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**Children as alibi witnesses: The effect of age and confidence on mock-juror decision making**

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### **Abstract**

The study investigated the influence of child alibi witness age and confidence upon mock juror decision making. Participants (N = 145) read a mock murder trial transcript containing the evidence of a defendant and corroborating child alibi witness. Six versions of the trial transcript were created manipulating the alibi witness' age (8, 12, 16 years of age) and the confidence they displayed (high, low) whilst giving evidence. Despite a tendency towards returning not-guilty verdicts, no associations between alibi witness age, confidence and verdicts were found. However, confident alibi witnesses were perceived as more honest, accurate, and reliable than unconfident alibi witnesses. The findings do not support the two-factor model of witness credibility, but do suggest that the alibi scepticism commonly found towards adult alibi witnesses may not extend as strongly towards children corroborating the defendant's alibi. More research is required before policy recommendations can be made.

**Key words:** child witness, alibi, honesty, deception, witness confidence, two-factor model of credibility, jurors

## **Children as alibi witnesses: The effect of age and confidence on mock-juror decision making**

Children are frequently witnesses in court (Pike, Brace, & Kynan, 2002) creating a need for research into juror's perceptions of child witness' accuracy (Flin, Boon, Knox, & Bull, 1992). A child's testimony can be a significant feature used to decide a defendant's guilt (Talwar & Crossman, 2012) and past literature has shown that the eyewitness testimony of a child is essential to mock jurors (Myers, Redlich, Goodman, Prizmich, & Imwinkelried, 1999). Moreover, witness confidence has long been demonstrated to be a key factor in jurors' decision making (Wheatcroft, Wagstaff, & Manarin, 2015). Alibi evidence is a rapidly growing area of research (Burke & Marion, 2012) with research demonstrating that alibi evidence is commonly perceived as deceptive (Allison, Jung, Sweeney, & Culhane, 2014) and something to be suspicious of (Olson & Wells, 2004; Olson, 2013; Price & Dahl, 2014). However, relatively little research has examined evaluations of children in the role of alibi witnesses (Dahl & Price, 2012), rather than eyewitnesses for the prosecution, so it is unclear as to whether this common view of adult alibi witnesses, also extends to evaluations of child alibi witnesses. The current paper addresses this issue, by assessing the effect of age and confidence of a child alibi witness upon mock-juror decision making.

### **Accuracy of Child Witnesses**

The majority of the general population consider the age of an eyewitness an important criteria when assessing the accuracy of their evidence (Golding, Dunlap, & Hodell, 2009; Pozzulo & Dempsey, 2009a). There is extensive literature regarding the effect on mock jurors of children as prosecution eyewitnesses (Newcombe & Bransgrove, 2007; Pozzulo & Dempsey, 2009b; Pozzulo, Lemieux, Wells, & McCuaig, 2006). The two-factor model of credibility states that jurors evaluate the evidence of children based on the honesty and cognitive ability they believe the child to possess (Leippe & Romanczyk, 1987; Ross, Dunning, Toggia, & Ceci, 1990). It further suggests that whilst children are seen as increasing in cognitive ability as they mature, they are still perceived as less cognitively able than adults (Ross, Jurden, Lindsay, & Keeney, 2003).

Children are generally believed to be more honest than adult eyewitnesses (Bottoms & Goodman, 1994; Ross et al., 2003; Connolly, Price, & Gordon, 2010). In fact, younger children are regarded by some as being innately honest and incapable of deception (Nunez,

Kehn, & Wright, 2011). As being deceitful requires a particular level of executive functioning (Evans & Lee, 2011), and cognitive aptitude (Lee, 2013), children below the age of three years struggle to lie effectively (Talwar & Lee, 2008) despite attempting to deceive (Vrij, 2008). Childrens' poor deception ability is likely due to a lack of inhibitory control and underdeveloped working memory, essential components of suppressing the truth and keeping both the lie and the truth available to recall (Evans & Lee, 2013). Some research suggests that the executive functioning required for deception (such as inhibitory control and working memory) is already developed in pre-schoolers (for example Hughs & Ensor, 2005; Rennie, Bull, & Diamond, 2004; Talwar & Lee, 2008), thus explaining why children as young as four have been found to be cognitively capable of lying (Talwar & Crossman, 2012). A well-formed ability to lie is commonly present from 4 years of age although these lies can often be easily detected (Newton, Reddy, & Bull, 2000). This is related to the development at this age of a key component in the ability to deceive; an appreciation that the listener does not always know the truth of the situation and is therefore susceptible to false beliefs (Talwar & Crossman, 2012). However, the main difficulty in deception amongst young children (below approximately 6 years of age) relates to their difficulty in fully considering the listener's perspective and possessing theory of mind (Broomfield, Robinson, & Robinson, 2002). By the age of eight children are able to conceal successfully their deception under questioning (Talwar, Gordon, & Crossman, 2007). A limitation with all research on this topic is the tendency to focus upon white lies about trivial activities due to the ethical problems posed by instructing children to behave in a manner that adults commonly teach them to be wrong (lying), and imposing more realistic forensic deception situations upon vulnerable children. Therefore, there are still many unknowns in relation to the deception ability of young children within forensic contexts (Evans & Lee, 2013).

