The effect of expert witness testimony and complainant cognitive statements on mock jurors' perceptions of rape trial testimony

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This study explores the influence on juror decision-making of expert witness and rape complainant testimony that explains a complainant's counter-intuitive behaviour. A total of 280 participants read a vignette of a date rape scenario containing one of four combinations of conditions: expert witness testimony present or not present and complainant's explanatory statement present or not present. No significant effects were found between conditions for defendant guilt likelihood and complainant credibility or blameworthiness, but the participants judged the defendant as more blameworthy when both the complainant's explanatory statement and the expert witness testimony were present. The participants' qualitative responses about their reasoning suggest that they were more likely to use evidence-based reasoning in their judgements when expert witness testimony and cognitive statements were present. This emphasises the importance of police and prosecutors finding ways to mitigate the potentially detrimental effects of rape myths when gathering evidence and constructing a case.

Keywords: blame attribution; expert evidence; investigative interviewing; rape; rape myths; sexual offences; story model.

Conviction rates for rape cases are low. A review of attrition studies from Australia, Canada, England, Wales, Scotland and the United States (US) indicates that only 12.5% of sexual assault cases reported to police result in a conviction (Daly & Bouhours, 2010). One reason for these poor prosecution outcomes is that there is often no question that sexual intercourse took place; rather, the issue is whether or not the complainant consented to the sexual activity. The hidden nature of the offending means that the complainant's account is often the only evidence that fact-finders have to determine defendant guilt (Lees, 2002). Adding to this problem, what typically happens when

someone is raped is often more akin to a consensual sexual encounter than the common expectation that rape involves a stranger violently attacking a woman who fights back (Estrich, 1996). These preconceptions or myths about rape can unfairly bias jurors towards blaming the complainant for not preventing the unwanted sexual contact (Anderson, 2007; Burt, 1980; Burt & Albin, 1981; Dahl et al., 2007; Ellison & Munro, 2009a; Hammond, Berry, & Rodriguez, 2011). For example, if a complainant does not physically resist the alleged offender, jurors may consider the complainant to be blameworthy (Ellison & Munro, 2009b), even though many complainants freeze

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when sexually assaulted (Galliano, Noble, Travis, & Puechil, 1993).

Factors such as expert witness testimony and the quality of the complainant's testimony can influence perceptions of complainant credibility and, in turn, affect the likelihood of a conviction (Brekke & Borgida, 1988; Ellison & Munro, 2009b; Spanos, Dubreuil, & Gwynn, 1991; Vidmar & Diamond, 2001). This article examines whether or not two methods that could be used at trial to help explain a complainant's counter-intuitive behaviour can help mitigate the negative effects of rape myths on juror decision-making. These two methods are: the presentation of expert witness testimony; and including in the complainant's testimony explanatory statements about the complainant's behaviour. First, however, it is necessary to understand how jurors process the evidence presented at trial and how rape myths affect this process. This article uses the 'story model' of juror decision-making in relation to rape trials and explores the effect of rape myths on this process. For convenience, the complainants are referred to as females, although it is acknowledged that there are also male victims of rape.

The story model of juror decision-making

Many models describe the various processes involved in decision-making (Busemeyer & Townsend, 1993; Cacioppo, Petty, & Morris, 1983; Kahneman & Tversky, 1979). Pennington and Hastie's (1991, 1992) story model posits that jurors are active agents in trying to process information in a systematic, logical way that is consistent with the requirements of their role, organising the information into a narrative. This narrative is constructed from three pools of information: the evidence presented at the trial, world knowledge about similar events and knowledge about story structures. Within the construction of a narrative, jurors tend to organise information into 'causal chains'.

Causal chains are sequences of related events and causal relationships, otherwise known as 'stories' (Pennington & Hastie, 1991, 1992). These causal chains are made up of a number of schematic representations, or 'episodes', which contain events that represent particular roles and how they are connected by causal relationships. Episodes contain initiating events that trigger psychological responses from the people involved, in turn generating goals that give rise to actions and result in consequences. In addition, jurors can have varying perspectives on the evidence provided and may have multiple interpretations of the story.

The generation of stories, or the process of selecting suitable stories, is governed by three 'certainty principles' (Pennington & Hastie, 1991, 1992): coverage, coherence and uniqueness. Coverage and coherence affect the acceptability of, and level of confidence in, a presented story, whereas uniqueness relates to the differences or similarities within any number of stories being compared.

