

Constructing Truth in the Jury Box in Serious Sexual Offence Cases

Dr Rebecca K. Helm*
University of Exeter Law School

In many common law jurisdictions, the jury have a key role to play in adjudicating cases involving serious sexual offences. Key aspects of these offences can often only be evaluated through scrutiny of complainant and defendant testimony, without strong corroborative evidence. Concerns have been raised about the appropriateness of the jury to perform this task, primarily due to the potential influence of “rape myths” (also known as “false assumptions”) on jury decisions. This article cohesively examines how jurors are likely to function in assessing complainant and defendant credibility absent strong corroborating evidence in an attempt to move the discussion in this area beyond rape myth endorsement only. It draws on findings identified from a review of research on determinations of truth in basic and applied cognitive science and accompanying theory to suggest that assessment of credibility is likely to be a constructive process undertaken by amalgamating a range of context with statements themselves., and to highlight how systematic biases and misconceptions may feed into decision-making through this process. It concludes by drawing on the analysis to suggest that the jury can be an appropriate decision-making body in cases involving serious sexual offences but that evidence-based policy is needed to guide the function of the jury to ensure consistency with normative legal goals.

I. Introduction

In cases involving serious sexual offences in common law jurisdictions, jurors often have to make decisions about whether they believe a complainant’s or defendant’s account of events, with little or no corroborative case evidence.¹ For example, in cases involving rape in England and Wales, the law asks jurors not only whether they can be sure that penetration occurred but also whether they can be sure that the complainant did not consent to the penetration and that the defendant did not reasonably believe that the complainant consented.² Jurors therefore need to consider questions that can often only be answered by examining the credibility of complainant and defendant accounts. Did the complainant consent to sexual intercourse? Did the defendant believe that the complainant consented? And was anything said that would have made the complainant’s consent (or lack of consent) clear to a reasonable defendant? In these cases, a primary function of the jury is to assess the accounts given by the defendant and complainant and to determine whether they can be sufficiently sure that the complainant is telling the truth to convict the defendant. Of course, jurors in many case types are often tasked with evaluating the credibility of complainants and defendants. However, the nature of sexual offence cases means that evidence other than complainant and defendant testimony can be limited. As a result, the interpretation of testimony is not steered by interpretation of other evidence, and is a more central task of

* This research is funded by a UK Research and Innovation Fellowship [MR/T02027X/1]. I am grateful to Professors Caroline Fournet, Richard Moorhead, and Fiona Leverick for their comments on previous drafts of this article.

¹ Crown Prosecution Service, ‘Applying the Code for Crown Prosecutors to Rape and Serious Sexual Offences’ (2021) < <https://www.cps.gov.uk/legal-guidance/rape-and-sexual-offences-chapter-2-applying-code-crown-prosecutors-rape-and-serious>>, stating that “Many RASSO cases will feature limited or no corroborative evidence.”

² See Sexual Offences Act 2003, s1

jurors. The centrality of complainant and defendant testimony (as opposed to forensic evidence, expert testimony, or eyewitness testimony) means that the role of the jury and, relatedly, the way that the jury can be expected to function, is often different in cases involving serious sexual offences than it is in cases involving many other crimes. The judgements the jury are required to make can be subjective and personal – often involving scrutiny of the character of the complainant as well as the defendant in an attempt to gain insight into the likely veracity of allegations being made,³ and the range of interpretations of testimony open the door to a number of undesirable influences on the decision-making process.⁴ Legal commentators and policy-makers have noted potentially problematic influences on the jury in these types of case,⁵ and have argued that successful prosecution rates are too low.⁶

In the context of current attempts to improve the investigation and prosecution of serious sexual offences in England and Wales,⁷ interventions to improve complainant experience in these cases,⁸ and debate in other jurisdictions relating to whether the jury is an appropriate fact-finder in these cases,⁹ consideration must be given to how the jury decide whether to believe a complainant in cases of this type, and how procedure might help to improve such decisions. However, while policy reports have drawn on the experience of legal professionals and research examining factors influencing the jury, existing examinations of jurors as decision-makers in cases involving serious sexual assaults have not had a strong foundation in the cognitive processes underlying human credibility judgments. Concerns relating to the performance of the jury have largely been focused on ‘rape myths’ (also known as false assumptions) and how to correct them, rather than the broader decision-making process. In

³ It has previously been observed that “perhaps the most unique feature of rape cases is the extent to which alleged victims are essentially ‘on trial,’ arguably as much as alleged perpetrators”; P. O. Rerick, T. N. Livingstone, and D. Davis, ‘Rape and the jury’ in W.T. O’Donohue and P. A. Schewe (eds.), *Handbook of Sexual Assault and Sexual Assault Prevention* (Springer, 2019).

⁴ See R. A. Schuller, B. M. McKimmie, B. M. Masser, and M.A. Klippenstine, ‘Judgements of sexual assault: The impact of complainant emotional demeanour, gender, and victim stereotypes’ (2010) 13(4) *New Criminal Law Review* 759, 760. Note, this is not intended to suggest that evidence in sexual assault cases is always ambiguous, but just that evidence in these cases is often *more ambiguous* (i.e., open to competing interpretations) than evidence in other types of case.