Based on common perceptions of poor deception ability in children, it could be expected that the younger witnesses would be evaluated as more credible witnesses than older children and adults (Castelli, Goodman, & Ghatti, 2005; Goodman-Delahunty, Cossins & O'Brien, 2010). However, as children's memory is inferior to adult memory (Bruer & Pozzulo, 2014) and they are more susceptible to suggestibility (Goodman & Melinder, 2007), children are not seen as more credible than adults in the courtroom (Bruer & Pozzulo, 2014; Klemfuss & Ceci, 2012). Wright, Memon, Skagerberg, and Gabbert (2009) discovered that mock-jurors anticipated the perceived memory capabilities of children increased between three and six years of age, after which they remained stable. Early research on the topic of

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children's memory indicated that children were more prone to incorporate erroneous information suggested by interviewers into their memory accounts (Klemfuss & Ceci, 2012). Although these findings led to enhanced scepticism of child witnesses in court, recent research indicates that memory distortion due to suggestibility can be minimised with appropriate questioning (Klemfuss & Ceci, 2012). Furthermore, children can be just as accurate at making identifications as adults can when these appropriate questioning techniques are utilised (Pozzulo & Balfour, 2006), although there is evidence that recommended question styles are not always adopted in court (Ahern, Stolzenberg, & Lyon, 2015). Nonetheless, older children in particular possess the potential for outstanding memory accuracy (Peterson, 2012; Quas et al., 1999). Although the research regarding the accuracy of child eyewitnesses is far from conclusive (Reed, 2014), suspicion of child memory accuracy goes some way to explain why adult eyewitnesses are generally seen to possess more integrity than their child counterparts (Bruer & Pozzulo, 2014). The current research develops on existing literature in assessing mock-juror evaluations of alibi evidence from children of varying ages (8-, 12-, and 16 years of age) to determine if age affects perceptions of alibi witness credibility.

## **Witness Confidence**

Confidence exhibited by a witness can have an impact on how their evidence is viewed by jurors (Palmer, Brewer, Weber, & Ambika, 2013; Vredeveldt & Sauer, 2015). Brewer and Burke (2002) manipulated the confidence of a witness using language, with phrases such as 'I am reasonably sure' compared to 'I am absolutely sure'. They found that the witness's confidence significantly affected how credible that witness was judged to be. Based upon this, the 'certainty trumps' hypothesis states that confidence is the main predictor used when judging how accurate a witnesses evidence is (Cutler, Penrod, & Dexter, 1990; Cutler, Penrod, & Stuve, 1988; Wheatcroft, Wagstaff, & Manarin, 2015). Although it is not clear if it is the main predictor used by jurors (Bradfield & Wells, 2000), numerous studies support the link between witness confidence and juror perceptions of accuracy (Brewer & Burke, 2002; Ceci, Crotteau-Huffman, Smith, & Loftus, 1994; Penrod & Cutler 1995). Despite this, correlations between witness accuracy and confidence are weak (Kassin & Wrightsman, 1985; Shaw & McClure, 1996), meaning jurors' reliance on confidence as a gauge of accuracy is problematic.

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Moston & Engleberg (1992) suggest that, with regards to police interview settings, the high cognitive demands of the interview coupled with the unfamiliar environment and unpleasantness of the event to be recalled, make this environment stressful for children. In addition, high anxiety is associated with greater susceptibility to leading questions (Almerigogna, Ost, Bull, & Akehurst, 2007). Similarly, the courtroom environment is an “unfamiliar, austere environment” (Cooper, Quas, & Cleveland, 2014, p. 814), the stress of which may intensify any existing stress from the crime witnessed (Goodman et al., 1992). This means that, compared to adults, child witnesses are more likely to display low confidence amongst other traits associated with lower credibility (Goodman, Golding, Helgeson, Haith, & Michelli, 1987). This could all have a detrimental effect on jurors’ perceptions of their credibility as signs of anxiety, such as speech disfluency and speech errors, could be wrongly mistaken for signs of deception (Davis et al., 2005).

