Perceptions of Child Witnesses: The Impact of Priming on Adults’ Perception of

Children’s Credibility

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Supervised by Dr. Kaila C. Bruer

University of Regina

By:

Mackenzie A. R. Furlong

Regina, Saskatchewan

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Abstract

Adults, specifically police officers, jurors, judges, teachers, and parents, are often tasked with judging the credibility of children’s reports of an event. Those same individuals, who have a duty to be unbiased when assessing a child’s credibility, are often making their judgements off pre-existing beliefs. As such, there is a great deal of interest in understanding how children’s credibility may be impacted by the biases that adults have towards them. The phenomenon of ‘priming’ may explain how biases, either consciously or subconsciously, influence the decisions that individuals make. The present study examined whether priming individuals to consider a child’s morality, before asking them to make a decision about it, would impact the subsequent decision that they ended up making regarding that child’s credibility. Participants were asked to rate children’s honesty (i.e., trustworthiness and truthfulness) and cognitive ability (i.e., understanding and intelligence), according to the two-factor model, after watching a combination of videos. Results indicated that the priming manipulation did not impact adults’ later decision-making. We also found that, at best, adults’ were only slightly better than chance at detecting children’s lies. Consequently, adults’ confidence in their initial prediction (i.e., after watching the ‘first 5 guesses’ video) was significantly higher than their confidence in while making their final decision (i.e., after watching the ‘final guess’ video). This research will have significant implications, specifically in the legal context, where children’s perceived credibility, adults’ ability to distinguish honest from dishonest statements, and their confidence in the decisions they make are all important factors when assigning a final verdict.

Keywords: Children's credibility, priming, bias, decision-making, two-factor model of credibility, morality
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Perceptions of Child Witnesses: The Impact of Priming on Adults’ Perception of Children’s Credibility

Many children are asked to report on their experiences as either a victim of, or witness to, a crime. For many of these crimes, the only piece of evidence available for scrutiny is the child’s version of what happened during the transgression. The individuals who are commonly tasked with interpreting the credibility of such reports are adults, specifically, police officers, parents, teachers, jurors and judges. Those same individuals, who have a duty to be unbiased, often make their judgements based off pre-existing beliefs (Culhane et al., 2004). Adults’ judgements may be negatively biased when assessing children’s honesty and cognitive ability, which may change how they view children’s credibility. Previous research has examined how different factors impact children’s perceived credibility when testifying (how accurate, honest, and complete the testimony is; e.g., Eaton et al., 2001; Regan & Baker, 1998; Ross et al., 2003) and how adults perceive children’s morality (e.g., Gomez-Garibello et al., 2013; Leach et al., 2004; Talwar et al., 2015). However, limited research has explored the magnitude of the impact that these two elements (perceived credibility and perceived morality) have, when working together, on forthcoming judgements. It is possible that preconceived beliefs about a child’s morality can influence how credible an adult finds that child’s later reports to be. Research on the psychological phenomenon of ‘priming’ (e.g., Fraser & Stevenson, 2014; Fraser et al., 2011) would suggest that getting adults to think about the morality of a child could alter their subsequent decisions and perceptions of that child. The present study will examine whether preconceived ideas about children’s morality will impact an adult's perception of children’s credibility. This research will improve our understanding of how heavily the interpretation of legal evidence, specifically, a child’s testimony, may be impacted by such bias.
Preconceived Beliefs

**Priming and decision-making.** Individuals are shaped and molded by their environment and life experiences (Berk, 2013). When faced with new experiences, individuals subconsciously use their pre-existing knowledge, beliefs, motives, or situational contexts to guide their later perception of something or someone (Fraser & Stevenson, 2014). This phenomenon known as ‘priming’ alters an individual’s attitude towards something to fit into their pre-existing mold (Fraser & Stevenson, 2014). Kliger and Gilad (2012) studied the impact of colour priming on adults’ financial decision-making and discovered that certain colours impacted adults later financial decisions. This concept of ‘priming’ has been replicated with various decision-making objectives in mind, including the judgement of objects (Ratcliff & McKoon, 1995), safety decisions (Lu & Davis, 2018), and facial attractiveness (Zhang et al., 2016), all of which have found evidence that supports the impact of priming on decision-making. Thus, we can infer that focusing attention on pre-existing beliefs can influence later decision-making as well by, essentially, priming individuals to consider children’s morality. In the present study, the impact of preconceived beliefs will be examined to see whether they will have an impact on adults’ later perceptions of children’s credibility.

Comparatively, research looking at the forensic confirmation bias (FCB) has yielded similar results. The FCB suggests that priming can bias the interpretation of legal evidence in the courtroom (Perez & Rafael, 2015) including witnesses’ reports of events. This bias can affect jurors, judges, eyewitnesses, and expert witnesses, either consciously or subconsciously (Dror et al., 2011; Perez & Rafael, 2015). The beliefs of guilt or innocence may be altered when the judgement is reliant on the decisions of certain individuals who may hold negative biases. Charman et al. (2009) found that both mock-jurors and mock-investigators were more likely to
rate a suspect as guilty when given prior information (i.e., asked to rate the similarity between the suspect’s booking photo and a police composite sketch) that led to preconceived beliefs of guilt.

A similar study by Charman et al. (2017) investigated whether the impact of the FCB would also extend to experienced police officers. Using a sample of university students ($n = 89$) and police officers ($n = 227$), Charman et al. (2017) found that police officers’ preconceived biases did affect their interpretation of evidence, their initial prediction of guilt, and their final decision of guilt. Furthermore, Kassin et al. (2013) argued that the FCB has a significant impact on the interpretation of legal evidence, particularly in terms of perceptions of defendant guilt. Therefore, it is reasonable to assume that priming individuals to consider their pre-existing beliefs will have a significant impact on their later judgement of children’s credibility. Despite the overwhelming support of the FCB, some studies have found contradictory results. Hall and Player (2008), for example, found that providing fingerprint experts with an emotional context (i.e., an examination report referring to an allegation of murder) did not impact their judgements of fingerprint evidence. That said, there is ample research to suggest that perceptions of legal evidence can be biased by earlier held beliefs. Therefore, the present study will examine the impact of preconceived beliefs, and will, in turn, give further insight on priming, decision-making, and the forensic confirmation bias.

**Children’s morality.** As children develop, they are constantly faced with new experiences that test their morality. Children can be put into situations where they are tempted by the opportunity to cheat and lie about a transgression. Research has suggested that children as young as 4-years-old can fabricate and build on lies (Newton et al., 2000) and that cheating behaviour is quite common among these young children (Callender et al., 2010). A common
paradigm that researchers use to study children’s cheating and lie-telling behaviour is the temptation resistance paradigm (TRP; e.g., Carl & Bussey, 2019; Talwar & Lee, 2002, 2008). A TRP places children in a scenario where they will be tempted to do something that they should not, whether it be to touch, play, eat off-limit items, or even break the rules (cheat) of a game to win. The main goal for researchers during this scenario is to have the children give into the temptation that is before them and to test whether children will truthfully report their cheating later. A study by Callender et al. (2010) used a TRP and found that 63% of 5- and 6-year-olds ended up breaking the rules (i.e., cheating) at least once in one of two games when given the chance. Likewise, Talwar and Lee (2008) found that 82% of children between 3- and 8-years-old peeked in a game after being instructed not to do so, and 64% subsequently lied about their transgression. Thus, it is clear that children do have difficulty with regulating their self-control and impulsivity in face of temptation.