⁵ See, for example, F. Leverick, ‘What do we know about rape myths and juror decision making?’ (2020) 24(3) *The International Journal of Evidence and Proof* 255; J. Chalmers, F. Leverick, and V. Munro, ‘Why the jury is and should still be out on rape deliberation’ (2021) 9 *Criminal Law Review* 753; D. Willmott, D. Boduszek, A. Debowska, and L. Hudspith, ‘Jury decision-making in rape trials: An attitude problem’ (2021) 8 *Forensic Psychology* 94.

⁶ See, for example, End Violence Against Women, *CPS Data Shows Survivors Still Being Failed as Record Numbers of Sexual Offences are Recorded* (2022) <<https://www.endviolenceagainstwomen.org.uk/cps-data-survivors-failed-record-number-sexual-offences/>>; L. Kelly, J. Lovett and L. Regan, *A Gap or a Chasm? Attrition in Reported Rape Cases* (Home Office, 2005).

⁷ HM Government, *The End-to-End Rape Review Report on Findings and Actions* (2021) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1001417/end-to-end-rape-review-report-with-correction-slip.pdf>

⁸ See, for example, L. Hoyano, ‘Cross-examination of sexual assault complainants on previous sexual behaviour: Views from the barristers’ row’ (2019) 2 *Criminal Law Review* 77; Ministry of Justice, *Pre-recorded Evidence for Rape Victims Available Nationwide* (2022) <<https://www.gov.uk/government/news/pre-recorded-evidence-for-rape-victims-available-nationwide>>.

⁹ Scottish Courts and Tribunals Service, *Improving the Management of Sexual Offence Cases*, (2021) <<https://www.scotcourts.gov.uk/docs/default-source/default-document-library/reports-and-data/Improving-the-management-of-Sexual-Offence-Cases.pdf?sfvrsn=6>>; Law Commission of New Zealand, *The Justice Response to Victims of Sexual Violence, Criminal Trials and Alternative Processes* (2015) <<https://www.lawcom.govt.nz/sites/default/files/projectAvailableFormats/NZLC-R136-The-Justice-Response-to-Victims-of-Sexual-Violence.pdf>>.

this paper, I draw on findings of work examining determination of truth, identified through a review of research in basic and applied cognitive science and underlying theory, in order to provide a framework of how jurors are likely to evaluate testimony in these cases and to examine the biases and misconceptions likely to influence them and the appropriateness of the jury as a legal decision-making body in this context.¹⁰ This new framework is intended to supplement rather than replace existing models of juror decision-making, by examining influences on the evaluation of complainant and defendant testimony specifically (rather than making predictions about the overall juror decision process e.g., the application of legal standards). The leading model of juror decision-making, the Story Model, suggests that jurors construct causal models (narratives) to explain available facts, and base decisions on evaluations of those narratives.¹¹ The framework proposed in this article provides insight into how jurors are likely to evaluate competing narratives when those narratives are largely formed from competing testimony, for example through providing insight into how jurors might evaluate the plausibility of competing testimony (a key component of narrative evaluation in the Story Model). This framework can therefore supplement the Story Model (although it can also supplement other models of jury decision-making).¹²

The proposed framework highlights the importance of endorsement of incorrect beliefs relating to rape but extends the discussion of potentially problematic features of juror decisions into new areas which, importantly, can be drawn on to create intervention to improve jury function in this area. The paper concludes by suggesting that the jury can be an appropriate decision-making body in cases involving serious sexual offences, but that new evidence-based policy is needed to ensure that decisions are made consistently with normative legal principles.

II. Existing Concerns About the Jury: Rape Myths

The Criminal Procedure Rules note that convictions should be accurate, and obtained in a fair and rights compliant way (elements of dealing with cases *justly*). In the context of jury judgements relating to credibility in complainant and defendant testimony, a key component of ensuring that convictions are accurate (to the extent possible) and obtained fairly is ensuring that decisions are driven by probative information and not misconceptions or biases about particular groups of people (e.g., people of a particular sex or race). However, existing research suggests that both misconceptions and biases may be feeding into juror decisions in this area, particularly in the form of rape myths – “descriptive or prescriptive beliefs about rape (i.e., about its causes, context, consequences, perpetrators, victims, and their interaction)

¹⁰ This research adds to existing literature seeking to draw on evidence from science to improve the way serious sexual offences are handled in the criminal justice system. See, for example, P. Radcliffe, G. Guðjónsson, A. Heaton-Armstrong, and D. Wolchover (eds.), *Witness Testimony in Sexual Cases* (Oxford University Press, 2016). Note that none of the research identified has examined decisions directly in the context of juror decision-making and deliberations in real cases, which is not possible to examine in a fully controlled way (since real cases differ from each other in more than one meaningful way) and due to restrictions on discussing deliberations in real cases. However, while additional influences may operate in real cases, the basic cognitive processes underlying construction of truth would be expected to replicate.