To accommodate for the needs of children, most countries have now created special measures aiming to reduce stress for children called to give evidence in court. McAuliff and Bull Kovera (2012) assessed prospective juror’s ideas about how children behave in court, compared to when providing their evidence via video-link. Their findings illustrate that the jurors were aware that court was a stressful and challenging environment for children, and that they believed children would show more signs of this anxiety when testifying in court, as opposed to testifying via video link. Nonetheless, Landström and Granhag (2010) found that jurors believed children that testifying via a video-link were less confident than those testifying live in court, a finding that runs counter to intuition. However, McAuliff and Bull Kovera suggest that this finding may stem from expectancy violation, as the lack of confidence displayed by the child is not expected in the video-link environment. They therefore suggest that a child testifying via video-link might be more negatively evaluated than a child showing the same level of anxiety whilst testifying live in court. Instead of viewing the child’s behaviour for what it is – nerves - jurors may instead attribute the lack of confidence displayed via video-link, to deception (McAuliff & Bull Kovera, 2012). The confidence of child witnesses is clearly an area that requires further research attention, if the testimony of child (alibi) witnesses is to be given due consideration in court.

## **Children as Alibi Witnesses**

In England and Wales an alibi is a defence under section 6A(3) of the Criminal Procedure and Investigations Act 1996 (CPIA) that the suspect/defendant was in a particular place at a particular time that meant that s/he was not, or unlikely to have been, at the place where an offence was committed at the time it is alleged to have been committed. Olson and Wells (2004) used the term *alibi scepticism* to describe the almost blanket mistrust and suspicion of alibi evidence observed within the academic literature. In addition, in the academic literature relatives and friends of the suspect/defendant are referred to as motivated alibi witnesses, whereas strangers are referred to as unmotivated witnesses, based on these two groups' perceived motivation to lie for the suspect (Olson & Wells, 2004). Whether or not the alibi witness (alibi corroborator) has a previous relationship with the suspect/defendant has been consistently shown to influence mock-jurors (Culhane & Hosch, 2004; Hosch, Culhane, Jolly, Chavez, & Shaw, 2011), mock-investigators (Dahl & Price, 2012, Price & Dahl, 2014) and actual law enforcement staff's (Dysart & Strange, 2012) perceptions of the suspect/defendant and their alibi witness' credibility. However, the vast majority of research has focused upon cases involving adult alibi witnesses. Nevertheless, parents spend a large proportion of their time with their families, meaning children will frequently form alibi witnesses when their parents are suspected of an offence (Dahl & Price, 2012). There is therefore a clear need for more research that assesses the effect of child alibi witnesses upon juror decision making.

Dahl and Price (2012) investigated the effect of child alibi witnesses upon mock-investigator decision-making by manipulating the age (6 years, 25 years) and relationship to the suspect (child, neighbour) of the alibi witness in a mock case presented to participants. The results illustrated that a child alibi witness can reduce perceptions of suspect guilt, regardless of whether they are a neighbour or the child of the suspect, and that child alibi witnesses were rated as significantly more credible than adult alibi witnesses. Both these findings receive support from Price and Dahl (2014) who also assessed mock-investigator evaluations of 6 year-old and 25 year-old alibi witnesses. Although the adult neighbour in Dahl and Price's study had no effect on perceptions of the suspects guilt, an alibi supported by the suspect's 25 year old son actually enhanced perceptions of the suspect's guilt. This finding is in accordance with past research showing enhanced scepticism towards alibi evidence provided by motivated alibi witnesses (see for example Hosch, et al., 2011). Finally, Dahl and Price found no difference in the participants' perceptions of the credibility of alibi witness and the credibility of their alibi story. Interestingly, Price and Dahl (2014)



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found a recency effect for child alibi evidence; when it was presented after eyewitness evidence mock-investigators evaluated the defendant as less likely to be guilty. This implies that the high level of honesty associated with child testimony may be sufficient to override the commonly reported reliance on eyewitness evidence. Furthermore, these findings suggest that police and jurors base their evaluations of alibi witnesses primarily on their perception of the likelihood they will lie, rather than an assessment of their cognitive abilities or potential for memory errors.