Rape myths

Many judgements reached by mock jurors are strongly influenced by their pre-existing attitudes towards rape (Finch & Munro, 2005). Rape myths are a set of preconceived and unfounded ideas held by people about the factors that are consistent with their perceptions of a 'typical' rape (Burt, 1980). These myths can vary from beliefs about what the victim has done to 'encourage' the assault, such as flirting, drinking alcohol or wearing provocative clothing, to beliefs about the typical rape scenario, such as being assaulted by a stranger (Anderson, 2007; Dahl et al., 2007; Ellison & Munro, 2009a; Hammond et al., 2011; Wessel, Drevland, Eilertsen, & Mag-nussen, 2006).

Research has found that the stronger the mock jurors' belief in rape myths, the more likely they are to attribute blame to the complainant and the less likely they are to blame the defendant (Hammond et al., 2011).

Furthermore, the more ambiguous the story, the more likely it is that jurors will rely on schemas such as rape myths when making decisions (Dunning & Sherman, 1997). This is congruent with the narrative construction process outlined in the story model, wherein any gaps in the evidence presented at a trial can be erroneously filled in with jurors' perceptions of what typically happens in a rape scenario.

Myth-countering measures

By finding ways to mitigate the effects of rape myths on juror decision-making the criminal justice system may be able to increase just outcomes in rape trials. One promising approach is to have prosecutors present evidence to help counteract rape myths, reduce the degree of ambiguity in the evidence and encourage jurors to base their decisions on the evidence rather than on schematic representations of rape (Brekke & Borgida, 1988; Spanos et al., 1991). The introduction of testimony explaining the complainant's counter-intuitive behaviour may add to the plausibility of her testimony and increase the cohesiveness of the story, in turn increasing its level of uniqueness and making it a more viable option (Pennington & Hastie, 1991). In a discussion paper on how to improve the prosecutions of rape cases in England, Ellison (2007) suggests two methods that prosecutors can use to admit testimony that seeks to explain the complainant's counter-intuitive behaviour: complainant testimony and expert testimony.

Explanatory statements from the complainant

One method of addressing jurors' erroneous beliefs is for the prosecutor to ask the complainant during her testimony, in a non-blaming manner, to explain why she reacted in the way that she did to the assault (Ellison, 2007). Or, if the complainant's evidence is being given by way of a video recording of

her police interview, for the police to obtain this information during the interview (Westera, Kebbell, & Milne, 2013). It is especially important to enable the complainant to effectively convey her thoughts and feelings about what may appear to jurors to be counter-intuitive behaviour (Ellison, 2007). For example, asking the complainant to describe what was going through her mind immediately before and during the alleged rape may help to explain why she 'froze', a reaction that may otherwise seem implausible to jurors, who might expect her to have physically resisted the assault (Ellison & Munro, 2009b). To the authors' knowledge, no study to date has examined the influence of the complainant's explanation of her behaviour on juror decision-making. Studies do however show that complainant credibility has a strong influence on mock juror verdicts in rape cases (Finch & Munro, 2005); therefore, including this additional explanation in complainant testimony may lead jurors to perceive the complainant as less blameworthy and more credible, thus increasing findings of defendant guilt.

Expert witness testimony

A wealth of evidence shows that expert testimony can influence juror judgements in favour of the complainant or the defendant, depending on whose case the testimony supports (Brekke & Borgida, 1988; Ellison & Munro, 2009; Vidmar & Diamond, 2001). Expert witness testimony has been found to be most effective when it is presented early on and is specifically linked to aspects of the current case (Brekke & Borgida, 1988). Significant increases in guilty verdicts, severity of sentencing and perceptions of complainant credibility, as well as decreases in perceptions of complainant responsibility and defendant credibility, have been attributed to the use of expert witness testimony (Brekke & Borgida, 1988; Ellison & Munro, 2009).