¹¹ N. Pennington and R. Hastie, ‘Explaining the evidence: Tests of the Story Model for juror decision-making’ (1992) 62(2) *Journal of Personality and Social Psychology* 189.

¹² See, for example, N. Kerr, ‘Stochastic models of juror decision-making’ in R. Hastie (ed.), *Inside the Juror* (Cambridge University Press, 1993), describing stochastic models; D. J. Devine, *Jury Decision-Making: The State of the Science* (New York University Press, 2012) ch 8, describing the “Director’s Cut” model of juror decision-making.

that serve to deny, downplay, or justify sexual violence.¹³ These myths may feed into the decision process as a result of being endorsed by jurors, but also sometimes through influencing conceptions of what jurors believe constitute ‘reasonable’ beliefs for the purposes of the reasonable belief test.

Importantly, rape myths are often completely inconsistent with what experts know about how sexual offences occur in practice. For example, while some believe the myth that if a woman doesn’t physically fight back, it wasn’t rape, research shows that the fear response actually means that it is very common for victims of rape to find that they cannot move or speak.¹⁴ Despite the fact that rape myths represent false beliefs, relatively extensive research examining both mock cases and real cases and utilising a range of methodologies and participant samples has highlighted a risk that these beliefs influence jury decisions both in terms of what serious sexual offences are expected to look like, and how victims are expected to behave (both inside and outside of court) after an offence has occurred.¹⁵ Although some recent work has raised questions about whether a sufficient number of jurors endorse rape myths for that endorsement to be a problem,¹⁶ the weight of evidence continues to at least highlight a risk that rape myths are influencing juries.¹⁷ On that basis, legal directions were introduced seeking to combat the influence of rape myths. In 2008, the Court of Appeal endorsed the practice of judges providing juries with directions to counter the risk that myths and stereotypes, specifically relating to how individuals react to sexual assault, and what can be interpreted from delayed reporting of sexual assault, would influence jury decisions.¹⁸ The Crown Court Compendium now provides guidance for judges on directing the jury to counter rape myth beliefs. The guidance states: “There is no typical rape, typical rapist, or typical person that is raped. Rape can take place in almost any circumstance. It can happen between all different kinds of people. And people who are raped react in a variety of different ways.¹⁹” Directions are also used in a similar way in other jurisdictions seeking to counter any potential impact of rape myths.²⁰

However, while both the discussion of rape myths and strategies to counter their influence represent important progress in this area, current literature fails to engage with specific cognitive processes that underly the influence of rape myths, and thus strategies to reduce their impact may be limited. This suggestion is supported by mock jury work showing

¹³ H. Gerger, H. Kley, G. Bohner, and F. Siebler, ‘The acceptance of modern myths about sexual aggression scale: Development and validation in German and English’ (2007) 33 *Aggressive Behavior* 422, 423.

¹⁴ See, for example, B. P. Marx, J. P. Forsyth, G. G. Gallup, T. Fusé, and J. M. Lexington, ‘Tonic immobility as an evolved predator defense: Implications for sexual assault survivors’ (2008) 15(1) *Clinical Psychology: Science and Practice* 74.

¹⁵ O. Smith, *Rape Trials in England and Wales: Observing Justice and Rethinking Rape Myths* (Palgrave MacMillan, 2018); L. Ellison and V. E. Munro, ‘Of ‘normal sex’ and ‘real rape’: Exploring the use of socio-sexual scripts in (mock) jury deliberation’ (2009) 18 *Social and Legal Studies* 291.

¹⁶ C. Thomas, ‘The 21st century jury: Contempt, bias, and the impact of jury service’ (2020) 11 *Criminal Law Review* 987.

¹⁷ J. Chalmers, F. Leverick, and V. Munro, ‘Why the jury is, and should still be, out on rape deliberation’ (2021) 9 *Criminal Law Review* 753; E. Daly, O. Smith, H. Bows, J. Brown, J. Chalmers, S. Cowan, M. Horvath, F. Leverick, J. Lovett, V. Munro, and D. Willmott, ‘Myths about myths? A commentary on Thomas (2020) and the question of jury rape myth acceptance’ (2022) 7(1) *Journal of Gender Based Violence* 1.

¹⁸ JD [2008] EWCA Crim 2557; [2009] Crim. L.R. 591.

¹⁹ s20 Crown Court Compendium Part 1: Jury and Trial Management and Summing Up, see also R v Miller [2010] EWCA Crim 1578.

²⁰ See, for example, J. Quilter, L. McNamara, and M. Porter, ‘New jury directions for sexual offence trials in New South Wales: The importance of timing’ (2022) 46(3) *Criminal Law Journal* 138.

inconsistent effects of directions seeking to counter rape myths,²¹ even including unintended effects where directions have appeared only to generate scepticism against a complainant.²² In addition, even where directions are effective at changing the general beliefs of a potential juror, this change may not translate when applied to a concrete decision-making task such as having to find a particular defendant guilty or not guilty.²³ Understanding the cognitive processes that are likely to underly credibility judgments in juries has the potential to both inform better policy relating to rape myths, and to highlight areas in which evidence-based policy might be needed to improve the accuracy and fairness of juror decision-making.