When considering children’s tendency to cheat and lie, it is also important to consider adults’ ability to detect those lies. Children can strategically lie by 4- or 5-years-old (Fu et al., 2012). As children get older, their lie-telling ability rapidly increases (Talwar et al., 2015; Talwar & Lee, 2002), thus, children, even during middle childhood (aged 6 to 11-years-old), can successfully deceive adults. According to Strömwall et al. (2007), adults were not able to detect older children’s (aged 11- to 13-years-old) prepared or unprepared lies any better than by chance (51.5%). However, Talwar et al. (2011) found that adults’ accuracy in detecting lies in much younger children (preschool and school-aged) was statistically above chance levels: approximately 55% accurate detection rate. Therefore, this research supports the idea that children’s lie-telling ability does increase with age.
Correspondingly, Leach et al. (2004) found that neither customs officers, police officers, nor students could accurately differentiate between liars and truth-tellers after watching videos of a wide age-range of children (3- to 11-years-old) participating in a TRP. Gomez-Garibello et al. (2013) studied educators’ accuracy in detecting children’s deception and found that their accuracy was also not significantly above chance levels. Thus, we can conclude that adults struggle with differentiating between children’s lies and truths. Although adults, in general, are not successful at detecting children’s lies, they usually rate themselves as being very confident in their abilities (Evans et al., 2016). As a result, adults’ subpar ability to detect lies, coupled with their high ratings of confidence, may generate a bias that alters how adults perceive children’s honesty, and, in turn, children’s morality.

**Adults’ perceptions of children’s morality.** Adults’ perception of children’s morality is typically studied in terms of their perceptions of children’s cheating and lie-telling behaviour. Talwar et al. (2015) studied whether parents were accurate in judging their own children’s moral behaviour. In this study, 250 children (aged 3- to 11-years-old) participated in a TRP (Talwar et al., 2015). The mothers of these children were asked to predict whether their child would cheat when given the opportunity and to guess whether their child lied or told the truth about their transgression (Talwar et al., 2015). The results indicated that 54% of mothers predicted that their child would not cheat on the task, 74% thought that their child was, subsequently, telling the truth about the event, and 59.6% were accurate in their prediction (Talwar et al., 2015). Overall, Talwar et al. (2015) provides insight on parents' ability to detect their children’s lies, yet it also reveals that parents are biased to think that their own children are honest and unlikely to cheat. Such findings have been replicated several times (e.g., Crossman & Lewis, 2006; Strömwall & Granhag, 2005; Talwar & Lee, 2002). At the same time, there is a significant amount of
conflicting interpretations of children’s morality. Some research suggests that adults have a truth bias (i.e., belief that statements are honest) towards children (e.g., Edelstein et al., 2006; Evans et al., 2016; Strömwall & Granhag, 2005), while others emphasize a lie bias (i.e., belief that statements are dishonest; e.g., Crossman & Lewis, 2006; Masip et al., 2008). Thus, given the contradictory research, the present study will expand the literature on adults’ biases to measure how a lie or a truth bias may impact adults’ subsequent ratings of children’s credibility.

**Perceptions of Child Witnesses**

Understanding how adults judge the credibility of information provided by a child witness has been framed using the two-factor model of credibility (Ross et al., 2003). The two-factor model explores credibility based on two factors: honesty and cognitive ability (Ross et al., 2003). The consideration given to either honesty and cognitive ability, when evaluating the credibility of a witness, appears to depend upon a number of factors, including testimony presentation mode (Eaton et al., 2001), demeanor of the child (Regan & Baker, 1998), appearance of the child (Masip et al., 2008), and, importantly, the circumstances of a case/crime (Nunez et al., 2011). Current research on children’s credibility has yielded mixed results.

**Honesty.** Children’s credibility seems to be heavily impacted by perceptions of children’s honesty. Honesty is a moral behaviour that is often measured by an individual’s perceived truthfulness (Talwar et al., 2015). Generally, children are believed to be more honest than adults (Ross et al., 2003). Several studies have found that adults often perceive children either as equally credible as adults, or sometimes more credible than adults (e.g., Bottoms & Goodman, 1994; O’Connor et al., 2019). Several factors appear to impact how honest the child is perceived by those in the courtroom, including the child’s appearance. Masip et al. (2008) found evidence in support of the ‘baby-face-overgeneralization’, which suggests that children who
appear younger are considered to be more innocent, truthful, and honest. Thus, we can extend this research to infer that younger looking children may be recognized as more credible than older children or adolescents. A child’s emotional reactivity and demeanor, either towards the assailant or during their testimony in response to questioning, also influences their honesty (Regan & Baker, 1998). If a child displays more sad or angry emotional reactions, they are viewed as being more honest to jurors (Regan & Baker, 1998). Jurors’ susceptibility to the emotions a child displays can be explained by the Dangerous Decisions Theory (DDT).

According to Porter and Brinke (2009), the DDT is when jurors or judges analyze witnesses' facial and emotional expressions, thus producing and triggering a series of problematic decisions and judgements about that witness’s credibility. The decisions that adults make, based off the witnesses’ emotional expressions, can be very problematic. When judges or jurors initiate the DDT, they are making their judgement of credibility solely off their intuition and subjective schemas on what they consider to be trustworthy behaviours (Porter & Brinke, 2009).

However, there have also been studies finding that adults can also have concerns about children’s honesty (i.e., lie bias) that, in turn, cause children’s testimonies to be viewed as less reliable when testifying compared to adolescents and adults (e.g., Crossman & Lewis, 2006; Leippe & Romanczyk, 1987; Masip et al., 2008; Ross et al., 2003). This may be explained, in part, by perceptions that children are susceptible to coaching, either by a parent or lawyer, to omit or add details to their testimony (Talwar & Crossman, 2012). According to a study conducted by Fogliati and Bussey (2013), children were more likely to lie, and maintain the lie, after being coached by an adult to do so. Although adults seem to be concerned with children’s susceptibility to coaching, they also appear to be extremely inaccurate at differentiating between coached and uncoached reports (Leichtman & Ceci, 1995).
One specific circumstance where a child’s perceived honesty is of critical importance is during child sexual abuse (CSA) cases. A significant amount of research (e.g., Bottoms & Goodman, 1994; Davies & Rogers, 2009; Golding et al., 1995) has identified children as being valuable and credible witnesses in CSA trials (but see Brewer et al., 1997). Children’s credibility during CSA trials can be attributed to multiple factors, including the witnesses’ age (younger is more credible; e.g., Cross et al., 1994; Davies & Rogers, 2007; Meyer, 2007), demeanor (showing more emotion is credible; Regan & Baker, 1998), and the jury member’s gender (females rate credibility higher; Bottoms et al., 2014). Honesty plays a big role in CSA cases because most people hold the belief that children would not have the knowledge or experience to fabricate a lie based on sexual experiences—therefore, testimony about sexual abuse must be truthful (Faller, 1984). The focus on honesty and truth bias does not seem to be as apparent in cases that are believed to be more easily fabricated by a child (e.g., physical abuse, custody disputes; Goodman et al., 1987). Thus, there are multiple factors that influence the perceived honesty of the child. The impact of either the presence or absence of these factors may be especially significant when adults are expected to consider a child’s overall morality in determining whether or not they are a credible witness. Honesty, however, is not the only factor considered when rating credibility. Although perceived to be honest, children are also perceived to be less accurate, less intelligent, and have poorer memory capabilities in comparison to adults (Ross et al., 2003).