Only one study to date has directly examined the effect of providing expert evidence

to explain the counter-intuitive behaviour of rape complainants. In Ellison and Munro's (2009) study, mock jurors attended a simulated trial where they were exposed to expert testimony, judicial instruction or no instruction. After deliberating on the verdict, all jurors completed a questionnaire that addressed common rape myths such as delayed reporting, the demeanour of the complainant and a lack of resistance on the part of the complainant. A frequency count of the qualitative analysis of the jurors' responses suggests that they were less likely to factor the complainant's demeanour and delayed reporting into their decision-making process when exposed to expert witness testimony, but that this was not the case with a lack of resistance on the part of the complainant. An analysis of the themes of the mock jurors' responses during their deliberations suggests that the jurors were reluctant to accept freezing as a viable explanation; despite the presence of expert evidence, the jurors were unwilling to accept that a victim of rape would fail to fight back and not exhibit any signs of physical harm from the encounter (Ellison & Munro, 2009). This finding could indicate that the expert's explanation of the complainant's lack of resistance is not congruent with the mock jurors' world knowledge of rape scenarios, or that there is a disconnect in the narrative that was presented. Given this finding, it is important to replicate this study to see if the absence of an effect was an anomaly or was due to the entrenched attitudes that some people hold about the absence of resistance during rape. It would also be interesting to establish if presenting explanatory information from two different sources (i.e. the complainant and an expert) would bolster the effectiveness of this evidence in correcting rape myths.

The present study

The present study investigates the impact of explanatory testimony from the complainant and expert witness testimony on mock jurors'

ratings of defendant guilt, complainant credibility and complainant and defendant blameworthiness. The participants were presented with vignettes of a typical date rape scenario to explore the effects on jurors' judgements of expert witness testimony and explanatory cognitive statements within the complainant's testimony. The use of vignettes is common in mock juror investigations and it has been shown that the medium of delivery, such as video or audio, has no significant impact on jurors' decisions (Bornstein, 1999). To address the problematic issue of a lack of resistance on the part of the complainant, as identified by Ellison and Munro (2009), no other rape myths were included in the statements.

Hypotheses

It was hypothesised that the inclusion of an explanatory cognitive statement from the complainant or expert witness testimony would increase the plausibility and completeness of the evidence provided, resulting in higher levels of complainant credibility and defendant blameworthiness and guiltiness, and lower levels of complainant blameworthiness and defendant credibility. It was also hypothesised that there would be a significant interaction between these two factors, resulting in an increased effect on participants' ratings.

Method

Participants

A convenience sample of students was recruited from the university's first-year psychology subject pool. As an incentive for participating, students were granted a portion of course credit. A total of 280 participants were recruited: 183 females ranging in age from 18 to 51 years ($M = 21.05$, $SD = 4.96$) and 97 males ranging in age from 18 to 45 years ($M = 21.47$, $SD = 5.10$). Of the participants, 225 identified as Australian, 20 as European, 18 as Asian, one as African and 16 as 'Other'.

Design

A 2×2 independent between-groups design was used; the independent variables are the expert witness testimony (present/not present) and the complainant's cognitive statement (present/not present). Each participant received a vignette that was manipulated to represent one of four combinations of these two variables.

A power analysis was conducted using the GPower 3.1.9.2 (Faul, Erdfelder, Buchner & Lang, 2009). software package to determine the required number of participants. As no previous research had been conducted in this area, a moderate effect size was used, as recommended by Cohen (1992). Calculations for the power analysis were conducted using $\alpha = .05$, $df = 3$, an effect size of 0.25 and one covariate. The results of the analysis concluded that with these parameters, 279 observations would be required to find a significant result.

Procedure

Ethical approval to conduct this research was granted by the university. The study was conducted online using Qualtrics online survey software (Qualtrics, Provo, UT) that students could access through a website. Participants were screened by age to represent those eligible for jury service in Queensland, Australia, so only those aged 18 to 70 years were able to participate. They then received a brief set of instructions and some broad details to set the scene for the upcoming statements. They were required to read a selection of brief statements that were consistent with their allocated condition. The statements were presented in the following order: complainant statement, expert witness statement (if applicable) and defendant statement. For the maintenance of ecological validity, the ordering of the statements was designed to represent the order that is usually presented in a real-world legal proceeding and that is in keeping with the research presented by Brekke and Borgida (1988). Following these statements, the participants were directed to complete the constructed questionnaire.

Rape scenario

The vignette presents a case of acquaintance rape. The defendant (male) and complainant (female) both attended a party at a private residence. The complainant claims that the defendant forced himself on her after she had told him to stop and pushed his hands away. At this point in the scenario, the complainant froze. In her cognitive statement, she explains that she froze due to her fear that the defendant would become violent and possibly kill her. The defendant claims that the sex was consensual. A statement from an expert witness is also presented. The expert witness is a prominent researcher and practitioner who works with sexual assault victims, and he states that freezing behaviour is common in victims of rape. It was believed that the inclusion of the complainant's cognitive statement and the expert witness testimony would have an impact on the participants' perceptions of the complainant and the defendant.