III. Credibility Judgments and the Construction of Truth

Research has shown that it is incredibly difficult, if not impossible, to identify cues in statements themselves (i.e., without external corroboration) that demonstrate whether a person is telling the truth or lying.²⁴ Even cues that people often consider as characteristic of dishonesty and unreliability may be explained in a range of other ways. For example, inconsistency might be seen in someone who is lying but might also be seen in someone who has experienced trauma-related memory problems or just normal memory decline.²⁵ The lack of cues indicating honesty or deception in statements themselves means that judgements of whether a statement is likely to be true or false (at least in the absence of corroborating case evidence) are constructive judgements, formed from amalgamating a range of context with statements themselves. We make adaptive best-estimates as to truth based on a range of inferences, learned through our environment, that are generally conducive to accuracy in everyday life. For example, research has shown that in general people have a bias towards believing that others are telling the truth (referred to as a ‘truth bias’).²⁶ This bias makes sense since people learn through experience and, as a generalisation, most of us are more likely to encounter truth than lies in our daily lives.²⁷ In the context of high-stakes constructions of truth, examining the likely inferences underlying decision-making can

²¹ Chalmers, Leverick, and Munro (n 13): 244.

²² F. T. Nitschke, B. M. McKimmie, and E. J. Vanman, ‘The effect of trauma education judicial instructions on decisions about complainant credibility in rape trials’ (2022) *Psychology Public Policy and Law* 69. This study found that both standard judicial instructions on evaluating evidence given by a witness (used in the Queensland Supreme and District Court) and trauma focused instructions (explaining how trauma symptoms can influence the way complainants’ show emotion) unexpectedly reduced perceptions of the complainant’s credibility. The authors speculated that the instructions may have had this effect due to undermining people’s confidence in heuristic cues that they may have relied on, leaving them uncertain of what to rely on, and sceptical of the complainant as a result.

²³ See discussion on abstract v applied myths in Daly et al. (2022) (see n 18).

²⁴ See, for example, C. Bond and B DePaulo, ‘Accuracy of deception judgments’ (2006) 10(3) *Personality and Social Psychology Review* 214; M. Hartwig and C. Bond, ‘Why do lie-catchers fail? A lens model meta-analysis of human lie judgments’ (2011) 137(4) *Psychological Bulletin* 643.

²⁵ See R. P. Fisher, A. Vrij, and D. A. Leins, ‘Does testimonial inconsistency indicate memory inaccuracy and deception? Beliefs, empirical research, and theory’ in B. S. Cooper, D. Griesel, and M. Ternes (eds.), *Applied Issues in Investigative Interviewing, Eyewitness Memory, and Credibility Assessment* (Springer, 2013).

²⁶ C. F. Bond and B. M. DePaulo, ‘Accuracy of deception judgments’ (2006) 10(3) *Personality and Social Psychology Review* 214; C. Unkelback, ‘Reversing the truth effect: Learning the interpretation of processing fluency in judgements of truth’ (2007) 33 *Journal of Experimental Psychology: Learning, Memory, and Cognition* 219.

²⁷ B. M. DePaulo, D. A. Kashy, S. E. Kirkendol, M. M. Wyer, and J. A. Epstein, ‘Lying in everyday life’ (1996) *Journal of Personality and Social Psychology* 79; R. Halevy, S. Shalvi, and B. Verschuere, ‘Being honest about dishonesty: Correlating self reports and actual lying’ (2013) 40(1) *Communication Research* 54; K. B. Serota, T. R. Levine, and J. B. Boster, ‘The prevalence of lying in America: Three studies of self-reported lies’ (2010) 36 *Human Communication Research* 2.

provide insight into the ways that known influences (e.g., rape myths) have their influence, and also other problematic factors that may be feeding in to the decision process.

Existing research has categorised three types of inference that are amalgamated in constructions of truth – inferences from consistency with existing beliefs, inferences from feelings (subjective experience of statements), and inferences from base rates (underlying prevalence of alleged events).²⁸ In the following discussion, I combine literature on each of these types of inference with research on jury decision-making (primarily experimental mock jury work) in order to provide a framework for understanding the construction of truth by jurors in cases involving serious sexual offences, and to identify misconceptions and biases that are likely to be important in that process.

A. Inferences From Beliefs

Perhaps most obviously, people are influenced by their beliefs when determining what is true. Existing beliefs may relate to an offence (as in the case of rape myths), but could also relate to beliefs about cues indicating deception more generally. The jury system relies on people having reliable beliefs and instincts relating to deception gained from their experiences of human interaction that they can apply when assessing the testimony of others, and courts sometimes speak of jurors applying their own common sense in making these judgments. For example, the Supreme Court of Canada has noted that that the trier of fact can “use common sense and wisdom gained from personal experience in observing and judging the trustworthiness of a particular witness on the basis of factors such as testimony and demeanour.”²⁹ In England and Wales, the Court of Appeal have called on juries in rape cases to rely on their own “experience and knowledge of human nature and modern behaviour.”³⁰