**Cognitive ability.** The second factor in the two-factor model, cognitive ability, refers to an individual’s ability to plan, problem-solve, reason, and execute abstract thinking (Berk, 2013). Despite some research suggesting a truth bias with child witnesses (e.g., Edelstein et al., 2006; Evans et al., 2016; Strömwall & Granhag, 2005), perceptions of children’s cognitive ability
appear to be largely driven by adults’ pre-existing, negative stereotypes of children’s cognitive abilities (Ross et al., 2003). For example, according to Ross et al. (2003), surveys found that mock-jurors believe that children’s testimonies are less credible due to children’s low accuracy, poorer memory, and underestimated intelligence. Research conducted by Bruer and Pozzulo (2014) examined if there was a difference between the perception of child and adult witnesses, as well as whether descriptive recall errors impacted juror decision-making. The researchers found that eyewitnesses who made fewer recall errors (reflective of cognitive ability) were perceived by mock jurors as giving more reliable testimonies, and that adults’ reports were viewed with more integrity (i.e., credibility, accuracy, and reliability) above children’s reports. (Bruer & Pozzulo, 2014). When considering the fact that some trials place a heavy emphasis on the ability of a child to correctly remember an event (Ross et al., 1990), an adult’s preconceived beliefs about the limitations of a child’s memory capabilities may be of critical importance.

Overall, the current literature on children’s perceived credibility leads to many unanswered questions. Whether jurors or judges choose to rely more heavily on either a child’s honesty or cognitive ability can often depict whether a child’s details of an event are considered to be credible (Ross et al., 2003). Thus, it is pertinent to understand how adults perceive both the cognitive ability and honesty of children. Although both factors may be weighed disproportionately depending on the circumstances of a case, a child’s perceived morality may be a key component in how overall credibility is assessed. As apparent in everything above, adults’ perceptions appear to be impacted by preconceived beliefs. A gap in the literature seems to exist to examine how the perceived morality of a child may impact the later perception of that child’s credibility and honesty. The present study will thoroughly examine the extent of that impact, if
one exists, by priming individuals to consider children’s moral behaviour before asking them to make a judgement on children’s credibility.

**Present Study**

In the present study, we aimed to examine whether preconceived beliefs of children’s morality would impact adult’s later perceptions of children’s credibility. The proposed research assessed the perceived credibility of children by using the two-factor model of children’s credibility as the foundation. Based on existing research (e.g., Kliger & Gilad, 2012; Ratcliff & McKoon, 1995; Zhang et al., 2016), we hypothesized that asking adults to make predictions as to whether or not a child would cheat during a game (priming adults to consider the child’s morality), would influence their later judgements of that child’s credibility. Specifically, we expected that priming adults to think about children’s cheating behaviour (regardless of whether the child actually cheated) during a game would negatively skew their credibility assessment of a child’s later reports. More so, it was expected that, in particular, ratings of children’s honesty and trustworthiness would be reduced more than the perceptions of cognitive ability (i.e., understanding and intelligence). We also anticipated that we would see these reductions in perceived honesty, regardless of whether children *actually* cheated. Given that adults are documented to have a poor ability in detecting children’s deception, we anticipated that differences in perceived credibility would be more strongly related to our priming manipulation (i.e., predictions of children’s cheating behaviour) than whether children *actually* cheated.

**Methods**

**Participants**

Participants consisted of $N = 176$ adults of jury-eligible age in Canada (18+) with a mean age of $M = 21.45$ ($SD = 4.61$), and the majority were female (77.1%). Of the 176 adults who participated, 78 identified as Caucasian (49.4%). Participants were recruited using the University
of Regina psychology participant pool. All participants were compensated 1 course credit for participating, regardless of whether they completed testing.

The study was a 2 (video: cheater, non-cheater) by 2 (priming: primed, controlled) within-subjects design. Participants watched a series of eight, randomized videos (from a pool of 20), featuring a child (aged 7- to 9-years-old) playing a game. The independent variables of interest were adults’ preliminary ratings of children’s morality (i.e., honesty, trustworthiness, and how well the child understood the instructions of the game), with adults’ later perceptions of children’s credibility (i.e., honesty, trustworthiness, truthfulness, believability, intelligence, and how convincing the child was), cheating predictions, and confidence ratings working as our dependent variables.

Measures

Videos. Videos of children participating in a temptation resistance paradigm (TRP) from a previous research study (Zanette & Lee, in preparation) were used, with parental permission, as stimuli in the present experiment. In the previous study, children (54% female) between the ages of 6- and 9-years-old, were asked to participate in a card game honesty task. The child was told that if they got three of six guesses correct, they would win a bag of candy. The researcher and child were in a testing room, separated by a barrier so that the child could not see the cards that the researcher was holding. Children were asked to guess whether the number on the adult’s card was higher or lower than five. The game was manipulated such that children had only one final opportunity to guess the card correctly to win a bag of candy. However, before the child could make their last guess, there was an interruption (cell phone rings), and the researcher left the room abruptly and instructed the child not to peak at the card that had been left on the table (but behind a barrier).

The child was alone in the room for two minutes until the researcher returned. Hidden cameras captured whether the child chose to cheat by peeking at the card. When the researcher
returned, before proceeding with the guessing game, children were asked if they peeked at the card. Here, children who did cheat also lied to the researcher and denied their peeking at the card (i.e., cheaters). Children who did not cheat honestly reported that they had not done so (i.e., non-cheaters). The game continued and the researcher asked the child to guess the number on the final card, as well as other details (e.g., colour of the card).

Participants watched eight videos chosen at random from a pool of twenty. Each chosen video depicted eight different children participating in the card game (60% female, 95% Caucasian). Four of those videos reflected children who ended up cheating (i.e., cheaters), and the remaining four depicted children who did not cheat (i.e., non-cheaters). Each video was divided into two parts: (1) the ‘first 5 guesses’, and (2) the ‘final guess’. Participants watched the first part of each video, the ‘first 5 guesses’, and were asked to complete a questionnaire. Participants were randomly assigned to complete either a priming (see Appendix A) or control questionnaire (see Appendix B) after each ‘first 5 guesses’ video. Then, participants watched the second part of that same video, which depicted the child’s ‘final guess’. Following the ‘final guess’ video, all participants were asked to complete the credibility assessment questionnaire (see Appendix C). Importantly, no participants saw the video recording of whether the child in question actually cheated.

**Priming/Control questionnaire.** Following each video, participants were asked to complete a short questionnaire. Participants were randomly assigned into one of two conditions before watching each video: (1) the primed group, and (2) the controlled group. For half of the participants’ videos, they were randomly asked to complete the priming questionnaire. For the other half the videos, they completed a control questionnaire. The primed group was asked to complete a questionnaire following the ‘first 5 guesses’ video. The priming questionnaire, used to introduce our priming manipulation, asked participants to rate the child’s honesty, intelligence, truthfulness, and how well the child understood the instructions of the game, using a
10-point Likert scale. Furthermore, participants were also asked to make a prediction as to whether or not they thought that the child would cheat during the game and to rate their confidence in that prediction. The purpose of this questionnaire was to prime adults to consider each child’s morality before asking them to make a final decision about the child’s credibility. By priming adults to think about children’s morality, we expected them to judge children’s credibility differently than controlled (i.e., unprimed) adults. For the other half of the videos, participants’ were provided a control questionnaire. This questionnaire asked adults various questions on general characteristics of the video, such as the child and adult’s gender, their clothing, etc. The purpose of the control questionnaire was to give all participants an identical testing experience, to counteract any practice or fatigue effects.

**Credibility assessment questionnaire.** Following the ‘final guess’ video, all participants, regardless of their condition, completed the credibility assessment questionnaire. This questionnaire was based on the two-factor model of credibility, in that it asked questions that were directly related to the perceived honesty and cognitive ability of the child. Participants were asked to rate the child’s honesty, intelligence, trustworthiness, truthfulness, believability, and how convincing the child was. On this questionnaire, participants were also asked to make a final postdiction as to whether or not they think that the child cheated and to rate their confidence in that decision. By asking participants to complete this questionnaire, we had a better understanding of how adults rated the credibility of a child after they reported the details of an event.