Measures

Four dependent variables were measured: the likelihood that the defendant is guilty; the credibility of the complainant; the blameworthiness of the complainant; and the blameworthiness of the defendant. In addition, a scale of acceptance of rape myths was used to measure this variable as a possible covariate.

Dependant variables

The second measure was constructed for the purposes of this study and uses a 7-point Likert scale to measure the participants' ratings of defendant guilt likelihood, complainant credibility and blameworthiness and defendant blameworthiness (see Appendix A). The questions on the measure are: 'How likely is it that the defendant committed the rape?' (1 = *not at all likely*, 7 = *completely likely*); 'To what extent do you find the complainant to be credible/believable?' (1 = *not credible*,

7 = *completely credible*); ‘Assuming that the rape did occur, to what extent do you find the complainant is to blame for the events that took place?’ (1 = *not blameworthy*, 7 = *completely blameworthy*); ‘To what extent do you find the defendant is to blame for the events that took place?’ (1 = *not blameworthy*, 7 = *completely blameworthy*).

Open question on decision-making

The participants were also asked to explain what the two most salient factors were in their decision-making process.

Rape-myth acceptance

A covariate was measured using the Rape Myth Acceptance Scale (RMAS), which provides a single overall score that represents the intensity and diversity of each participant’s rape-myth beliefs (Burt, 1980). The RMAS is a 19-item self-report measure that uses a

7-point Likert scale with responses ranging from 1 = *disagree strongly* to 7 = *agree strongly*. The scale uses statements such as ‘Any female can get raped’ and ‘Women who get raped while hitch-hiking get what they deserve’.

Preliminary analyses

All preliminary analyses use a standardised cut-off of $z = 3.29$ to gauge outliers and skewness, as recommended by Tabachnick and Fidell (2007). For the cases in which breaches in normality were found, transformations were applied to rectify this. All transformations were successful in achieving normality. A summary of the means and standard deviations for each dependent variable, by condition, is displayed in Table 1.

The preliminary analyses of the RMAS results show ceiling effects (Table 1), and further analyses conducted using the RMAS

Table 1. Descriptive statistics.

DV	Expert witness	Complainant cognition	<i>n</i>	<i>M</i>	<i>SD</i>
Complainant credibility (sqrt)	Absent	Absent	71	−1.73	0.37
	Absent	Present	70	−1.72	0.30
	Present	Absent	71	−1.71	0.35
	Present	Present	67	−1.70	0.38
Complainant blame (inv)	Absent	Absent	71	−0.61	0.33
	Absent	Present	70	−0.59	0.33
	Present	Absent	71	−0.57	0.31
	Present	Present	67	−0.63	0.33
Defendant blame (sqrt)	Absent	Absent	71	−1.45	0.38
	Absent	Present	71	−1.54	0.42
	Present	Absent	71	−1.50	0.44
	Present	Present	67	−1.42	0.40
Guiltiness	Absent	Absent	71	4.45	1.50
	Absent	Present	71	4.66	1.35
	Present	Absent	71	4.34	1.41
	Present	Present	67	4.69	1.49
RMAS (lg10)	Absent	Absent	71	1.57	0.17
	Absent	Present	71	1.55	0.14
	Present	Absent	70	1.57	0.15
	Present	Present	67	1.52	0.14

as a covariate resulted in no significant changes. Due to this, the RMAS-related analyses are not reported on further.

Results

A 2 (expert witness testimony) $\times$ 2 (complainant cognitive statement) between-subjects analysis of variance (ANOVA) was conducted for complainant credibility, complainant blameworthiness and defendant guilt. There are no significant main effects of the expert witness testimony on complainant credibility, $F(1, 275) = 0.02$, $p = .74$, complainant blameworthiness, $F(1, 274) = 0.001$, $p = .972$, or defendant guilt, $F(1, 276) = 0.07$, $p = .798$, and no significant main effects of the complainant's cognitive statement on complainant credibility, $F(1, 275) = 0.11$, $p = .744$, complainant blameworthiness, $F(1, 274) = 0.31$, $p = .578$, or defendant guilt, $F(1, 276) = 2.65$, $p = .105$. Further, no significant interactions were found for complainant credibility, $F(1, 275) = 0.02$, $p = .883$, complainant blameworthiness, $F(1, 274) = 1.003$, $p = .317$, or defendant guilt, $F(1, 276) = 0.16$, $p = .690$.

