Perceived credibility and eyewitness testimony of children with intellectual disabilities

Background: Although children with intellectual disabilities (ID) often provide accurate witness testimony, jurors tend to perceive their witness statements to be inherently unreliable.

Method: The current study explored the transcripts of child witnesses with ID, relative to those of typically developing (TD) age-matched children, and assessed how mock jurors perceived these transcripts in the absence of knowledge of group (ID or TD) membership. A further aim of this research was to determine whether perceptions of credibility were associated with levels of free recall and witness characteristics (anxiety and mental age).

Results: Mock jurors rated the testimony of children with ID as less credible than that of a TD age-matched comparison group. This was largely due to the transcripts of the children with ID containing fewer details than those of the TD children. Anxiety and mental age were found to have no effect on perceived levels of credibility.

Conclusions: It appears that even in the absence of knowledge of whether a child does or does not have ID, this factor still affects perceptions of credibility among mock jurors. Our findings suggest that fundamental differences in the quality of the witness transcripts lead to lower perceptions of credibility for children with ID.

Keywords: intellectual disabilities; eyewitness testimony; juror perceptions; credibility; children

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Children with intellectual disabilities (ID) are in a vulnerable position with regard to being victims or witnesses to crimes (Reiter *et al.* 2007, Westcott and Jones 1999). As their testimony is often assumed to be unreliable, offenders committing these crimes are rarely successfully prosecuted (Williams 1995), and an estimated three out of four Child Support Agency cases involving children with ID are never reported to authorities (Sobsey and Varnhagen 1989). Worryingly, Murphy (2001) estimated that only one in five disabled victims make a formal complaint to the police, as it is argued that allegations are not taken seriously (Clare 2001) or the individuals consider themselves incompetent to testify because of their ID (Perry and Wrightsman 1991).

Despite this, research exploring eyewitness skills in children with ID has begun to challenge these negative assumptions. For example, although children with ID generally produce less information in response to free recall instructions than age matched typically developing (TD) children, the accuracy of their recall is very high (Agnew and Powell 2004, Gordon *et al.* 1994, Henry and Gudjonsson 2003). In addition, although children with ID are often reported to be more suggestible than TD comparison groups in response to misleading questions (Agnew and Powell 2004, Gordon et al. 1994, Henry and Gudjonsson 2003), some studies have failed to find greater acceptance of "interviewer suggestions" among those with ID (Agnew and Powell 2004). Similarly, those with milder ID do not always show evidence of elevated suggestibility (Henry and Gudjonsson 2003).

However, accurate testimony can be unpersuasive if the jury does not believe the witness, or if negative stereotypes towards children with ID lead to the dismissal of potentially credible witness testimony (Peled *et al.* 2004). Ratings of credibility are found to be most extreme when the child's communication style contrasts with adults' age-related expectations (Schmidt and Brigham 1996). Specifically, children who appear to be more mature than their age challenge negative stereotypes by jurors, resulting in their testimony being regarded as more credible (Ross *et al.* 1990). However, as a child with ID is unlikely to appear older than their age, these biases may become more prominent and lead jurors to question their testimony (Peled et al. 2004). It may therefore be difficult to obtain convictions based on the statements made (Goodman *et al.* 1987).

It is imperative that jurors do not dismiss credible witness testimony because of stereotypes that children with ID are not competent witnesses or are incapable of being interviewed and giving evidence in court (Williams 1995). To explore this issue, Peled et al. (2004) investigated how mock jurors perceived a witness statement that was attributed to either a 15-year-old child with mild ID (with a mental age (MA) of 10), a TD 15-year-old child or a TD 10-year-old child. Despite jurors being made aware that the child with ID had a MA of 10-years, Peled and colleagues found that the testimony of the child with ID was rated as less credible than that of both the TD 15-year-old and TD 10-year-old. This highlights that the mere knowledge of a witness having an ID can bias jurors perceptions of the credibility of their testimony, irrespective of the quality of the actual statement.