However, these cues have the potential to be misleading, and behaviours people associate with deception may not indicate deception at all, particularly in this context. In fact, there is clear evidence that many beliefs of laypeople may be inconsistent with evidence on deception detection.³¹ For example many people believe that whether someone is telling the truth or lying can be determined by examining non-verbal behaviours such as gaze aversion, fidgeting, or nervousness or characteristics of verbal accounts such as consistency.³² Robust research suggests that any cues that are at all probative in distinguishing deception from the truth are often only weakly diagnostic, and can all be the result of other states.³³ Most problematically in the context of serious sexual offences, many of the cues that people typically associate with lying – including gaze aversion, fidgeting, nervousness or inconsistency,³⁴ are predictable in victims of trauma, including victims of serious sexual assault.³⁵

²⁸ N. M. Brashier and E. J. Marsh, ‘Judging Truth’ (2020) 71 Annual Review of Psychology 499.

²⁹ R v S. (RD) [1997] 3 SCR 484.

³⁰ R v Olugboja [1982] QB 320, 327.

³¹ For related discussion, see J. Chalmers, F. Leverick, and V. E. Munro, ‘Handle with care: Jury deliberation and demeanour-based assessments of witness credibility’ 26(4) International Journal of Evidence and Proof 381.

³² A. Vrij, L. Akehurst, and S. Knight, ‘Police officers’, social workers’, teachers’ and the general public’s beliefs about deception in children, adolescents, and adults’ (2006) 11 Legal and Criminological Psychology 297.

³³ B. M. DePaulo, J. J. Lindsay, B. E. Malone, L. Muhlenbruck, K. Charlton, and H. Cooper, ‘Cues to deception’ (2003) 129(1) Psychological Bulletin 74.

³⁴ Vrij, Akehurst, and Knight (see n 33).

³⁵ For research outlining some of the psychological impacts of sexual assault (including Post Traumatic Stress Disorder) see J. Petrack and B. Hedge, *The Trauma of sexual assault: Treatment, Prevention, and Practice*

B. Inferences From Feelings

A range of work shows that information or explanations that are cognitively easy to process are more likely to be accepted as true. This reality has been demonstrated by work showing that even changing the way information is presented to make it easier to process (i.e., changing its processing fluency) makes it more believable for decision-makers. One study showed that the same statements were rated as more likely to be true when presented in a font that made them easier to read,³⁶ and another found that claims made by native speakers were rated as more likely to be true than claims made in a foreign accent.³⁷

These inferences are adaptive and on the whole are likely to increase accuracy (despite also causing systematic mistakes in particular situations, as described above). In everyday life, fluency can lead to the correct judgement relatively quickly. As has been noted in prior work, “statements accompanied by a feeling of ease are more likely to be true than those that feel strange or difficult to understand.”³⁸ Thus, human decision-makers are likely to learn to rely on fluency as a heuristic to indicate truth. A related heuristic with the potential to be important in the jury decision-making process is known as the simulation heuristic, which leads people to accept claims or explanations as true more often when they are easier to imagine for them.³⁹ In the context of allegations of serious sexual assault, inferences from feelings have the potential to be important through providing another avenue through which rape myths may have an influence (even after being dispelled) and in highlighting other potentially problematic influences on decisions.

In terms of rape myths, inferences from feelings allow stereotypes about serious sexual offences to have an impact even where people do not actually endorse rape myths (at least in the sense that they are traditionally discussed). For example, a person may not believe that rape is *always* violent or involves physical force, but they may find it easier to picture a rape occurring that involves physical force than without it. This effect may persist even if a person knows logically that rape doesn't always or even often involve physical force, and may explain research showing that even people who don't endorse rape myths do appear to be influenced by the sentiments underlying them.⁴⁰ In this context, it is important to understand the schemas (mental representations) that people have of typical sexual offences. The more a

(Wiley, 2002). For research demonstrating the association between Post Traumatic Stress Disorder and memory inconsistency, see J. Herlihy, P. Scragg, and S. Turner, ‘Discrepancies in autobiographical memories – Implications for the assessment of asylum seekers: Repeated interviews study’ (2002) 324 *British Medical Journal* 324.

³⁶ R. Reber and N. Schwartz, ‘Effects of perceptual fluency on judgements of truth’ 8 *Consciousness and Cognition* 338.

³⁷ S. Lev-Ari and B. Keysar, ‘Why don't we believe non-native speakers? The influence of accent on credibility’ (2010) 4(6) *Journal of Experimental Social Psychology* 1093. Neuroimaging research supports the contention that this type of effect, known as an illusory truth effect, is associated with fluency, see W. Wang, N. M. Brashier, E. A. Wing, E. J. March, and R. Cabeza, ‘On known unknowns: Fluency and the neural mechanisms of illusory truth’ (2016) 28(5) *Journal of Cognitive Neuroscience* 739.

³⁸ Brashier and Marsh (see n 29).

³⁹ D. Kahneman and A. Tversky, *The Simulation Heuristic* (Stanford University, 1981); K. E. Niedermeier, N. L. Kerr, and L. A. Messé, ‘Jurors' use of naked statistical evidence: Exploring bases and implications of the Wells effect’ (1999) 76(4) *Journal of Personality and Social Psychology* 533.