A 2 (expert witness testimony) $\times$ 2 (complainant cognitive statement) between-subjects ANOVA was conducted for defendant blameworthiness, and an analysis of the simple effects using independent t -tests found a significant difference between groups, $t(140) = 1.693$, $p = .047$, $r = .14$, CI 95% $[-0.02, 0.25]$. There is a significant interaction between the expert witness testimony and the complainant's cognitive statement in relation to the ratings of defendant blameworthiness, $F(1, 276) = 5.91$, $p = .016$, $\eta_p^2 = .02$ (Figure 1). A comparison of the means suggests that in the absence of the complainant's cognitive statement, the presence of only the expert witness testimony had a negative effect on the participants' ratings of defendant blameworthiness ($M = -1.57$, $SE = 0.05$), compared to the condition where both statements were absent ($M = -1.45$, $SE = 0.04$). However, the opposite is true when the

complainant's cognitive statement was present; the expert witness testimony then had a positive effect on the ratings of defendant blameworthiness ($M = -1.42$, $SE = 0.05$), compared to the effect of only presenting the complainant's cognitive statement ($M = -1.54$, $SE = 0.05$). This difference is also significant, $t(136) = -1.745$, $p = .042$, $r = .15$.

Qualitative responses

For the qualitative data generated from the short-answer questions, a thematic analysis was conducted to identify the themes in participants' responses. Three themes were identified: comments that are based on the legal definition of rape; evidence-focused comments that are not based on the legal definition of rape and involve the credibility/blameworthiness of the complainant; and comments that are not based on the legal definition of rape and involve the credibility/blameworthiness of the defendant. The responses for each participant were then blind coded by two separate raters as present or not present. The inter-rater reliability for the two independent raters is acceptable, $\kappa = 0.77$, $p < .001$, 95% CI $[0.62, 0.92]$.

Chi-square analyses were conducted to test for significant differences in the frequencies of the comments made by the participants for each of the themes across the conditions. A chi-square test of independence conducted on the evidence-based comments revealed significant differences between the conditions. A total of 90 participants (32.1%) made comments that relate to evidence-based judgements. In the condition in which both the expert witness testimony and the complainant's cognitive statement are present, 31 comments (11.1%) reflect decisions based on the legal definition of rape, which is significantly higher than in the control condition in which neither statement is present wherein only 19 comments (6.8%) reflect decisions based on the legal definition of rape, $\chi^2(1, n = 138) = 5.68$, $p = .009$, $\phi = .203$, and is also significantly higher than in

Figure 1. Mean defendant blameworthiness by cognitive statement and expert witness testimony. Note: Error bars represent ± 1 standard error.

the condition in which only the complainant's cognitive statement is present wherein only 12 comments (4.3%) reflect decisions based on the legal definition of rape, $\chi^2 (1, n = 138) = 13.86, p < .001, \phi = .32$.

A chi-square test of independence analysis revealed no significant differences between the conditions for complainant blame/credibility, $\chi^2 (3) = 2.12, p = .274$, or defendant blame/credibility, $\chi^2 (3) = 3.31, p = .173$. A total of 73 participants (26.1%) made judgements about the complainant that are not based on the legal definition of rape and a total of 82 participants (29.3%) made judgements about the defendant that are not related to the legal definition of rape.

In addition to this, the comments of the participants in the condition in which only the expert testimony is present contain significantly more evidence-based reasons than the condition in which only the complainant's cognitive statement is present, $\chi^2 (1, n = 142) = 8.91, p < .001, \phi = -.25$, wherein 28 (10%) and 12 (4.3%) evidence-based comments were made, respectively.

Discussion

The purpose of this study is to find ways of counteracting the lack of resistance to rape myths through the provision of a cognitive statement from the complainant and the

testimony of an expert witness. The results indicate that rape myths are particularly difficult to counteract. However, the combination of expert witness testimony and the complainant's cognitive statement explaining the complainant's behaviour were found to be effective at counteracting the lack of resistance to rape myths in relation to defendant blameworthiness; the ratings of defendant blameworthiness increased when both of these statements were present. Furthermore, it was found that if evidence was supplied to the participants based on the legal definition of rape, they were more likely to use this as a factor in their decision-making.

