and territories with the senior opt-out law, seniors have the *option* to opt-out of jury duty or can choose to attend jury selection.
Appendix B

Child Credibility Questionnaire

1. How accurately do you think the child recalled the event?
1  2  3  4  5  6
Very inaccurately Very accurately

2. How believable was the child?
1  2  3  4  5  6
Not at all believable Very believable

3. How consistent was the child?
1  2  3  4  5  6
Not at all consistent Very consistent

4. How honest do you think the child was?
1  2  3  4  5  6
Not at all honest Very honest

5. How susceptible do you think the child was to misleading or suggestive questions?
1  2  3  4  5  6
Not at all susceptible Very susceptible

6. How confident was the child?
1  2  3  4  5  6
Not at all confident Very confident

7. How likeable was the child?
1  2  3  4  5  6
Not at all likeable Very likeable
8. Overall, how **credible** was the child?

1  2  3  4  5  6
Not at all credible      Very credible

9. How competent do you think the child would be competent to testify in a legal setting?

1  2  3  4  5  6
Not at all competent      Very competent

10. Do you think the child was being truthful or dishonest?

☐ Truthful
☐ Dishonest

11. How confident are you in this decision?

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

Lie-Detection Questionnaire

1. Do you think the child was being truthful or dishonest?

☐ Truthful

☐ Dishonest

2. How confident are you in this decision?

0 10 20 30 40 50 60 70 80 90 100

Not at all confident  Extremely Confident
Appendix D  
General Lifespan Credibility Questionnaire

Please respond to the following based on your overall opinion of children.

Please rate the credibility of each of these groups by positioning them (relative to each other) on the following scale.

To indicate where a group would lie on this scale, draw a line in the appropriate area and then write the specific numerical value out of 100 on the “score” line.

Higher scores represent higher credibility.

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Appendix E

Jury Duty Questionnaire

Informed Conditions

1. **Seniors:** Citizens age 65 years and older have the option to be exempt from jury duty. If you were requested to serve on a jury within the next year, would you want to serve on the jury?

   Students: Full-time students have the option to be exempt from jury duty. If you were requested to serve on a jury within the next year, would you want to serve on the jury?

   □ Yes
   □ No

   1a. Please explain your response.

2. How capable do you think you are to serve as a jury member?

   1 2 3 4 5 6
   Very incapable Very capable

   2a. Please explain your response.

3. How capable are jury members that are over the age of 65?

   1 2 3 4 5 6
   Very incapable Very capable

   3a. Please explain your response.

4. Do you believe there should be an age-cap (i.e., a maximum age) for potential jurors?

   □ Yes
   □ No

   4a. If yes, what age? ______

   4b. Please explain your response.
5. In some provinces and states, people age 65 years and older can opt-out of jury duty solely due to their age. To what extent do you agree with this criterion?

1  2  3  4  5  6
Strongly Disagree  Strongly Agree

5a. Why do you think those over the age of 65 can opt-out of jury duty?

6. In most provinces and states, full-time students can opt-out of jury duty solely due to their student status. To what extent do you agree with this criterion?

1  2  3  4  5  6
Strongly Disagree  Strongly Agree

6a. Why do you think full-time students can opt-out of jury duty?

7. Have you had previous experience on a jury?

☐ Yes
☐ No

7a. If yes, how many times have you served on a jury? _____

7b. If yes, how old were you when you served on a jury? (Indicate all ages if you have served on a jury multiple times) ____________________________

8. Relative to other people your age, how active and engaged are you with your daily activities?

1  2  3  4  5  6
Very inactive and un-engaged  Very active and engaged

9. Seniors: Prior to the study, were you already aware of the exclusionary criteria for those over 65 (or 70 in some provinces) to opt-out of jury duty?

Students: Prior to the study, were you already aware of the exclusionary criteria for registered full-time students to opt-out of jury duty?

☐ Yes
☐ No
Control Conditions

1. If you were requested to serve on a jury within the next year, would you want to serve on the jury?
   □ Yes
   □ No

   1a. Please explain your response.

2. How capable do you think you are to serve as a jury member?
   1  2  3  4  5  6
   Very incapable  Very capable

   2a. Please explain your response.

3. How capable are jury members that are over the age of 65?
   1  2  3  4  5  6
   Very incapable  Very capable

   3a. Please explain your response.

4. Do you believe there should be an age-cap (i.e., a maximum age) for potential jurors?
   □ Yes
   □ No

   4a. If yes, what age? _____

   4b. Please explain your response.

5. In some provinces and states, people age 65 years and older can opt-out of jury duty solely due to their age. To what extent do you agree with this criterion?
   1  2  3  4  5  6
   Strongly Disagree  Strongly Agree
5a. Why do you think those over the age of 65 can opt-out of jury duty?

6. In most provinces and states, full-time students can opt-out of jury duty solely due to their student status. To what extent do you agree with this criterion?