In general, the findings of Dahl and Price (2012) and Price and Dahl (2014) support the concept that children are viewed as more honest than adults. In contrast to these findings though, Bruer, Price and Dahl (2016) found no significant difference in the amount of inculpatory evidence required by mock-investigators in order to arrest a suspect in the presence of either a 6 year old or 25 year old alibi witness. Similarly, Price and Dahl (2017) found no difference in investigators' ratings of suspect guilt in relation to corroboration from either a six year old or 25 year old alibi witness, or of a child alibi witness of either 6, 8, or 11 years of age. In addition, Eastwood et al.(2016) found evidence that participants believed children's evidence is more susceptible than that of adults to manipulation by parents and other adults. Eastwood et al's. findings therefore suggest that a younger alibi witness is not necessarily perceived to be stronger evidence of innocence than an adult alibi witness. Thus, the scant evidence seems to suggest that although adults may be perceived as less honest than children, adults are viewed as more believable due to their relatively enhanced cognitive capabilities (Eastwood, Snook, & Au, 2016). However, it should be noted that only children of 6 years of age were examined in these studies. It is therefore unclear whether older children acting as alibi witnesses would be viewed as similarly honest, particularly in light of the established deception capability at 8 years of age (Talwar et al., 2007). The alibi research needs to address this point in order to become better informed regarding the impact of child alibi witness evidence in court.

## Summary

In summary, children may frequently appear in court as eyewitnesses and alibi witnesses (Dahl & Price, 2012), but there is little research assessing how jurors perceive child alibi witnesses, or how their evidence may affect case verdicts. Moreover, witness confidence has received considerable attention from the eyewitness research (for example, Brewer & Burke, 2002; Palmer et al., 2013; Vredeveldt & Sauer, 2015), and there is an

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established positive correlation between perceived accuracy and confidence of witnesses (Vredeveldt & Sauer, 2015). With research showing that child eyewitnesses are generally viewed as highly honest (Connolly, Price, & Gordon, 2010), but evidence that their accuracy may be impaired by their cognitive abilities and the stressful nature of forensic setting, child witness confidence is a salient topic to examine. To this end, the present study assessed the effect of alibi witness age (8, 12, 16 years) and confidence (high, low) upon mock-juror evaluations of alibi witness and defendant credibility. In accordance with the two factor model of credibility (Leippe & Romanczyk, 1987; Ross, Dunning, Toggia, & Ceci, 1990), it was hypothesised that the younger alibi witnesses would be perceived as more credible than the older alibi witnesses and the confident witnesses would be more convincing than those showing signs of low confidence. Finally, a significant interaction between alibi witness age and confidence was anticipated such that a confident young witness would be perceived as the most credible alibi witness.

## Method

### Design

The study implemented an experimental between participants design in which the alibi witness' age (alibi witness age; 8 years vs 12 years vs 16 years) and confidence (high v low) were manipulated in a written mock trial. Subsequent mock juror verdicts (guilty v not-guilty) and perceptions of the alibi witness' and defendant's honesty, reliability and accuracy were ascertained.

### Participants

Of the one hundred and fifty six British participants completing the study, 11 were excluded for failing the experimental manipulation checks. This left a total sample of 145 participants with between 22 and 26 within each condition. The majority of participants were recruited online from a university in the North of England, although further participants were gained through a snowball sample recruited via advertisements on social media. Due to an error in the questionnaire, participants' age and sex were not collected.

### Materials and Procedure

The study was conducted through the online survey provider Qualtrics. A link to the study was displayed on a university in the North of England's research participation database as well as social media sites. Once participants had followed the hyperlink, they were presented with the study information and before providing their informed consent. Following this, participants navigated through a series of pages that contained the trial transcript for the condition to which Qualtrics random allocated them. Mock trial transcripts have been successfully used in similar research (Dahl & Price, 2012; Fawcett, 2015; Zuj, Palmer, & Kemps, 2015). The fictitious murder trial was constructed specifically for the present study. It was approximately 17 pages long and contained evidence from the defendant, a neighbour alibi witness and three further stranger eyewitnesses who provided inconclusive evidence regarding the defendant's claim that he was walking home from work at the time of the offence in question. In total six versions of the trial evidence were created which involved the manipulation of the alibi witness' age (8-, 12-, 16- years) and confidence (high, low).