The interaction of the complainant's cognitive statement and the expert witness testimony is consistent with the final hypothesis. The inclusion of the complainant's cognitive statement increased participants' ratings of defendant blameworthiness when the expert witness testimony was also present; therefore, the coupling of the two statements may have created enough plausibility to impact on the participants' ratings of defendant blameworthiness. This could have altered the coherence of the evidence and enhanced the participants' confidence in making a judgement about blame (Pennington & Hastie, 1991, 1992). This also supports the previous suggestion regarding the issue of consent; when the complainant stated why she froze, the plausibility of both her testimony and the expert witness testimony was increased, creating a situation that the participants found more acceptable.

This interaction may also have influenced the coverage of the complainant's testimony. Due to the introduction of the expert witness testimony as additional evidence to be considered in the trial, the complainant's cognitive statement came to cover more evidence than the defendant's testimony. Consistent with the story model (Pennington & Hastie, 1991, 1992) and the research presented by Dunning and Sherman (1997), this extra information reduced ambiguity and therefore reduced the participants' reliance on rape myths to fill in the gaps in the story. Further,

the level of uniqueness in the complainant's story may have increased because her testimony now covered more evidence than the defendant's story, as well as becoming more plausible and therefore more coherent. However, as further discussed below, the results indicate that the expert witness testimony had a negative impact on ratings of defendant blameworthiness when the complainant's cognitive statement was absent. This suggests that the complainant's statement affected the participants' perception of the expert witness testimony.

The results of the above interaction are also supported by the analysis of the qualitative data. The participants were much more likely to use reasoning based on the legal definition of rape when the expert witness testimony and/or the complainant's cognitive statement were present. Regarding the condition with just the expert witness testimony and the condition with both the expert witness testimony and the complainant's cognitive statement, this is not surprising; clearly, if more legally based evidence is presented then participants will be more likely to factor this into their decisions. However, even though the complainant's cognitive statement could not be regarded as evidence supporting the legal definition of rape, the participants in this condition were still prompted to make more evidence-based decisions. The reasons for this are not clear. It is possible that the complainant's cognitive statement added a level of realism which prompted participants to use a level of consideration that would be expected of jurors in a real trial. Surprisingly, the effects of this interaction were not found in the other proposed measures.

One of the most interesting results is the lack of impact of this interaction on ratings of complainant blameworthiness. The research conducted by Hammond et al. (2011) found that rape-myth acceptance levels affect the assessment of both complainant and defendant blameworthiness. As such, it would be expected that if the increased quality of the evidence affected participants' ratings of

blameworthiness by countering rape myths then ratings of complainant blameworthiness would decrease – but this did not happen. The exact nature of the mechanisms behind the participants' decisions regarding blameworthiness, and how these mechanisms interact with rape myths, is therefore uncertain. Furthermore, the use of expert witness testimony in isolation had a negative effect on ratings of defendant blameworthiness.

When measuring ratings of defendant blameworthiness, the interactions between the complainant's cognitive statement and the expert witness testimony led to some confusing results. Essentially, the inclusion of just the expert witness testimony reduced the participants' ratings of defendant blameworthiness compared to the control condition. However, this effect was reversed when the complainant's cognitive statement and the expert witness testimony were both present, resulting in significantly higher ratings of defendant blameworthiness compared to the control condition and the condition with just the complainant's cognitive statement. This result is difficult to explain. It seems that presenting the expert witness testimony in isolation created a situation wherein the defendant's statement became more acceptable to the participants and/or the complainant's statement became less acceptable. This is not consistent with the story model; the expert witness testimony should make the complainant's statement more plausible, coherent and unique, therefore making it more likely to be accepted by the participants (Pennington & Hastie, 1991, 1992). It is possible that in the absence of the extra context provided by the complainant's cognitive statement, the evidence supplied by the expert witness testimony led the participants to believe that the defendant had no way of knowing that the complainant was unwilling, or at least for them to think that she was not clear enough in her resistance. However, this still puts the onus on the complainant to refuse, rather than on the defendant being required to obtain consent.

The use of just the complainant's cognitive statement or just the expert witness testimony in isolation gave no significant results for the remainder of the selected measures, indicating that neither of these statements on their own was enough to significantly impact the participants' perceptions of complainant credibility and blameworthiness and defendant guilt. This is contrary to the suggestions by Ellison (2007) and could be due to a number of reasons.