**Procedure**

Upon entering the lab, participants were given a consent form (see Appendix D) to carefully review and sign. Once the consent form was signed, participants were given the opportunity to ask questions prior to beginning the testing phase. When participants were
comfortable to begin, the research assistant gave them basic instructions on the procedure of the experiment and instructed participants that they had the right to quit testing if at any point they were no longer interested. Participants were given a tablet, which displayed all the testing materials through a Qualtrics survey. General instructions for the experiment appeared throughout the survey after each step. Once the instructions had been thoroughly read, participants completed a demographics form (e.g., age, ethnicity, occupation; see Appendix E). Following the demographics form, the assessments began. Participants watched a combination of eight videos, which had each been divided into two parts: (1) the ‘first 5 guesses’, and (2) the ‘final guess’. For half of the videos, children will have cheated during a card prediction game and subsequently lied about their cheating (i.e., cheater videos). For the other half of the videos, children did not cheat and, subsequently, told the truth about not cheating (i.e., non-cheater videos). Following each video, participants were asked to complete a short questionnaire based on the video that they had just watched. Once participants watched all eight videos, a message appeared on the screen stating that they had completed the experiment and that their responses had been recorded. At this point, the research assistant gave each participant a debriefing form (see Appendix F) that outlined the true purpose of the study and the implications of the research. Participants were urged to ask any questions should they have any. Once the participant left the lab, they were rewarded one course credit.

**Results**

**Assessing Credibility**

The present study examined participants’ credibility scores according to the two-factor model of credibility (Ross et al., 2003). The assessment of credibility was framed by the dependent variables of interest (i.e.,believability, trustworthiness, truthfulnes, honesty, intelligence, and how convincing the child was). All of these ratings of credibility were significantly correlated (all $p$’s < .001). For this reason, one composite credibility score was
created. This was done by taking the average of each dependent variable (i.e., believability, trustworthiness, truthfulness, honesty, intelligence, and how convincing the child was). Then, an average score for credibility was created by finding the average of the combined dependent variable scores. This analysis was replicated to get a composite credibility score for both the priming questionnaire (i.e., after watching the ‘first 5 guesses’ video) and credibility assessment questionnaire (i.e., after watching the ‘final guess’ video). These composite scores were used for all proceeding analyses to compare credibility ratings across our conditions.

**Judgements of Children’s Credibility Across Cheaters and Non-Cheaters**

**Initial Ratings of Credibility**

A series of one-way repeated ANOVAs compared the effects of priming on credibility ratings made before and after participants were asked to make a prediction about the children's cheating behaviour. The first set of analyses explored differences in how participants judged cheaters from non-cheaters in their initial credibility judgement on the priming questionnaire (i.e., after watching the ‘first 5 guesses’ video). Results of the analysis indicated that there was no significant difference between initial ratings of credibility ($F(1, 159) = 0.08, p = .779$). This would suggest that cheaters and non-cheaters were judged the same after only watching the ‘first 5 guesses’ video.

**Final Ratings of Credibility for Primed Condition**

Additional analyses were conducted to see how final ratings of credibility would differ between primed and controlled (i.e., unprimed) participants on the final credibility assessment questionnaire (i.e., after watching the ‘final guess’ video). A significant main effect was found between participant’s ratings of cheaters and non-cheaters after being primed to consider children’s morality ($F(1, 159) = 56.78, p = .000$). Non-cheaters were rated as more credible ($M =$
6.98, $SD = 1.86$, 95% CI [6.70, 7.27]) than cheaters ($M = 5.76$, $SD = 2.03$, 95% CI [5.45, 6.07]). We believe that these results may be attributed to the fact that participants in this study were able to distinguish between children who cheated and those who did not.

**Final Ratings of Credibility for Controlled (Unprimed) Condition**

After examining the preceding results, we were interested to see whether these results would be replicated for participants who were not primed to consider children’s morality (i.e., control group). A repeated measures ANOVA was conducted to examine how final ratings of credibility (i.e., after watching the ‘final guess’ video) differed between cheater and non-cheater videos when the participant was not previously primed (i.e., controlled). A significant effect was found between participant’s ratings of cheaters and non-cheaters ($F(1, 153) = 44.91$, $p = .000$). These results indicate that non-cheaters were rated as more credible ($M = 6.98$, $SD = 1.83$, 95% CI [6.69, 7.27]) than cheaters ($M = 5.79$, $SD = 2.06$, 95% CI [5.45, 6.11]). These results mimic the comparison of final credibility ratings found for those participants who were in the primed condition. Again, we believe that these results may be attributed to the fact that participants are better able to distinguish non-cheaters from cheaters, and, thus, are rating non-cheaters as more credible.

**Effect of the Priming Manipulation**

**Impact of Priming on Non-Cheater Videos**

An additional series of repeated measure ANOVAs were conducted to explore whether the priming condition had an impact on the final ratings of credibility (i.e., after watching the ‘final guess’ video). The first analysis showed a non-significant impact of priming on ratings of credibility for the non-cheater videos ($F(1, 156) = 0.08$, $p = .780$). This result suggests that participants did not rate credibility differently whether they were primed or controlled (i.e.,
unprimed) after watching videos of children who did not cheat on the task (see Table 1. for the mean and standard deviations of the non-cheater priming condition).

**Table 1**

*Mean and Standard Deviations of Non-Cheater Priming Condition*

<table>
<thead>
<tr>
<th>Credibility</th>
<th>M</th>
<th>SD</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primed Non-Cheaters</td>
<td>6.98</td>
<td>1.86</td>
<td>[6.70, 7.27]</td>
</tr>
<tr>
<td>Controlled Non-Cheaters</td>
<td>6.94</td>
<td>1.85</td>
<td>[6.66, 7.23]</td>
</tr>
</tbody>
</table>

**Impact of Priming on Cheater Videos**

A second analysis also revealed a non-significant impact on the final ratings of credibility (i.e., after watching the ‘final guess’ video) for the cheater videos ($F(1, 155) = 0.01, p = .911$). This result suggests that participants did not rate credibility differently whether they were primed or controlled (i.e., unprimed) after they unknowingly watched videos of children who did cheat on the task (see Table 2. for the means and standard deviations for the cheater priming condition).

**Table 2**

*Mean and Standard Deviations of Cheater Priming Condition*

<table>
<thead>
<tr>
<th>Credibility</th>
<th>M</th>
<th>SD</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primed Cheaters</td>
<td>5.76</td>
<td>2.03</td>
<td>[5.45, 6.07]</td>
</tr>
<tr>
<td>Controlled Cheaters</td>
<td>5.75</td>
<td>2.02</td>
<td>[5.44, 6.07]</td>
</tr>
</tbody>
</table>

**Lie Detection Across Conditions**

*Initial Prediction of Cheating Behaviour*
A repeated measures ANOVA was conducted to see whether there was a difference in participants initial prediction on the priming questionnaire as to whether the child in the ‘first 5 guesses’ video would end up cheating on the task. A non-significant effect was found ($F(1, 174) = 0.30, p = .583$). This result indicates that there was no difference in participants’ prediction as to whether the child would cheat, regardless of whether they watched a cheater or non-cheater video (see Table 3 for the proportion of predicted cheaters after watching the ‘first 5 guesses’ video).