As past literature has compared perceptions of child versus adult alibi witness testimony (Dahl & Price, 2012; Price & Dahl, 2014), the present study examined child alibi witnesses of differing ages. Past research has only used alibi witnesses of 6 years of age, so older children of 8, 12 and 16 years of age formed to the alibi witnesses in the mock case. The age of 8 years represented the age at which successful deception ability is established (Talwar et al., 2007) and a 16 year-old condition was used to see whether older children (largely neglected in the research literature) are viewed in the same way as younger children, or more similarly to adults in their cognitive and deception abilities. The transcripts in the different age conditions differed slightly to account for age differences in language ability and social activities, although the story presented remained the same across the conditions. For example, the 8 year old stated that he 'played' at his friends' house whereas the 12 year old and 16 year old 'hung out' at their friend's house at the time of the offence. The appropriateness of the language used by the alibi witnesses was assessed by a deputy head teacher with considerable experience of working with these age groups in order to support the validity of the manipulation. The participants were informed that the case involved a stabbing during the course of a robbery and the charge of murder were brought against the defendant. Similarly to Brewer and Burke (2002) and McClure et al. (2013), realistic verbal hedges by the alibi witness, such as 'erm' and 'I think', were used to decrease the alibi witness' confidence in the low confidence condition.

After reading the transcript, participants provided their verdict (guilty, not guilty) and verdict confidence (scored on a Likert scale of 0-100%). They then rated the honesty, reliability, and accuracy of both the alibi witness and the defendant (each scored on a Likert scale of 0-100%, e.g. not at reliable 0% – reliable, 100%). Finally the participants were debriefed.

## Results

Five instances of missing data were substituted with mean item scores (Buhi, Goodson, & Neilands, 2008).

### Juror verdicts

Across all the conditions, most of the participants concluded that the defendant was not guilty of the offence for which he was charged. The frequency of not guilty verdicts ranged from 10.3% when the alibi witness was 16 years of age, to just 4.1% of the verdicts when the alibi witness was 12 years old. A hierarchical loglinear analysis was performed on the data to establish if the age of the alibi witness (8, 12, 16) and confidence they displayed (high, low) influenced the mock-juror's verdicts (guilty, not guilty). The main effect of verdict was significant;  $X^2(1) = 50.52, p < .001$ , indicating that a substantially higher number of participants concluded that the defendant was not-guilty ( $n = 114$ ) than found the defendant guilty ( $n = 31$ ). No other significant interactions or main effects were discovered (all  $p > .05$ ) demonstrating that the age of the alibi witness and the confidence they displayed whilst giving evidence had no impact on juror's verdicts.

### Confidence in Verdict

A 3 x2 ANOVA (Analysis of Variance) was performed to establish if the age of the alibi witness (8, 12, 16 years) and confidence they displayed (high, low) would influence how confident the participant would be in the verdict they had provided. This analysis revealed a significant main effect of alibi witness age on verdict confidence,  $F(2, 139) = 4.45, p = .013, \eta_p^2 = .06$ . Post hoc Bonferroni tests showed that the jurors were significantly more confident in their verdict in the presence of an 8 year old alibi witness ( $M= 75.44, SD= 17.69$ ) compared to a 12 year old alibi witness ( $M= 65.41, SD= 21.34$ ) ( $p = .026$ ). All other comparisons were non-significant (all  $p > .05$ ). Alibi witness confidence and the interaction between alibi witness age and alibi witness confidence upon confidence in verdict were both

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non-significant,  $F(1, 139) = 2.26, p = .135, \eta_p^2 = .016$  and  $F(2, 139) = 2.16, p = .119, \eta_p^2 = .03$  respectively.

### **Relative Perceptions of Defendant and Alibi Witnesses**

Across the dataset as a whole, perceptions of the defendant and alibi witness were very similar, and a series of paired-samples t-tests were conducted to examine any differences between these variables. In general, the alibi witness ( $M = 72.15, SD = 24.28$ ) was viewed as more accurate than the defendant ( $M = 59.13, SD = 23.90$ ),  $t(144) = 5.83, p < .001, r = .44$ . With regards to the reliability of the alibi witness ( $M = 61.54, SD = 25.73$ ) and defendant ( $M = 58.90, SD = 24.98$ ), no significant difference was observed,  $t(144) = 1.16, p = .249, r = .09$ . Finally, the difference between perceptions of the honesty of the defendant ( $M = 61.56, SD = 23.21$ ) and alibi witness ( $M = 61.38, SD = 27.43$ ) was not significant,  $t(144) = -.08, p = .940, r = .006$ .