The current study aimed to extend the work of Peled et al. (2004) in three ways. First, whilst Peled and colleagues assigned the same witness transcript to children with or without ID, we explored actual transcripts of child witnesses with ID,

relative to those of TD CA-matched children. This afforded a more realistic examination of the perceptions of child witness testimony. Second, we assessed how mock jurors perceived the credibility of the transcripts in the absence of knowledge of group (ID or TD) membership. This allowed an exploration of whether any differences in perceived credibility were due to jurors perceiving the statements of children with and without ID to be inherently different, or whether any differences were a function of pre-existing biases or stereotypes. This is particularly important considering that jurors (and indeed police officers and legal professionals) may not necessarily be aware that a witness has ID when asked to evaluate their evidence. Finally, we sought to determine whether perceptions of credibility were associated with levels of free recall and witness characteristics (including levels of anxiety and MA), to provide an insight into the factors underlying juror perceptions of credibility. Anxiety was of particular interest in the present study, as anxiety disorders are prevalent in individuals with ID (Emerson 2003) and high levels of anxiety may negatively affect the free recall of the children and make the witness appear less credible.

Method

Participants

A total of 60 children participated in this study: 31 children with ID and 29 TD children. The children with ID had a mean age of 11 years 6 months (SD = 9 months), a mean IQ of 54 (SD = 13.5; range = 39-77) and a mean mental age of 6 years 8 months (SD = 16 months). The TD children had a mean age of 11 years 9 months (SD = 8 months), a mean IQ of 114 (SD = 12.5; range = 84-149) and a mean mental age of 14 years (SD = 26 months). Although the ID and TD groups did not differ in age

[$t(57) = 1.63$, $p = .11$, $r = .21$], the TD group had higher IQs [$t(57) = 17.73$, $p < .001$, $r = .92$] and higher MAs [$t(57) = 16.24$, $p < .001$, $r = .91$] than the ID group. The children with ID were recruited through special schools for children with ID in England, whilst the TD comparison group attended mainstream schools in England. Informed written consent was obtained from parents/guardians prior to participation. Information on diagnosis was not sought during this study. Therefore, the sample is likely to be heterogeneous with respect to aetiology of the ID.

A further sample of 130 (54 males, 76 females) mock jurors was recruited, to assess the witness transcripts of the children. This opportunity sample ranged in age from 20 to 69 (mean = 38.61, SD = 13.74) and all participants were eligible for jury service within the United Kingdom. As such, this is a more representative sample than that of previous studies using mock juries, who tend to use undergraduate students (e.g., Peled et al. 2004).

Materials

The children were shown a video clip (lasting three minutes) that portrayed a minor crime. This clip contained no aggressive content and no mention was made of there being any need to recall the scene. Following an interlude (in which the child completed a cognitive task), an unexpected short interview about the clip was administered. This comprised a standard set of written questions based on recommendations in the Memorandum of Good Practice on Video Recorded Interviews with Child Witnesses for Criminal Proceedings (Home Office in conjunction with Department of Health 1992) and Achieving Best Evidence (Home Office 2001). Questions included free recall, followed by general and specific questions. However, to make the transcripts more comparable, only the free recall

data was presented to the mock jurors. This involved the children being asked to tell the investigator as much as they could remember about the video they had just viewed. All interviews were tape recorded and transcribed for scoring. Free recall scores comprised the total number of units of correct information recalled by participants (e.g. Henry & Gudjonsson, 2003). Children were also asked to complete the 'How I feel questionnaire' (Spielberger *et al.* 1973), to measure state and trait anxiety. Participants completed this questionnaire themselves, or (in the case of individuals with ID) the experimenter read out each question and recorded their answers for them. The verbal ability of these participants was assessed using the Verbal Similarities and Matrices subtests from the British Ability Scales II (BAS II) (Elliott 1996) and scores on these measures were pro-rated to estimate verbal and non-verbal IQ, respectively.

The mock jurors read a random sample of six free recall transcripts (three from children with ID and three from TD children) and completed a questionnaire to assess the perceived credibility of each witness on eight credibility characteristics (cf. Brimacombe *et al.* 1997, Mueller-Johnson *et al.* 2007). These were: believability, witness confidence, honesty, perceived convincingness of statement, capability to testify, credibility, completeness of the account and cognitive functioning (alertness). Responses were measured on a 7-point Likert scale (1 = not at all; 4 = somewhat; 7 = extremely), with lower scores indicating lower perceived credibility. The mock jurors completed these questionnaires via Bristol Online Survey (http://www.survey.bris.ac.uk/), although participants also had the option of completing the questionnaires on paper.