Firstly, the story could have been seen as incomplete. Many of the statements regarding the complainant's lack of resistance mention that she had no logical reason to view the defendant as dangerous, which would have resulted in a missing causal link in the participants' story-construction phase (Pennington & Hastie, 1991, 1992). The participants would have been looking for an initiating event that could have explained the psychological response of the complainant. The complainant's resistance had been overcome by the defendant – and this point was either missed by the participants or deemed inadequate. This could indicate the presence of a strongly held rape myth affecting the plausibility of the complainant's testimony and resulting in a non-significant shift in these dependent variables.

Second, consistent with Hammond et al. (2011), the strength of the participants' belief in the myth that women always resist rape could be so strong that the complainant's explanation of her behaviour alone or the expert witness testimony alone was dismissed or deemed implausible. In this case, it may not have been possible for the complainant's reasoning to counter the strength of the participants' belief in the rape myth. However, because the mean scores on the RMAS indicate that the participants had a low level of rape-myth acceptance, it is more likely that the level of ambiguity in the complainant's statement prompted them to rely on their pre-existing knowledge of rape scenarios (Dunning & Sherman, 1997). In terms of the story model, this can be explained as the level of

coherence in the statement being inadequate, meaning that the participants filled in the gaps in the story with their existing world knowledge (Pennington & Hastie, 1991, 1992), which in this case is a rape myth. It must also be noted that the level of uniqueness in the defendant's testimony was affected by the level of coherence of the testimony.

Finally, the principle of uniqueness must be examined in the context of both testimonies. The defendant's statement may have been equally coherent when considered with and without the complainant's cognitive statement, suggesting that the latter did not add substantially more coverage or coherence to the complainant's testimony compared with the defendant's testimony. Essentially, it may be that neither of the complainant's versions of events had the level of uniqueness needed to create a viable choice. Further, the failure to establish a causal link between the complainant's versions of events and contribute to the perception of the defendant as dangerous added to the lack of coherence, undermining the impact of the complainant's cognitive statement in generating uniqueness. This resulted in two viable stories that could be matched to a verdict category: a) the complainant's story was acceptable and the defendant was guilty of rape, and b) the defendant's story was acceptable and he was therefore not guilty. Therefore, in this case the participants were faced with an inability to determine credibility, blameworthiness and guiltiness.

Limitations

Aside from the constraint of sampling university students, which has been shown to affect only specific aspects of mock jurors' ratings (Bornstein, 1999; Breau & Brook, 2007), one limitation of this research is the length and complexity of the vignette. As one of the first studies to explore the impact of explaining counter-intuitive behaviour, the vignette was designed to be simple and thus create a level of sensitivity that would reveal any potential effects. This approach, although useful in determining

whether or not the subject matter is worthy of further research, meant that the size of the vignette does not reflect the complexity, length and disjointed nature of the process of presenting evidence that is typical for a trial of this nature. Therefore, the stages of evidence evaluation proposed by Pennington and Hastie (1991, 1992) may not have operated in a way that is consistent with that expected of jurors in a real trial setting. Further, individual jurors' decisions can change during the group deliberation process, and this change usually results in the delivery of a more conservative decision (Devine, Buddenbaum, Houpp, Stolle, & Studebaker, 2007). The findings of the present study however do suggest that there is some merit in conducting further studies on these research questions under more ecologically valid conditions.

Practical implications

The results of this study can be used by prosecutors to inform the construction of more effective legal arguments by including explanatory cognitive statements and expert witness testimony in rape cases. Although in the present study the inclusion of both of these statements did not affect the participants' ratings of defendant guilt, they did show a change in the ratings of the defendant. This suggests that this combination of evidence has at least impacted on the mock juror's perception of the defendant. The participants were also significantly more likely to use reasoning based on the legal definition of rape when one or both statements were present. This study provides evidence to suggest that it may be in the best interests of the prosecution to take active measures to seek ways of submitting the complainant's explanatory statements into the legal proceedings. Further, the inclusion of these statements has the potential to result in more evidence-based, legally focused decisions from jurors, contributing to verdicts that could be considered more just.

Ethical standards

Declaration of conflicts of interest

Mr Nathan Ryan has declared no conflicts of interest.

Dr Nina Westera has declared no conflicts of interest.

Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent

Informed consent was obtained from all individual participants included in the study.

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