### Table 3

<table>
<thead>
<tr>
<th>Lie Prediction</th>
<th>$N$</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheater (Correct Prediction)</td>
<td>176</td>
<td>0.47</td>
</tr>
<tr>
<td>Non-Cheater (Incorrect Prediction)</td>
<td>176</td>
<td>0.45</td>
</tr>
</tbody>
</table>

**Final Judgement of Cheating Behaviour**

**Primed Postdiction of Cheaters Versus Non-cheaters.** Another repeated measures ANOVA was done to explore if there was a difference in postdictions (final judgements of cheating behaviour) after watching the ‘final guess’ video. This analysis compared the postdictions of cheaters and non-cheaters who were primed by the priming questionnaire. A significant effect was found in this analysis ($F(1, 173) = 52.07, p = .000$). This analysis suggests that participants in the primed group rated cheaters and non-cheaters the same in terms of their cheating behaviour. According to these results, primed participants were not very accurate in their cheating postdictions. During this test, we found that, on average, the proportion of participants that incorrectly guessed that the child cheated was higher than that of correctly
guessing the child’s cheating behaviour (see Table 4 for the proportion of correct and incorrect guesses)

**Controlled Postdiction of Cheaters Versus Non-Cheaters.** Another repeated measures ANOVA was done to explore if there was a difference in postdictions (final judgements of cheating behaviour) after watching the ‘final guess’ video. This analysis compared the postdictions of cheaters and non-cheaters who were controlled (i.e., unprimed) by the control questionnaire. A significant effect was also found during this analysis ($F(1, 174) = 29.05, p = .000$). Parallel to the previous analysis, this also suggests that there was a difference in how controlled (i.e., unprimed) participants rated cheaters and non-cheaters in terms of their cheating behaviour. However, this analysis found that, on average, the proportion of controlled participants that correctly guessed that the child cheated was higher than that of incorrectly guessing the child’s cheating behaviour (see Table 4.).

**Table 4**

*Final Proportion of Postdicted Cheaters After ‘Final Guess’ Video*

<table>
<thead>
<tr>
<th>Lie Detection</th>
<th>Controlled (Unprimed)</th>
<th>Primed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$N$</td>
<td>Proportion</td>
</tr>
<tr>
<td>Cheater</td>
<td>176</td>
<td>0.57</td>
</tr>
<tr>
<td>Non-Cheater (Correct Guess)</td>
<td>176</td>
<td>0.29</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comparing Cheater and Non-Cheater Postdictions Across Conditions**

Another repeated measures ANOVA was done to explore whether there was a difference between cheater and non-cheater postdictions after being either primed or controlled (i.e.,
unprimed) after watching the ‘final guess’ video. No significant effect was found for cheater videos across the controlled (i.e., unprimed) or primed condition \((F(1, 173) = 0.00, p = .993)\). Similarly, no significant effect was found for non-cheater videos across the controlled (i.e., unprimed) or primed condition either \((F(1, 174) = 0.23, p = .632)\). Both results suggest that the priming condition did not influence how often participants guessed that the child in the videos cheated. These results also confirm our previous analyses which suggest that the priming manipulation did not have an impact on ratings of children’s credibility for both cheater and non-cheater videos.

**Confidence Ratings**

**Initial Prediction Confidence Ratings**

A paired t-test was conducted to analyze participants’ initial confidence ratings (i.e., after watching the ‘first 5 guesses’ video) when predicting whether the child would cheat on the task. This analysis compared the difference in confidence ratings between cheater and non-cheater videos. A non-significant effect was found between cheater \((M = 6.32, SD = 2.26)\) and non-cheater \((M = 6.23, SD = 2.17)\) conditions; \(t(174) = -0.48, p = .629\). This suggests that participants were not more or less confident in their cheating predictions on the priming questionnaire when watching both cheater and non-cheater ‘first 5 guesses’ videos.

**Final Postdiction Confidence Ratings**

A paired t-test was conducted to analyze controlled (i.e., unprimed) participants’ final confidence ratings after watching the ‘final guess’ video. This analysis compared controlled confidence ratings on the credibility assessment questionnaire between cheater and non-cheater ‘final guess’ videos. A significant effect was found between controlled cheater \((M = 4.10, SD = .31)\) and controlled non-cheater \((M = 2.07, SD = 2.59)\) conditions; \(t(173) = -6.58, p = .000\). This
suggests that participants who watched non-cheater videos were considerably less confident when making their final judgements about the child’s cheating behaviour on the credibility assessment questionnaire (i.e., after watching the ‘final guess’ video). Consequently, participants were more confident when judging cheater videos.

Another paired t-test was conducted to analyze primed participants’ final confidence ratings after watching the ‘final guess’ video. This analysis compared primed confidence ratings on the credibility assessment questionnaire between cheater and non-cheater ‘final guess’ videos. A significant effect was found between primed cheater ($M = 4.19, SD = 3.15$) and primed non-cheater ($M = 2.17, SD = 2.72$) conditions; $t(173) = -6.88, p = .000$. These results also suggest that participants who watched non-cheater videos were considerably less confident when making their final judgements about the child’s cheating behaviour on the credibility assessment questionnaire (i.e., after watching the ‘final guess’ video). Consequently, participants were more confident when judging cheater videos. More so, these results also support our previous analyses which suggest that the priming manipulation did not have an impact on confidence ratings.

*Comparing Initial Confidence and Final Confidence Ratings*

The combined average means and standard deviations were taken for primed participants’ confidence ratings for cheater and non-cheater videos. These values were used in a paired t-test to explore how confidence may have changed from ratings on the priming questionnaire (i.e., after watching the ‘first 5 guesses’ video) to the credibility assessment questionnaire (i.e., after watching the ‘final guess’ video). A significant difference was found between credibility ratings on the priming questionnaire ($M = 6.28, SD = 2.22$) and credibility ratings on the credibility assessment questionnaire ($M = 3.18, SD = 2.93$); $t(350) = 11.16, p > .0001$. This suggests that participants were less confident when assigning a final judgement of whether or not the child
PERCEPTIONS OF CHILD WITNESSES

cheated than they were when initially predicting the child’s likeliness of cheating (see Table 5. for the values of the paired differences t-test).

Table 5

Paired Samples T-Test Values for Paired Differences in Confidence Ratings

<table>
<thead>
<tr>
<th>Confidence Ratings</th>
<th>M(SD)</th>
<th>95% CI</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial – Non-Cheater</td>
<td>-0.10(2.06)</td>
<td>[-0.48, 0.29]</td>
<td>-0.48</td>
<td>174</td>
<td>.629</td>
</tr>
<tr>
<td>Initial – Cheater</td>
<td>-0.20(3.88)</td>
<td>[-2.60, -1.44]</td>
<td>-6.88</td>
<td>173</td>
<td>.000</td>
</tr>
<tr>
<td>Final – Non-Cheater Control</td>
<td>-2.03(4.06)</td>
<td>[-2.63, -1.42]</td>
<td>-6.58</td>
<td>173</td>
<td>.000</td>
</tr>
<tr>
<td>Final – Cheater Primed</td>
<td>-2.02(3.88)</td>
<td>[-2.60, -1.44]</td>
<td>-6.88</td>
<td>173</td>
<td>.000</td>
</tr>
</tbody>
</table>

Discussion

The present study aimed to explore whether preconceived beliefs of children’s morality would impact adults’ perception of children’s credibility. We were also interested in observing how adults’ ability to detect when children are lying and their confidence in those decisions may change across our conditions. Importantly, participants in this study were never informed as to whether the children in the videos cheated. The findings demonstrate that priming had no effect on how children’s credibility was assessed for both cheater and non-cheater videos. The results did indicate, however, that children who did not cheat on the task were deemed to be more credible than children who cheated in both the primed and controlled (i.e., unprimed) condition. Similarly, participants were significantly able to differentiate between the children who cheated (and lied about it suggesting they did not cheat) and children who did not cheat (and told the
truth). It was also observed that confidence ratings consistently decreased in final cheating postdictions (i.e., after watching the ‘final guess’ video) when compared to initial cheating predictions (i.e., after watching the ‘first 5 guesses’ video).