1 2 3 4 5 6
Strongly Disagree Strongly Agree

6a. Why do you think full-time students can opt-out of jury duty?

7. Have you had previous experience on a jury?

□ Yes
□ No

7a. If yes, how many times have you served on a jury? _____

7b. If yes, how old were you when you served on a jury? (Indicate all ages if you have served on a jury multiple times) __________________________

8. Relative to other people your age, how active and engaged are you with your daily activities?

1 2 3 4 5 6
Very inactive and un-engaged Very active and engaged

9. **Seniors:** Prior to the study, were you already aware of the exclusionary criteria for those over 65 (or 70 in some provinces) to opt-out of jury duty?

**Students:** Prior to the study, were you already aware of the exclusionary criteria for registered full-time students to opt-out of jury duty?

□ Yes
□ No
Appendix F

Demographic Questionnaire

1. Your gender:
   - Male
   - Female
   - Other

2. Your age: ________________

3. Is English your first language?
   - Yes
   - No

   3a. If not, how many years have you been speaking English? ______

4. What is your ethnicity? ______________________

5. Nationality (please check one)
   - Canadian citizen
   - Landed Immigrant
   - Student Visa
   - Other (please specify): _________________________

6. What is your occupation? ______________________

   - OR check this box if you are retired

7. What is your highest level of completed education?

   - High school diploma or equivalency (GED)
   - College
   - Post-Graduate Degree
   - Other (please specify): _________________
8. What is your total household income? (Please choose only one):

☐ Less than $25,000
☐ $25,000 to $34,999
☐ $35,000 to $49,999
☐ $50,000 to $74,999
☐ $75,000 to $99,999
☐ $100,000 to $149,999
☐ $150,000 or more

9. In the past 1 year, how many interactions would you say you have had with 9- to 12-year-old children (please choose only one):

☐ Daily
☐ Weekly
☐ Monthly
☐ 2-11 times per year
☐ 1 time per year
☐ Less than 1 time per year

10. Do you have any children?

☐ Yes
☐ No

10a. If yes, how many children do you have? _______

10b. How often do you see your children?

☐ Daily
☐ Weekly
☐ Monthly
☐ 2-11 times per year
☐ 1 time per year
☐ Less than 1 time per year
11. Do you have any grandchildren?

☐ Yes
☐ No

11a. If yes, how many grandchildren do you have? _______

11b. How often do you see your grandchildren?

☐ Daily
☐ Weekly
☐ Monthly
☐ 2-11 times per year
☐ 1 time per year
☐ Less than 1 time per year

12. How would you rate your physical health?

☐ Excellent
☐ Very good
☐ Good
☐ Fair
☐ Poor

13. In general, how often does your health affect your daily activities?

☐ Never
☐ Rarely
☐ Sometimes
☐ Often
☐ Almost always (i.e., every day)

14. How often have you visited your doctor in the past year?

☐ Never
☐ 1-2 times
☐ 3-5 times
☐ 6-9 times
☐ 10-12 times (i.e., once a month)
☐ 2-3 times a month
☐ Once a week
Appendix G

MMSE

Participant ID: _______________  Date: _______________

Instructions:
- Score one point for each correct response within each question or activity.
- You can repeat the question up to 3 times (e.g., if they didn’t hear) - if they don’t respond after 3rd time, score 0
- If they answer incorrectly, score a 0 and do not re-ask or give hints.

<table>
<thead>
<tr>
<th>Maximum Score</th>
<th>Patient’s Score</th>
<th>Questions</th>
</tr>
</thead>
</table>
| 5             |                | □ What is the year?  
               |                | □ Season?  
               |                | □ Date?  
               |                | □ Day?  
               |                | □ Month?  
| 5             |                | □ What country are we in?  
               |                | □ Province?  
               |                | □ City?  
               |                | □ Building? (Brock University or Plaza building are correct)  
               |                | □ Floor?  
| 3             |                | Name three unrelated objects clearly and slowly:  
               |                | - Apple  
               |                | - Table  
               |                | - Penny  
               |                | Ask the participant to repeat the 3 objects.  
               |                | □ Apple  
               |                | □ Table  
               |                | □ Penny  
               |                | Repeat them if necessary until participant names all of them, if possible.  
| 5             |                | “Spell WORLD backwards.” (D-L-R-O-W)  
               |                | Response: _______________  
               |                | Score 1 point for each letter said in the correct order.  