Procedure

All children were tested at their schools in two sessions, presented to the children as an opportunity to do "special work" with the experimenter. Session 1 included a verbal reasoning test, the eyewitness memory task and the anxiety questionnaire. Session 2 included a non-verbal reasoning test.

The mock jurors were instructed that they were taking part in a study on opinions towards child witnesses. Each participant rated a sample of six transcripts (out of a possible 59): three from children with ID and three from TD children. Each transcript was therefore rated 13 times, overall. Importantly, participants were unaware that half of the transcripts were from children with ID. After participants rated the transcripts and rated perceived levels of credibility, they were asked to respond to open-ended questions regarding how the testimony of the child could be improved (for descriptive purposes).

Ethical approval for the study was granted from the London South Bank University Research Ethics Committee.

Results

Analysis of overall levels of free recall in the witness transcripts revealed that the children with ID (mean = 12.5, SD = 8.8) recalled fewer details than the TD children (mean = 27.1, SD = 9.8), [$t(57) = 6.05$, $p < .001$, $r = .63$]. The children with ID (state mean = 35.7, SD = 3.9; trait mean = 36.5, SD = 6.5) also scored higher than the TD children (state mean = 28.6, SD = 3.7; trait mean = 30.5, SD = 5.5) on measures of state [$t(58) = 7.29$, $p < .001$, $r = .69$] and trait [$t(58) = 3.82$, $p < .001$, $r = .45$] anxiety.

To explore mock jurors' perceptions of the transcripts, a multivariate analysis of variance (MANOVA) was used, with group (ID or TD) as the independent variable and credibility characteristics (believability, witness confidence, honesty, perceived convincingness of statement, capability to testify, credibility, completeness of the account and cognitive functioning) as the dependent variable. This indicated that group had a significant effect on credibility ratings [$F(8,50) = 18.99$, $p < .001$, $\eta_p^2 = .75$]. Follow-up univariate analyses indicated that whether or not the child had ID affected ratings of all eight credibility characteristics: believability [$F(1, 57) = 82.90$, $p < .001$, $\eta_p^2 = .59$], confidence [$F(1, 57) = 61.17$, $p < .001$, $\eta_p^2 = .52$], honesty [$F(1, 57) = 67.91$, $p < .001$, $\eta_p^2 = .54$], convincingness [$F(1, 57) = 87.68$, $p < .001$, $\eta_p^2 = .61$], capability [$F(1, 57) = 101.23$, $p < .001$, $\eta_p^2 = .64$], credibility [$F(1, 57) = 92.79$, $p < .001$, $\eta_p^2 = .62$], completeness [$F(1, 57) = 104.31$, $p < .001$, $\eta_p^2 = .65$] and cognitive functioning [$F(1, 57) = 107.95$, $p < .001$, $\eta_p^2 = .65$]. Inspection of the means revealed that this was due to mock jurors rating the transcripts of the TD group as more credible than those of the ID group (see Table 1 for details).

[place Table 1 about here]

Multiple regression analyses were used to assess the relationship between ratings of perceived credibility, eyewitness memory performance and individual differences in the two groups. The predictor variables (levels of free recall, MA, and anxiety) were found to have a significant effect on perceived credibility in both the TD [$F(3, 24) = 3.37$, $p = .04$] and ID [$F(3, 26) = 19.40$, $p < .001$] groups, accounting for 20.8% and 65.6% of the variance, respectively. However, in both groups, only free

recall (TD β = .58; ID β = .78) was found to be a significant predictor of perceived credibility. Neither a combined index of state and trait anxiety (TD β = .04; ID β = .03), nor MA (TD β = -.21; ID β = .09), were found to be related to credibility in either group.

Discussion

In summary, the current study had three aims: (a) to explore the transcripts of child witnesses with ID, relative to those of TD CA-matched children, (b) to assess the perceived credibility of these transcripts by mock jurors, in the absence of knowledge of group (ID or TD) membership, and (c) to determine whether perceptions of credibility were associated with levels of free recall and/or witness characteristics (MA or anxiety). Results demonstrated that mock jurors rated the testimony of children with ID as less credible than that of TD CA-matched comparison children; a finding that was attributable to the free recall of children with ID being considerably less full in terms of details recalled than that of TD children. The witness characteristics of anxiety and MA were found to have no effect on levels of perceived credibility. This suggests that mock jurors who had no knowledge of whether a child did or did not have ID based their perceptions of credibility on the quantity of information produced during free recall. Interestingly, MA did not contribute to the regression model once the amount of free recall had been taken into account. Similarly, the child's reported levels of anxiety did not make an independent contribution to their perceived credibility, even in the children with ID who had reported higher levels of state and trait anxiety.