**Priming, Decision-Making, and Credibility**

*Priming and Decision-Making*

Previous research suggests that priming does impact adults’ later decision-making (e.g., Kliger and Gilad, 2012; Lu & Davis, 2018; Ratcliff & McKoon, 1995; Zhang et al., 2016). The present study did not find results that support these claims. Analyses for the present study did not find any evidence that the priming condition impacted how adults’ rated children’s credibility. Subsequently, our analyses also did not find evidence to support the presence of a forensic confirmation bias which suggests that priming biases the interpretation of legal evidence (Kassin et al., 2013). However, the contradictory results from the present study may be attributed to the design of the study rather than its conditions. The present study used a within-subjects design which assigns each participant to all of the possible conditions. As such, each participant viewed both cheater and no-cheater videos, and, depending on the video, they completed either the priming questionnaire (i.e., they were primed) or the control questionnaire (i.e., they were controlled/unprimed). Initially, a within-subjects design seemed appropriate because the option to compare one participant’s results in all of the possible conditions would have been available. However, an analysis of the results demonstrated evidence to suggest that the priming manipulation was not effective. This may be due to carryover effects, because each participant was exposed to both the priming and control condition. Thus, even if the priming questionnaire was an effective manipulation, this manipulation may have carried over to the subsequent videos since there was no delay in time between video watching. Furthermore, it may also be inferred
that the method for priming adults, using the priming questionnaire, may not have been effective in itself. It may be said that the questions asked on the priming questionnaire pertaining to the child’s morality (i.e., honesty, intelligence, truthfulness, and how well the child understood the instructions of the game) may not have been salient enough to elicit a response in the subsequent credibility assessment questionnaire. In retrospect, it may have been more useful to assign each participant to either the priming condition or the control condition prior to testing.

**Credibility Ratings**

The present study chose to follow the two-factor model of credibility in assessing how adults judged children’s credibility after participating in a temptation resistance paradigm. Previous research on both children’s honesty and cognitive ability, as proposed by the two-factor model, is conflicting. Some studies have found that children are perceived to be equally as credible, or sometimes more credible than adults (e.g., Bottoms & Goodman, 1994; O’Connor, Lyon, Evans, 2019), while others have found that children are perceived to be less credible (e.g., Crossman & Lewis, 2006; Leippe & Romanczyk, 1987; Masip et al., 2008; Ross et al., 2003). The present study, however, examined how adults’ ratings of children’s credibility would differ from watching a combination of cheater and non-cheater videos in which they did not know the outcome (i.e., they were unaware if the child cheated or not).

Results from the present study found that adults rated credibility higher after watching a non-cheater video (i.e., a child who did not cheat and told the truth) compared to a cheater video (i.e., a child who cheated and lied). These results were replicated in both the controlled (i.e., unprimed) and primed condition. Consequently, these outcomes in credibility ratings also contradict the theory that priming impacts decision-making. The results also seem to suggest that adults are able to distinguish children who did not cheat (i.e., non-cheaters) from those who did
(i.e., cheaters). As a result, participants rated children who were honest about their behaviour (i.e., non-cheaters) more credibly. The present study may also support the dangerous decisions theory (DDT), as proposed by Porter and Brinke (2009). The DDT suggests that jurors and judges analyze witnesses' facial and emotional expressions, thus producing and triggering a series of problematic decisions and judgements about that witness’s credibility (Porter & Brinke, 2009). Although we did not collect responses regarding how participants chose to assess credibility, we can infer that participants may have been persuaded to make decisions after carefully observing the children’s facial expressions and gestures.

**Lie Detection**

Previous studies examining adults’ ability to detect children’s lies is inconsistent (i.e., Landström, 2017; Talwar et al., 2011). Landström (2017) found that adults were no better than chance at accurately detecting when children are lying. On the contrary, Talwar et al. (2011) found that adults were able to detect children’s deceit. The present study found that adults correctly guessed that the child was cheating 57% of the time if they were controlled (i.e., unprimed) which is slightly above chance levels and consistent with Talwar et al. (2011). Subsequently, participants who were primed by the priming questionnaire were only able detect children’s lies 29% of the time which closely aligns with the findings from Landström (2017). Thus, adults’ ability to detect children’s dishonest statements is unpredictable and may vary depending on individual differences and context.

Similarly, previous research on adults’ perception of children’s morality is equally as conflicting (i.e., Crossman & Lewis, 2006; Edelstein et al., 2006; Evans et al., 2016; Masip et al., 2008; Strömwall & Granhag, 2005). Some studies have found evidence to support a truth bias (i.e., Edelstein et al., 2006; Evans et al., 2016; Strömwall & Granhag, 2005) while others have
emphasized a lie bias (i.e., Crossman & Lewis, 2006; Masip et al., 2008). Results from the present study do not suggest the presence of either a lie or truth bias. The analyses on adults’ accuracy in detecting children’s lies varies considerably depending on the condition. On one hand, our results revealed that participants incorrectly guessed that the child cheated 57% of the time after being primed. Subsequently, only 30% of primed participants correctly labelled the child a cheater after watching a video where the child did in fact cheat. The opposite was found when analyzing controlled (i.e., unprimed) participants’ lie detection. In the controlled (i.e., unprimed) condition, adults’ correctly guessed that the child was a cheater 29% of the time and incorrectly guessed that the child was telling the truth 57% of the time. Overall, the lie detection analyses do not distinctly point to the presence of either a truth or lie bias.

Confidence Ratings

Lie detection is only one aspect in assessing children’s statements. Another component that is extremely important is how confident adults are in their ability to detect children’s lies. Evans et al. (2016) reported that adults are generally confident in their lie detection abilities, regardless of how accurately they perform. The present study found interesting results when observing participants’ confidence ratings. After watching the ‘first 5 guesses’ video, adults were fairly confident when predicting whether children would cheat on the priming questionnaire. Conversely, credibility ratings dropped considerably on the credibility assessment questionnaire after watching the ‘final guess’ video. This result was consistent for both the primed and controlled condition. From these findings, we can infer that adults may have more hesitation when asked to make a definite judgement of children’s guiltiness. More specifically, Rothbart and Snyder (1970) found that confidence in participants’ predictions was significantly higher than confidence in their postdictions for an uncertain event (i.e., participating in a dice game).
This outcome was partly attributed to the fact that the weight of assigning a final decision aroused a sense of uncertainty and suspicion in the subjects (Rothbart & Mark, 1970). We can apply this hypothesis to the legal context and infer that jurors and judges may be less confident in their decisions when asked to make a definitive judgement about the honesty or dishonesty of a testimony. An interesting future direction would be to examine if these results were consistent if adults were asked to rate other adults’ deviant behaviour. Ekman et al. (Ekman & O’Sullivan, 1991; Ekman et al., 1999) found evidence to suggest that adults’ have a truth bias towards children over adults. Thus, participants may only have been hesitant to make a final verdict because it was children’s behaviour that was on the line. The opposite may be found when assessing adults, those whom have full the cognitive abilities necessary to make moral decisions.