⁴⁰ L. Ellison and V. E. Munro, ‘Getting to (not) guilty’ (2009) 30(1) *Legal Studies* 74; J. Shaw, R. Campbell, D. Cain, and H. Feeney, ‘Beyond surveys and scales: How rape myths manifest in sexual assault police records’ (2017) 7(4) *Psychology of Violence* 602; A. Zidenberg, B. Sparks, L. Harkins, and S. K. Lidstone, ‘Tipping the scales: Effects of gender, rape myth acceptance, and anti-fat attitudes on judgments of sexual coercion scenarios’ (2019) 36(19-20) *Journal of Interpersonal Violence*.

presented account matches an existing schema, the more easily it comes to mind and the less cognitive capacity is spent on understanding the account.⁴¹ Research suggests that the schemas that people have in this area are not representative of the most common ways offences occur at all, and are often informed by damaging rape culture in society and coverage the media.⁴²

Inferences from feelings may also have a problematic influence on judgments in other ways. For example, a lack of fluency in true complainant accounts is predictable and not indicative of inaccuracy. As a result, it is problematic when a lack of fluency leads to increased doubt in a complainant. This lack of fluency may arise from trauma resulting from an offence itself, or from surrounding context such as intoxication at the time at which the offence took place. Importantly, memory errors and inconsistency are particularly predictable in those who have been subjected to trauma, including sexual offences.⁴³ Conversely, a juror may come to believe a complainant who is lying when they are able to confidently deliver a coherent story.

C. Inferences from Base Rates

Research in the field of statistical learning highlights how human decision-makers observe properties of their environment, and learn from this information.⁴⁴ In the context of deception, people will learn about the presence of truth and lies based on how often they encounter them (or have knowledge of others encountering them). People's estimates may also vary based on their experience of (or knowledge relating to) events or people of a particular type – “people will often lie to avoid punishment when they have done something wrong.” These estimates of base rate prevalence (base rates) are logically informative in assessing the likely veracity of a statement, provided they are correct and applied appropriately. They can also explain the fact that in general in everyday life people are more likely to assess statements as being true than being false (the ‘truth bias,’ mentioned above).⁴⁵ According to probability theory, these base rate estimates should be combined with evidence to reach a conclusion as to the likelihood of a particular proposition being true.⁴⁶ In real human decision-making, this influence of underlying estimates of prevalence is unlikely to be mathematical. Rather people's vague and contextual perceptions of prevalence feed through into evaluations, sometimes outside of conscious awareness. Existing research in psychology and law has confirmed that base rates indicating the prevalence of truth and lies can be influential in determining whether a person is lying in a legal context.⁴⁷ In the context of

⁴¹ R. Busselle and H. Bilandzic, ‘Measuring narrative engagement’ (2009) 12(4) *Media Psychology* 321.

⁴² See, for example, S. Sommer, J. J. Reynolds, and A. Kehn, ‘Mock juror perceptions of rape victims: Impact of case characteristics and individual differences’ (2016) 31(17) *Journal of Interpersonal Violence* 2847; G. Nilsson, ‘Rape in the news: On rape genres in Swedish news coverage’ (2019) 19(8) *Feminist Media Studies* 1178.

⁴³ For research on the association between trauma and memory errors see Herlihy, Scragg, and Turner (see n 36).

⁴⁴ See, for example S. Perkovic and J. Lund Orquin, ‘Implicit statistical learning in real-world environments leads to ecologically valid decision-making’ (2019) 29(1) *Psychological Science* 34.

⁴⁵ C. N. Street, ‘Humans as adaptive lie detectors’ (2015) 4(4) *Journal of Applied Research in Memory and Cognition* 335.

⁴⁶ See T. Donnovon and R. M. Mickey, *Bayesian Statistics for Beginners* (Oxford University Press, 2019).

⁴⁷ K. Domagalski, J. Gongola, T. D. Lyon, S. E. Clark and J. A. Quas, ‘Detecting children's true and false denials of wrongdoing: Effects of question type and base rate knowledge’ 32(6) *Behavioral Sciences & the Law* 789; R. K. Helm and B. Grows, ‘Prevalence estimates as priors: Juror characteristics, perceived base rates, and verdicts in cases reliant on complainant and defendant testimony’ (2022) 36(4) *Applied Cognitive Psychology* 891; S. M. Kassin, C. A. Meissner, and R. J. Norwick, ‘I'd know a false confession if I saw one’ (2005) 29 *Law and Human Behavior* 211.

serious sexual offences, the most relevant base rates with the potential to influence juror decisions are estimates of the comparative prevalence of true and false allegations in the context of the particular offence. Research with mock jurors has confirmed that giving information to change perceptions of base rates to mock jurors can shift their evaluations of testimony in predictable ways.⁴⁸