These findings were subsequently confirmed when the mock jurors responded to open-ended questions regarding how the testimony of each child could be

improved. This revealed that mock jurors perceived the recall of the ID group to be "unclear", "confused", and "vague", with little detail of facts and descriptions provided (e.g., "more attention needs to be paid to what's going on"). Lack of attention was also frequently mentioned in response to this group ("[the child] doesn't seem too interested", "seemed distracted" or "showed no interest at all"). In contrast, many mock jurors felt that some of the witness accounts from TD children could not be improved due to the children being "very observant", having "a detailed memory" and being "consistent in [their] answers". In addition, it was noted that "the amount of detail given help[ed] to increase the child's credibility". This supports the findings of the current study, which demonstrated that the quantity of detail in free recall was the only significant predictor of perceived credibility.

Several strengths of the current study should be acknowledged. First, the sample of mock jurors comprised a representative sample of people who would be likely to be called for jury service in the UK. This contrasts with previous research, which has focused heavily on the use of higher-education students (Peled et al. 2004, Ross et al. 1990, Nightingale 1993). Second, the majority of research on jurors' perceptions of witnesses with ID has focused on testimony concerning serious crimes (e.g., sexual abuse). The nature of these crimes may actually serve to favour the testimony of the child with ID, eliciting sympathy towards a member of this group. The exploration of the testimony of child witnesses with ID in the absence of this context therefore extends previous work that has heavily focused on such crimes. Third, the current study utilised actual witness transcripts from children with ID, rather than assigning the same witness statement to a child described as having ID versus TD (e.g., Peled et al., 2004). This significantly enhances the validity of such a study.

However, it is also important to acknowledge the methodological limitations of the current research. First, it should be stressed that the current approach differed significantly from actual court cases and care should be taken when extrapolating the results. For example, participants were not questioned about witness credibility within a court setting; instead they read the free recall of six children and completed questionnaires at home, knowing their perceptions towards the child would not lead to any consequences on the part of the witness. Further, the mock jurors were only given the initial free narrative of each child's interview and did not have access to responses to general or specific questions about the event, which may have provided the mock jurors with more information about the child's overall credibility. In addition, seeing a child physically being questioned in a court setting (albeit, via video link as per recommended practice in England and Wales) may change perceptions altogether, leading to mock jurors empathising with the child with ID and taking their disability into account (Bottoms *et al.* 2003). This is unlikely to occur when reading a written transcript of an interview. In addition, actual jurors would engage in group deliberations regarding the credibility of the witness, which may further alter their perceptions of the testimony.

It is also important to add that, in an actual court case, jurors may or may not be aware of whether a witness has an ID. Even if jurors are aware of this, they may have limited appreciation that, for a witness with ID, their MA will be significantly lower than their CA. It is therefore of interest for future research to compare mock jurors' perceptions of the credibility of transcripts from MA-matched children with or without ID. This would determine whether any differences in credibility ratings were due to pre-existing biases against children with ID or to genuine differences in the free recall of these children. Despite this, the current study provides an important

contribution to our understanding of perceptions of credibility and eyewitness memory in children with ID and should be used as a basis for future research in this area.

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Table 1: Mean credibility scores in the TD and ID groups

Credibility characteristic	Group	Mean	SD
Believability	TD	5.19	.76
	ID	3.22	.89
Confidence	TD	4.95	1.01
	ID	2.86	1.04
Honesty	TD	5.40	.56
	ID	3.85	.85
Convincingness	TD	5.01	.92
	ID	2.68	.98
Capability	TD	4.97	.97
	ID	2.44	.95
Credibility	TD	5.01	.81
	ID	2.88	.92
Completeness	TD	4.80	1.01
	ID	2.20	.96
Alertness	TD	5.12	.96
	ID	2.43	1.01