**Implications**

The present study will be a great asset to the pre-existing literature on the impact of bias on adults’ decision-making. The study did not find evidence to support an impact of priming on adults’ ratings of children’s credibility which is positive as it suggests that jurors and judges may not be as susceptible to preconceived beliefs as we initially believed. The present study also did not reveal a lie or truth bias which, again, is a good outcome in the legal context. Biases of any kind, whether it is a lie bias or a truth bias, will impact how children are viewed in the criminal justice system. The goal is to have children assessed based on how credible they actually are, rather than how credible adults believe they are. The presence of a lie bias would have extreme implications for the perception of children’s credibility in the courtroom. Judges or jurors may be subconsciously disregarding a child’s testimony because they have a bias that automatically leads them to believe that the child’s statements are dishonest. Alternatively, the presence of a truth bias would be equally as damaging. Not all reports of events should immediately be
perceived to be honest statements, especially when testimonies are often critical in determining a final verdict in the courtroom (McCauley & Parker, 2001).

Furthermore, the present study demonstrates that children who were actually being honest about an event are viewed by adults as being more credible. This is optimistic because it suggests that adults may be able to differentiate children who are lying from those that are telling the truth. In application to the legal system, understanding the extent of adults’ ability to detect children’s deception is critical. Children are often either victims or witnesses to crime, however, their testimonies are infrequently used as critical pieces of evidence for prosecution due to being perceived as unreliable. If law related personnel are accurate in discriminating honest from dishonest reports of events before the child is asked to testify, children’s honest testimonies may not continue to be the focal point of scrutiny. This is a hopeful finding given the fact that adults’ accuracy in gauging the honesty and credibility of children’s statements is often of utmost importance. Although the present study did not reveal any impact of bias in adults’ credibility ratings, by continuing to expand the research on this topic we may be able to expose the prevalence of bias in legal decision-making. More so, this research may trigger future researchers to study the factors that lead to preconceived beliefs, in hopes of excluding individuals from court who may have a subconscious bias against a defendant or witness.

Limitations and Future Directions

Limitations

As previously stated, our results indicated that priming had no impact on adults’ ratings of children’s credibility. This may be attributed to that fact participants were, in fact, not influenced by our priming manipulation. After watching the ‘first 5 guesses’ video, some participants were asked to complete the priming questionnaire. The priming questionnaire asked
participants to rate the child’s honesty, intelligence, truthfulness, and how well the child understood the instructions of the game. This questionnaire also prompted participants to make a prediction as to whether or not they thought that the child would end up cheating on the task. The goal of the priming questionnaire was to provoke participant’s to consider the child’s morality before asking them to make a subsequent judgement about the child’s credibility. Thus, these results may suggest that our priming manipulation was not salient enough to elicit a significant response. Alternatively, the ineffectiveness of the priming manipulation may also be due to carryover effects. Participants alternated between being watching primed and controlled videos, and, as such, they may have made decisions based off preceding exposure to the priming condition. A possible solution would be to replicate this study but assign participants to a specific condition (i.e., primed or controlled) prior to testing to eliminate the possibility of carryover effects.

The two-factor model of credibility, as proposed by Ross et al. (2013), was the foundation for the present study. This model, however, was first implemented to assess children’s credibility during sexual assault cases (Ross et al., 2013). As the present research aims to examine children’s credibility in response to a minor offense (i.e., cheating in a game), this model may not be as applicable to real life scenarios. Children’s credibility for real court cases, which include more serious transgressions, must be assessed on a case by case basis given the specific context the crime (Harvey, 2017; Nunez et al., 2011).

**Future Directions**

As previously mentioned, the ineffectiveness of the priming condition may be due to various circumstances. As a result, it may be beneficial to reconduct the study after making some adjustments. Primarily, it is likely that we would see alternative results if we switched to a
between-subjects design. By assigning each participant to either the primed or controlled condition, opposed to both conditions, we would be able to counteract any carryover effects that may have occurred. It may also be worthwhile to decrease the number of videos that participants watch to eliminate the possibility of a fatigue effect (i.e., participant losing interest during the test).

Future research may also benefit from studying what factors may lead to individuals forming a bias against children’s credibility. Prospective research on these factors may help law officials to be better able to omit jurors form the courtroom who may be unable to make unbiased decisions. Although screening tools do currently exist to aid in this process, they are only effective when jurors are somewhat aware of the biases they carry. Thus, it may not protect from the pre-existing beliefs that many individuals unknowingly have. While the present study aimed to examine the impact of such beliefs, it did not account for how individuals obtain the biases that seemingly do impact our judgements according to pre-existing research (Fraser & Stevenson, 2014).

**Conclusion**

Understanding the extent of how pre-existing beliefs impact decision-making is imperative. This knowledge is significantly more important when these biases interfere with the decisions individuals make in a legal context. Children, who are frequently either victims or witnesses to crime, are often scrutinized due to a common disbelief that they can accurately report the details of an event. The ramifications of a biased court room can be detrimental. This detriment becomes more substantial if individuals cannot identify honest from dishonest statements and do so with confidence. In order to determine a defendant’s innocence or guilt, one must be extremely confident in the decisions that they make. The present study found that
truthful children are perceived by adults to be the most credible. Furthermore, participants’ confidence significantly decreased when asked to make a final decision as to the child’s cheating behaviour. Participants were the least confident when guessing that non-cheaters (i.e., children who were telling the truth) were guilty of cheating. This is troublesome as it does not explain why these individuals rated children as guilty if they were not confident they were making the right decision. Future research is necessary to continue exploring the influence of priming on later decision-making. Understanding the extent of the biases that adults have towards children will help enhance the current practices for dealing with children as witnesses to crime.
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Appendix A: Priming Questionnaire

FIRST SET OF QUESTIONS (HALF OF PARTICIPANTS):

Based on what you have seen so far:

1. In general, how intelligent do you think the child is?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
</table>
   Not at all intelligent | Very intelligent

2. In general, how honest do you think the child is?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
</table>
   Not at all honest | Very honest

3. In general, how trustworthy do you think the child is?

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   Not at all trustworthy | Very trustworthy

4. How well did the child understand what the adult said to them?

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   Not at all understood | Fully understood

5. Do you think that the child in the video will cheat by breaking the rules of the game?

   | Yes | No |

6. “How confident are you in your judgement that the child will or will not cheat in the game?

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   Not at all confident | Very confident
Appendix B: Control Questionnaire

FIRST SET OF QUESTIONS (HALF OF PARTICIPANTS):

Based on what you have seen so far:

1. Was the child in the video male or female?

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2. What colour clothing was the child wearing in the video?
   - Blue
   - Red
   - Black
   - Green
   - Pink
   - Other ______

3. In your opinion, how old do you think the child in the video is?
   - 7
   - 8
   - 9
   - 10
   - Other _____

4. Was the adult in the video male or female?

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5. Why did the adult leave the room during the card game?
   - Someone knocked on the door and interrupted
   - The child wanted to end the game
   - The adult heard their phone ringing
   - The adult did not leave the room
Appendix C: Credibility Assessment Questionnaire

SECOND SET OF QUESTIONS (ALL)

Now that you have heard the child’s answers, please answer the below questions as best as possible:

1. How **believable** was the child when they said they did not peek?

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Not at all believable | Very believable

2. In general, how **trustworthy** do you think the child is?

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Not at all trustworthy | Very trustworthy

3. How **intelligent** do you think the child is?

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Not at all intelligent | Very intelligent

4. How **truthful** was the child?

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Not at all truthful | Very truthful

5. How **honest** do you think the child was?

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Not at all honest | Very honest

6. How **convincing** do you think the child is?

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Not at all convincing | Very convincing

7. How **confident** was the child when answering the questions?

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Not at all confident | Very confident

8. In your opinion, did the child **lie** or tell the **truth** to the adult about following the rules of the game?

   | The child **lied** (i.e., the child broke the rules) | The child told the **truth** (i.e., the child followed the rules) |
9. How **confident** are you in your decision as to whether or not the child lied or told the truth to the adult?