### **Perceptions of Alibi Witnesses**

#### **Alibi witness reliability.**

A 3 x 2 ANOVA was performed to establish if the age of the alibi witness (8, 12, 16) and confidence they displayed (high, low) would influence how reliable the participant would view the alibi witness. There was no significant interaction for alibi witness age and confidence level on the reliability scores  $F(2, 139) = .59, p = .559, \eta_p^2 = .008$ , as well as no significant main effect for age  $F(2, 139) = .90, p = .408, \eta_p^2 = .013$ . However, there was a significant main effect for confidence  $F(1, 139) = 10.46, p = .002, \eta_p^2 = .07$ , such that the alibi witness high in confidence was perceived as significantly more reliable than the alibi witness showing low confidence,  $M = 68.34 (21.82)$  and  $M = 54.65 (27.64)$  respectively (see table 1).

#### **Alibi witness honesty.**

The effect alibi witness' age (8, 12, 16) and alibi witness' confidence (high, low) upon perceptions of alibi witness honesty were assessed through a 3 x 2 ANOVA. This revealed no significant interaction for alibi witness age and confidence level on the honesty scores  $F(2, 139) = .062, p = .939, \eta_p^2 = .001$ , as well as no significant main effect for age  $F(2, 139) = 1.15, p = .320, \eta_p^2 = .016$ . However, there was a significant main effect for

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confidence,  $F(1, 139) = 10.50, p = .001, \eta_p^2 = .070$ , such that confident witnesses were perceived as more honest than unconfident witnesses,  $M = 68.70 (23.02)$  and  $M = 53.96 (29.62)$  respectively.

### **Alibi witness accuracy.**

A 3 x 2 ANOVA was performed to establish if the age of the alibi witness and confidence they displayed would influence how accurate the participant would view the alibi witness evidence to be. A 3 (alibi witness age; 8, 12, 16 years) x 2 (confidence; high, low) revealed a significant main effect of alibi witness confidence upon perceptions of alibi witness accuracy,  $F(1, 139) = 10.46, p = .002, \eta_p^2 = .070$ . This effect showed that unconfident alibi witnesses ( $M = 65.64, SD = 27.36$ ) were viewed as less accurate than confident alibi witnesses ( $M = 78.56, SD = 18.90$ ). The main effect of alibi witness age and the interaction between alibi witness age and confidence on perceived accuracy were not significant,  $F(2, 139) = .75, p = .476, \eta_p^2 = .011$  and  $F(2, 139) = .41, p = .663, \eta_p^2 = .006$  respectively.

Insert table 1 here.

### **Perceptions of the Defendant**

A series of 3 x 2 ANOVA were conducted to assess the effect of alibi witness confidence and alibi witness age upon the mock-juror's perceptions of the defendant's honesty, accuracy and reliability. These all showed no significant main effects or interactions between the variables (all  $p > .05$ ).

## **Discussion**

The current study investigated the influence of alibi witness age and confidence on mock juror's verdicts and evaluations of the alibi witness. There is limited research on alibi evidence (Allison et al., 2014; Golding, Stewart, Yozwiak, Djadali, & Sanchez, 2000; Marion & Burke, 2013) and even less on children as alibi witnesses, yet this type of evidence is an important feature in today's courts (Talwar & Crossman, 2012). The study revealed that despite greater confidence in verdicts in the presence of an 8 year old compared to a 12 year old alibi witness, a child alibi witness' age and confidence had no effect upon mock juror's verdicts. Interestingly, no differences were found in the perceptions of the defendant's reliability or honesty based upon the alibi witnesses' age and confidence level, and the alibi

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witness was actually viewed as more accurate than the defendant. Nonetheless, the confident alibi witness was perceived as significantly more reliable, honest and accurate than the unconfident alibi witness. In sum, these findings do not support the hypothesised trends.