Unfortunately, quantifying how common false allegations are is a difficult task. In 2005, the Home Office sought to quantify the rate of false allegations through analysing over 2,643 cases of alleged rape over a 15-year period, and drawing on multiple sources of data to identify false allegations.⁴⁹ Other evidence-based studies have reached relatively similar conclusions, leading researchers to estimate that somewhere between 2% and 10% of allegations of rape are false.⁵⁰ However, perhaps as a result of the uncertainty surrounding prevalence in this area as well as high profile media relating to both true and false allegations, reported estimations vary widely. In 2006, a review of studies examining false reports in the context of sexual offences found estimates ranging from 1.5% of allegations being false to 90% of allegations being false.⁵¹ In this context, statements relating to prevalence are often made in the absence of reliable data,⁵² and different groups form different conclusions as to relevant prevalence.⁵³ Conflicting reports combined with polarisation create a situation in which misunderstandings and / or biased and polarised estimates might be driving juror judgements. Importantly, one recent study found that in England and Wales people significantly overestimate the prevalence of false allegations.⁵⁴ In that study, participants estimated on average that 14.5% of allegations of rape were false. Experimental research has demonstrated the potential for these overestimations to influence evaluations of a claimant alleging sexual assault.⁵⁵

IV. Conclusions: Shaping the Construction of Truth

Understanding that jurors are likely to combine case evidence with inferences from knowledge / beliefs, feelings, and base rates to make judgments of truth is important in evaluating the role of the jury, and in developing policy to help jurors make more accurate and fair decisions. This type of policy is crucial, particularly given recent increases in cases

⁴⁸ R. K. Helm, 'Adaptive lie detection and perceived prevalence of false reports in evaluation of sexual offence allegations' (2023). *Journal of Applied Research in Memory and Cognition*. Advance online publication.

⁴⁹ Kelly et al. (see n 7)

⁵⁰ D. Lisak, L. Gardinier, S. C. Nicksa, and A. M. Cote, 'False allegations of sexual assault: An analysis of ten years of reported cases' 16(12) *Violence Against Women* 1318.

⁵¹ P. N. Rumney, 'False allegations of rape' (2006) 65(1) *Cambridge Law Journal* 128. Note that the study estimating a 90% rate of false allegations was based on only 18 cases and relied on the assumption that allegations that are retracted by a complainant are false, which is not necessarily the case; C. H. Stewart, 'A retrospective survey of alleged sexual assault cases' (1981) 28 *Police Surgeon* 32. See also discussion in W. T. O'Donohue, 'Understanding false allegations of sexual assault' in W. T. O'Donohue and P. A. Schewe (eds.), *Handbook of Sexual Assault and Sexual Assault Prevention* (Springer 2019) ch 32.

⁵² See, for example H. MacDonald, 'The Campus Rape Myth' *City Journal* (2008) <<https://www.city-journal.org/html/campus-rape-myth-13061.html>>

⁵³ Helm and Grown (see n 48); R. R. Ortiz and A. M. Smith, 'A social identity threat perspective on why partisans may engage in greater victim blaming and sexual assault myth acceptance in the MeToo era' (2022) 28(5) *Violence Against Women* 1302.

⁵⁴ Helm (see n 49).

⁵⁵ Helm (see n 49).

involving rape reaching court.⁵⁶ Importantly, examining the way that truth is constructed in human decision-making provides important reasons to retain the jury as a legal decision-making body in these cases. The cues that we rely on in constructing truth are informed by our experiences (which will differ from the experiences of others), and our evaluations of others can be subtly influenced by their characteristics and behaviour. A key advantage of the jury in this context is the diversity of viewpoints feeding into the process. Collective wisdom and learning can drive judgments in an area where human experience can provide subtle and adaptive insight.⁵⁷ However, it is wrong for the system to presume that this insight is always correct and to neglect close examination of areas where that insight may compromise accuracy and fairness. This paper has highlighted some such areas. Fortunately, these weaknesses are possible to address. Below are some initial suggestions that might be helpful to consider in order to address potential areas of weakness that have been identified. These suggestions are not intended as concrete proposals, but as ideas that might be explored and taken forward in the future.

First, directions should continue to target flaws in knowledge and beliefs and should expand to include other relevant misconceptions in addition to rape myths. But it should not be presumed that simply providing jurors with information will be effective.⁵⁸ Especially where incorrect beliefs are strongly held, jurors will require education (information that will allow them to meaningfully engage with and understand information they are provided with) rather than simple statements, to help them recognise existing beliefs as incorrect, and to facilitate understanding of what sexual offences can really look like, rather than just providing information.⁵⁹ Second, juries could potentially be balanced along dimensions that make them robust to the influence of systematic misconceptions, for example in terms of gender. One implication of the research discussed above is that decision-making in cases involving serious sexual offences can be polarised. For example, research has explicitly shown that men and women differ in their beliefs about the characteristics of sexual offences⁶⁰ and the prevalence of serious sexual offences.⁶¹ In this context, it is important to consider whether it might be appropriate to seek balance on juries to ensure that the majority of jurors are not from one group with the potential to hold mistaken or biased beliefs (which can then become over-represented in the decision process) in order to create fair juries that are not biased towards either the prosecution or the defence. Currently juries hearing cases involving serious sexual offences can be made up of more members of one gender than the other, purely as a result of random selection processes.⁶² This representation is important given the likely existence of a

⁵⁶ Ministry of Justice, *Rape response overhaul delivers progress* (2022) <https://www.gov.uk/government/news/rape-response-overhaul-delivers-progress?utm_medium=email&utm_source=monthly+bulletin>

⁵⁷ See, for example, James Surowiecki, *The Wisdom of Crowds: Why the Many are Smarter than the Few* (Doubleday, 2005).