| 3 | “Earlier I told you the names of three things. Can you tell me what those were?”
|   | □ Apple
|   | □ Table
|   | □ Penny
|   | [Any order is correct] |
| 2 | Show the patient two simple objects and ask them to name them:
|   | □ Stopwatch
|   | □ Pencil |
| 1 | □ “Repeat the phrase: ‘No ifs, ands, or buts.’” |
| 3 | “Take the paper in your right hand, fold it in half, and put it on the floor.” *(Give the participant a piece of blank paper)*
|   | □ Took paper in right hand
|   | □ Folded it in half
|   | □ Put it on the floor |
| 1 | □ “Please read this and do what it says.”
|   | *(Written instruction is “Close your eyes.”)* |
| 1 | □ “Make up and write a sentence about anything.” |
| 1 | □ “Please copy this picture.”
|   | On their paper below their sentence, ask him/her to draw the symbol below. *(Hand them the sample of this drawing)*

30 TOTAL
### Interpretation of the MMSE:

<table>
<thead>
<tr>
<th>Method</th>
<th>Score</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Cutoff</td>
<td>&lt;24</td>
<td>Abnormal</td>
</tr>
<tr>
<td>Range</td>
<td>&lt;21</td>
<td>Increased odds of dementia</td>
</tr>
<tr>
<td></td>
<td>&gt;25</td>
<td>Decreased odds of dementia</td>
</tr>
<tr>
<td>Education</td>
<td>21</td>
<td>Abnormal for 8th grade education</td>
</tr>
<tr>
<td></td>
<td>&lt;23</td>
<td>Abnormal for high school education</td>
</tr>
<tr>
<td></td>
<td>&lt;24</td>
<td>Abnormal for college education</td>
</tr>
<tr>
<td>Severity</td>
<td>24-30</td>
<td>No cognitive impairment</td>
</tr>
<tr>
<td></td>
<td>18-23</td>
<td>Mild cognitive impairment</td>
</tr>
<tr>
<td></td>
<td>0-17</td>
<td>Severe cognitive impairment</td>
</tr>
</tbody>
</table>

### Interpretation of MMSE Scores:

<table>
<thead>
<tr>
<th>Score</th>
<th>Degree of Impairment</th>
<th>Formal Psychometric Assessment</th>
<th>Day-to-Day Functioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-30</td>
<td>Questionably significant</td>
<td>If clinical signs of cognitive impairment are present, formal assessment of cognition may be valuable.</td>
<td>May have clinically significant but mild deficits. Likely to affect only most demanding activities of daily living.</td>
</tr>
<tr>
<td>20-25</td>
<td>Mild</td>
<td>Formal assessment may be helpful to better determine pattern and extent of deficits.</td>
<td>Significant effect. May require some supervision, support and assistance.</td>
</tr>
<tr>
<td>10-20</td>
<td>Moderate</td>
<td>Formal assessment may be helpful if there are specific clinical indications.</td>
<td>Clear impairment. May require 24-hour supervision.</td>
</tr>
<tr>
<td>0-10</td>
<td>Severe</td>
<td>Patient not likely to be testable.</td>
<td>Marked impairment. Likely to require 24-hour supervision and assistance with ADL.</td>
</tr>
</tbody>
</table>
Appendix H

Ethics Approval

Certificate of Ethics Clearance for Human Participant Research

DATE: 1/24/2017

PRINCIPAL INVESTIGATOR: EVANS, Angela - Psychology

FILE: 16-143 - EVANS

TYPE: Faculty Research

STUDENT: Alison O'Connor

SUPERVISOR: Angela Evans

TITLE: Juror Perceptions of Children Across Adulthood

ETHIC’S CLEARANCE GRANTED

Type of Clearance: NEW

Expiration Date: 1/31/2018

The Brock University Social Science Research Ethics Board has reviewed the above named research proposal and considers the procedures, as described by the applicant, to conform to the University's ethical standards and the Tri-Council Policy Statement. Clearance granted from 1/24/2017 to 1/31/2018.

The Tri-Council Policy Statement requires that ongoing research be monitored by, at a minimum, an annual report. Should your project extend beyond the expiry date, you are required to submit a Renewal form before 1/31/2018. Continued clearance is contingent on timely submission of reports.

To comply with the Tri-Council Policy Statement, you must also submit a final report upon completion of your project. All report forms can be found on the Research Ethics web page at http://www.brocku.ca/research/policies-and-forms/research-forms.

In addition, throughout your research, you must report promptly to the REB:

a) Changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;

b) All adverse and/or unanticipated experiences or events that may have real or potential unfavourable implications for participants;

c) New information that may adversely affect the safety of the participants or the conduct of the study;

d) Any changes in your source of funding or new funding to a previously unfunded project.

We wish you success with your research.

Approved:

[Signature]

Ann-Marie DiBase, Chair
Social Science Research Ethics Board

Note: Brock University is accountable for the research carried out in its own jurisdiction or under its auspices and may refuse certain research even though the REB has found it ethically acceptable.

If research participants are in the care of a health facility, a school, or other institution or community organization, it is the responsibility of the Principal Investigator to ensure that the ethical guidelines and clearance of those facilities or institutions are obtained and filed with the REB prior to the initiation of research at that site.