### **Alibi evidence**

No difference in the perceived honesty and reliability of the defendant and alibi witness was found in the present study. With mean ratings for all these variables less than 62 (out of a possible 100), participants treated defendants and alibi witnesses with some suspicion (Culhane & Hosch, 2004). However, the participant ratings of the alibi witness were not so low as to support the notion that alibi evidence is universally and automatically treated as deceptive (Allison et al., 2014). Indeed, alibi witnesses were viewed as significantly more accurate than the defendant, implying that jurors trust the evidence of child alibi witnesses more than that of defendants. This suggests that cases involving child alibi witnesses may not require the judicial alibi instructions identified as potentially useful with adult alibi witnesses in prior research (Turtle & Burke, 2001). Certainly further research utilising children as alibi witnesses is required given the paucity of research on this issue. Thus, the study provides mixed support to a growing body of evidence for the alibi scepticism hypothesis (Olson & Wells, 2004).

### **Alibi Witness Characteristics**

According to the two factor model of credibility (Leippe & Romanczyk, 1987; Ross, Dunning, Toggia, & Ceci, 1990; Ross et al., 2003) younger alibi witnesses should have been perceived as less credible than the older witnesses, but this was not the case. Instead, the current study discovered no significant association between alibi witness age and verdict. This is consistent with the findings of Pozzulo & Dempsey (2009a) and McCauley & Parker (2001), who found no effect of victim age upon verdicts. More specifically, the current study found that participants were more confident in their (predominantly) not guilty verdicts in the presence of an 8 year old compared to a 12 or 16 year old alibi witness. The present study therefore adds to Dahl & Price's (2012) finding that child alibi witnesses may be viewed in a very different way to adult witnesses. Moreover, the study offers some limited support for the finding that a 6 year old alibi witness is actually perceived as more reliable than a 25 year old (Dahl & Price, 2012; Price & Dahl 2014).

It is not possible from the present findings to ascertain why the younger alibi witness inspired participants to feel more confident in their verdicts. The lack of significant main effect of witness age upon perceptions of honesty suggests that evaluations of children's developing deception ability is not accountable for this finding. In fact, the findings suggest that participants agree with Talwar & Lee (2008) that children of eight years and older are cognitively competent of deceit. Similarly, the reliability of the alibi witness assessed in the present study could be seen as an indicator of belief in their cognitive abilities. Future research could utilise a wider range of credibility measures to give a more rounded picture of child alibi witness credibility, such as those used by Ross et al. (2003) and Talwar et al. (2006), or could seek more in-depth qualitative accounts from mock-jurors regarding their perceptions of child alibi witnesses. As the two-factor model of credibility was not supported in the other studies of child alibi evidence (Dahl & Price, 2012; Price and Dahl, 2014) it looks likely that the two-factor model of credibility is not an appropriate explanation of evaluations of child alibi witness' evidence in general. However, the limited research regarding child alibi witness evidence means that further research is required before this model can conclusively be dismissed.

It may also be advantageous to examine a wider range of alibi witness ages. The ages in the study were selected as children of these ages are generally all capable of some successful deception, (Talwar et al., 2007) and have the cognitive capacity to accurately recall a specified event (Evans & Lee, 2013). However, it may be of use to extend the ages of witnesses to a lower age range to assess whether behaviours often associated with alibi evidence, such as deception (Allison et al., 2014) and suspicion (Culhane & Hosch, 2004), would be overcome by the inherent stereotypes society hold that young children are innately more honest (Nunez et al., 2011). Certainly, Price and Dahl (2014) suggest that honesty is more salient than cognitive ability when assessing the accuracy of a 6 year old alibi witness. Similarly, past research indicates that boys and girls are equally likely to tell lies (Talwar & Lee, 2002). Despite this, Talwar et al. (2006) found that girls were perceived to be more competent and believable eyewitnesses than boys. An examination of the effect of alibi witness sex was beyond the scope of the current study, which only examined male alibi witnesses. Past research utilising child alibi witnesses has also used a male rather than a female (Dahl & Price, 2012) suggesting that future research would benefit from examining whether girls are perceived as more accurate alibi witnesses.



### **Alibi Witness Confidence**

Copious past research illustrates the fallibility of human memory and the weak correlation that accuracy and confidence share (Kassin & Wrightsman, 1985; Shaw & McClure, 1996). In spite of this, jurors have a tendency to associate confidence with accuracy and so overly rely upon this aspect of testimony when reaching their decisions (Vredeveldt & Sauer, 2015).