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<td>Very confident</td>
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Appendix D – Consent Form

**Project Title:** Perceptions of Child Witnesses

**REB Approval:** This project was approved by the Research Ethics Board, University of Regina on October 1, 2019 (REB File: 2019-150).

**Researcher(s):** Mackenzie Furlong (Psychology Honours Student), maf266@uregina.ca

**Faculty Supervisor:** Dr. Kaila Bruer, Assistant Professor, kaila.bruer@uregina.ca.

**Research Assistants:** Siham Hagi, & Kanishka Kokal.

**Co-investigator(s):** Dr. Kang Lee (U of T) and Sarah Zanette (U of T PhD student)

**Purpose of the Research:** The purpose of this study is to explore whether preconceived beliefs of children’s morality will impact adults’ perceptions of children’s credibility.

**Procedures:** Participants will be asked to view a series of eight, 1-2 minute videos of children participating in a previous experiment. The previous experiment, conducted at the University of Toronto (UofT REB Protocol reference number: 25664), invited children into the lab to complete an honesty task. The children played a guessing game using cards with an experimenter, and were put in a situation where they could cheat and lie, or not cheat and be truthful. Participants will be asked to complete a questionnaire(s) to help us understand whether preconceived beliefs of children’s morality will impact adults’ perceptions of children’s credibility. The task is expected to take approximately 45 minutes of your time.

**Potential Risks:** It is possible that asking participants to judge the honesty of a child will create negative feelings. If you are negatively impacted by this, please contact University of Regina Counselling Services at 251 Riddell Centre or by calling 306-525-5333.

**Potential Benefits:** Your participation in this project helps us learn about different factors that can negatively impact the credibility of children when involved in the criminal justice system.

**Compensation:** If you choose to participate in this study, you will receive 1 course credit regardless of your performance on the tasks.

**Confidentiality:** If you agree to participate, we will maintain the strictest standards of confidentiality as required by the law. Your name will not be associated with the data collected in the study. Information you provide to us will be confidential and we will identify your information by a participant number only, and all personal information will be stored in a secure location at the University of Regina. The only individuals who will know your identity will be the research assistants who run the study and the principal investigator. Any information obtained from this study will be kept confidential and only group results will be reported. Please do not put your name or other identifying information on the study materials. These group results
are intended to be published in academic journals, published in theses, presented at conferences, and shared with granting agencies who funded or supported the research.

**Storage of Data:** This consent form will be stored in a locked filing cabinet, separate from any data that is gathered. Once the study in completed, data will be stored in a locked filing cabinet in Dr. Kaila Bruer’s office/lab space, and any electronic information will be password protected for a period of 7 years. After this period, all paper materials will be shredded and electronic files will be deleted. Our co-investigators will also have access to the data collected from this study up until the data is no longer usable.

**Right to Withdraw:** It is important to note that you are under no obligation to participate. If at any time you decide to discontinue participation in the study (even if you have already signed this form), you may withdraw without penalty. Any withdrawal will not affect your academic status, and/or access to, or continuation of, services provided by the University. Should you decide to withdraw, please inform the researcher anytime during the study, including at the very end. If you withdraw prior to the end of the experiment, your data will not be used in the final results and will be destroyed, if desired. After this time, the researcher will not be able to identify your responses and it may not be possible to withdraw your data. If you do not want to participate in research, some course instructors offer alternative methods to acquire course credit. We encourage you to speak with your course instructor.

**Follow-up:** To obtain summary results from the study, please email the principal investigator (maf266@uregina.ca or kaila.bruer@uregina.ca).

**Questions or Concerns:** This project has been approved on ethical grounds by the UofR Research Ethics Board on (October 1, 2019). Any questions regarding your rights as a participant may be addressed to the committee at (306-585-4775 or research.ethics@uregina.ca). Out of town participants may call collect. Questions about this research may also be directed to the principal investigator, Mackenzie Furlong (306-515-2178, maf266@uregina.ca), or Dr. Kaila Bruer (306-337-3227; kaila.bruer@uregina.ca) in the Psychology Department at the University of Regina.

**Consent:** Your signature below indicates that you have read and understand the description provided; I have had an opportunity to ask questions and my/our questions have been answered. I consent to participate in the research project. A copy of this Consent Form has been given to me for my records.

____________________________  ______________________  ____________________
**Name of Participant**  **Signature**  **Date**

__________________________  _______________________  ________________
**Researcher’s Signature**  **Date**
Appendix E: Demographics

The following questions are your own demographics

1. What gender do you identify with?
   - Male
   - Female
   - Non-binary
   - Two-Spirit
   - Not listed: _____________
   - Prefer not to disclose

2. Your Age (in years): __________

3. Is English your first language?  Yes  No
   If not, how many years have you been speaking English? ______

4. What is your ethnicity?: ______________

5. Nationality (please check one)
   - Canadian citizen _________
   - Permanent resident __________
   - Student Visa ________________
   - Other (please specify) __________

6. Are you currently a student? Yes  No

7. What is your current occupation (other than student, if applicable)?
   __________________________

8. In the past 1 year, how many interactions would you say you have had with 6- to 8-year-old children (please choose only one):
   - Daily ______
   - 3-5 times per week _____________
   - 1-2 times per week _____________
   - 1-3 times per month_____________
   - 8-11 times per month___________
   - 1 – 7 times per year_____________
   - Other _______________________


What are we trying to learn with this research?

This experiment is about adult’s perception of child witnesses. Each participant was shown a series of 8, one-minute videos. In these videos, children were put in a situation where they were given an opportunity to cheat in an honesty task, and, in turn, lie or tell the truth to a researcher. Many children decided to cheat and lie about it, while many others chose not to cheat and remain truthful. Participants were asked to complete series of questionnaires that were created to discover more about how adults perceive deception in children, and how this impacts children’s credibility. The purpose of this research is to explore how context impacts adults’ perceptions of children’s credibility. By asking adults to make preliminary judgments of children’s credibility, we anticipate this will create a context (mental framework) that will, in turn, impact how adults rate the credibility of children. From this research, we hope to have a better understanding of whether preconceived beliefs of children’s morality will impact adults’ perceptions of children’s credibility.

Why is this important to psychologists or the general public?

It is becoming a more frequent occurrence that children are asked to testify in court either as a victim of, or witness to, a crime. For many of these crimes, the only evidence available for scrutiny is the child's testimony. As such, there is a great of interest in understanding how children’s testimony or reports of an event are believed by those receiving the information. Whether the receiver believes the child can play an important role in: (a) whether a child’s allegations will be investigated; and (b) whether a child’s testimony will be considered during court-room decisions by judges and juries. Having a better understanding of how adults perceive children’s credibility is critical to understanding how we can better incorporate children in the courtroom when testifying.

Where can I learn more?

If you wish to learn more about how children’s credibility is addressed in the Canadian justice system, please read the following report:


Broader Issues: Innocence Project: To learn about the larger issues of jury perceptions of evidence, eyewitness memory, and wrongful convictions, go to: http://www.innocenceproject.org/

What if I want to talk to someone after participating in this study?

If, for any reason, you feel like you want to someone, please contact counselling services, located in room 251 Riddell Centre, University of Regina. You can contact them at 306-585-4491.

What if I have questions later?

If you wish to discuss this research any further feel free to contact: Mackenzie Furlong (Principal Investigator, maf266@uregina.ca, 306-515-2178) or Dr. Kaila Bruer (Supervisor, kaila.bruer@uregina.ca; 306-337-3227). If you should have any ethical concerns about this study please contact, the Chair of the Research Ethics Board at 585-4775 or by e-mail: research.ethics@uregina.ca.

At this time we would like to thank you for taking the time to take part in this study. Your participation has been greatly appreciated. THANK YOU!