⁵⁸ J. Cooper, 'Judges as myth-busters: A re-examination of jury directions in rape trials' (2022) 31(4) *Griffith Law Review* 485.

⁵⁹ R. K. Helm, 'Evaluating witness testimony: Juror knowledge, false memory, and the utility of evidence-based directions' (2021) 25(4) *International Journal of Evidence & Proof* 264; A. M. Jones, 'Improving juror sensitivity to specific eyewitness factors: Judicial instructions fail the test' (2020) 27(3) *Psychiatry, Psychology and Law* 366.

⁶⁰ See, for example, M. Davies and S. McCartney, 'Effects of gender and sexuality on judgements of victim blame and rape myth acceptance in a depicted male rape' (2003) 13(5) *Journal of Community & Applied Social Psychology* 391.

⁶¹ Helm and Grows (see n 48)

⁶² See, for example, C. Gallagher, 'Women under-represented on juries in serious criminal trials' *The Irish Times* (17 July 2017) <<https://www.irishtimes.com/news/crime-and-law/women-under-represented-on-juries-in-serious-criminal-trials-1.3156886>>

majority effect in jury decisions, such that the probability of the verdict favoured by an initial group of jurors becoming the final verdict is higher when there are more jurors in that initial group.⁶³ Third, further restrictions could be placed on cross-examination procedure. Traditional cross-examination can be combative, with the potential to traumatise vulnerable trial participants and to disproportionately disrupt their ability to deliver their account in a fluid way.⁶⁴ In addition, cross-examination often elicits and draws attention to cues that are known to be misleading to jurors when constructing truth – including the presence of minor internal inconsistencies in recollection.⁶⁵ Existing intervention has made relatively modest changes to cross-examination in this area – for example through restricting the use of irrelevant or prejudicial lines of questioning.⁶⁶ However, further change is necessary to prevent cross-examination from becoming a tool through which factors likely to mislead the jury are exploited. One intervention with the potential to improve the quality of judgments in this area might be to allow questions for complainants to be submitted to the court for scrutiny during preliminary hearings, to ensure that these questions and responses to them are not likely to be misleading.⁶⁷ Note that Ground Rules hearings were proposed for Scotland by the Dorrian Review, precisely for this purpose.⁶⁸ Such an intervention could also prevent inappropriate questioning, which current restrictions may be struggling to address.⁶⁹ The ability of complainants to pre-record their evidence under Section 28 of the Youth Justice and Criminal Evidence Act 1999, recently made available across England and Wales for complainants in rape cases,⁷⁰ may also be helpful in reducing trauma and, relatedly, preventing unnecessary erosion of the fluency of complainant accounts. These types of intervention have the potential to reduce the impact of misconceptions and biases in cases involving serious sexual offences, while preserving the benefits of trial by jury, which may be even more significant than usual in cases where judgments are so reliant on sometimes subtle and adaptive cues.

⁶³ D. Devine, *Jury Decision Making: The State of the Science* (New York University Press 2012) ch 2.

⁶⁴ See, for example, D. Breteton, 'How different are rape trials? A comparison of the cross examination of complainants in rape and assault trials' (1997) 37 *British Journal of Criminology* 242; Victims' Commissioner, *2020/2021 Annual Report* (2021) <<https://s3-eu-west-2.amazonaws.com/jotwpublic-prod-storage-1cxo1dnrmkg14/uploads/sites/6/2021/12/VC-annual-report-2020-21-FINAL.pdf>> 23, describing a survey with nearly 500 survivors of rape which found that among those survivors who went to court, more than three-quarters found cross-examination traumatising. Although note that cross-examination today is likely significantly more sensitive than it was in the past, particularly with regard to evidence on previous sexual behaviour, see Hoyano (see n 9).

⁶⁵ For some other problems with cross-examination see J. Molina and S. Poppleton, 'Rape Survivors and the Justice System' (2020).

⁶⁶ For a discussion of recent reforms, see V. E. Munro, 'A circle that cannot be squared? Survivor confidence in an adversarial justice system' in M. A. Hovarth and J. M. Brown (eds.), *Rape Challenging Contemporary Thinking – 10 Years On* (Routledge, 2022).

⁶⁷ V. E. Munro (see n 67)

⁶⁸ Scottish Courts and Tribunals Service (see n 10)

⁶⁹ Victims' Commissioner (see n 65). In the Scottish context see *MacDonald v HM Advocate* [2020] HCJAC 21. Although see also Hoyano (see n 9).

⁷⁰ Ministry of Justice (see n 9).