Past research has manipulated witness confidence using both subtle hesitations (such as ‘umm...yes’) and explicit statements of confidence (Brewer & Burke, 2002), whereas the present study used subtle hesitations only. Despite this difference in methodology, the current study also discovered that confidence had a significant effect on perceptions of alibi witness honesty, reliability and accuracy. This finding supports a large body of past research highlighting the relationship between witness confidence and perceived credibility (Vredeveldt & Sauer, 2015). Thus, it is likely that confidence is a key factor used by jurors when assessing the evidence of child alibi witnesses, and provides tentative support for the ‘certainty trumps’ hypothesis (Wheatcroft et al., 2015). The use of written trial transcripts could be seen as a limitation of the research although previous literature has revealed comparable results when using transcripts and video evidence (Bornstein, 1999; MacCoun & Kerr, 1988; McCauley & Parker, 2001). Therefore, written transcripts have been utilised in earlier juror decision making literature (Blais & Forth, 2014; Fawcett, 2015; Neal, Christiansen, Bornstein, & Robicheaux, 2012;) due to the lack of differences in results based on presentation modality (online or offline) in other research (Fawcett, 2012; Gosling, Vazire, Srivastava, & John, 2004). Although, future research using live or video trials would be useful in assessing evaluations of a more direct confidence manipulation, this would be very difficult to achieve for the present study given the young age of the alibi witnesses involved.

The results of the present study highlight the salience of confidence in juror’s appraisals of child alibi witness’ reliability, honesty and accuracy. Therefore, the findings suggest that maximising the confidence displayed by children in court is paramount to enhancing their believability. Thus, special measures designed to reduce stress and anxiety and maximise the confidence of these vulnerable witnesses in courts in England and Wales (such as court familiarisation visits, and intermediaries) are supported by the findings of this study. However, the appropriateness of testifying via a live link requires further research

given the potential backfire effect on perceptions of witness confidence identified by McAuliff and Bull Kovera (2012).

## Conclusion

The current study explored if the age of a child alibi witness and the confidence they displayed would have an influence on the verdicts given by mock jurors. It also examined if there was an age within childhood, where the evidence given would be perceived as less credible or honest. The study found that the age of witness had little effect on jurors, whereas in support of past research (Vredeveldt & Sauer, 2015) the confidence displayed by the alibi witness affected how mock jurors judged their honesty and credibility. Thus, special measures designed to raise the confidence of child alibi witness may be important in encouraging jurors to evaluate their evidence positively, and require further empirical examination in the case of alibi witnesses. That mock jurors did not believe the child alibi witnesses to be deceptive supports past research looking at child alibi witnesses (e.g. Dahl & Price, 2012). The findings also suggest that whilst judicial guidance may be helpful in the presence of adult alibi witnesses (Turtle & Burke, 2001) it may not be necessary when children testify in support of a defendant. However, further research regarding child alibi witnesses is required before firmer recommendations for practice are possible.

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Child alibi witnesses

Table 1. Mock-juror evaluations of the reliability, credibility and accuracy of the alibi witness and defendant according to condition.

Alibi Witness Age (years)	Alibi Witness Confidence	Alibi Witness Reliability <i>M (SD)</i>	Alibi Witness Honesty <i>M (SD)</i>	Alibi Witness Accuracy <i>M (SD)</i>	Defendant Reliability <i>M (SD)</i>	Defendant Honesty <i>M (SD)</i>	Defendant Accuracy <i>M (SD)</i>
8	High	71.43 (20.61)	71.65 (22.19)	81.19 (16.34)	65.92 (23.47)	64.35 (23.31)	63.54 (23.34)
	Low	56.83 (27.71)	57.77 (28.76)	67.73 (30.44)	59.15 (25.25)	62.50 (19.96)	59.81 (23.77)
12	High	71.36 (20.69)	70.50 (20.52)	80.93 (18.93)	61.24 (23.44)	65.44 (22.03)	59.56 (22.57)
	Low	52.84 (26.96)	53.84 (28.71)	64.05 (24.87)	56.36 (23.70)	55.47 (23.08)	53.95 (19.93)
16	High	61.27 (23.73)	63.18 (26.51)	72.77 (21.13)	55.55 (29.47)	58.09 (26.82)	58.64 (28.85)
	Low	53.81 (28.93)	50.37 (31.65)	64.75 (26.79)	54.22 (24.97)	61.48 (24.87)	57.89 (25.24)
Total mean		61.54 (25.73)	61.38 (27.43)	72.15 (24.28)	58.90 (24.98)	61.56 (23.21)	59.13 (23.90)