# RESEARCH PROJECT BRIEFING:
# Evaluation of non-expert witness testimony in jury trials

## WHO ARE WE?

We are an interdisciplinary research group at the University of Exeter, led by Professor Rebecca Helm. We specialise in conducting research in behavioural and data science that can help understand how legal procedures operate in practice, and how that operation can be improved.

## WHAT ARE WE DOING?

In this project, funded by UK Research and Innovation, we are trying to understand how juries work when examining non-expert testimony (i.e., testimony from eyewitnesses, complainants, and defendants). This includes understanding:

- How jurors make judgments about whether a person is telling the truth (the credibility of the witness),
- How jurors make judgments about whether a person's memory is accurate (the accuracy of the witness's statement), and;
- How jurors combine individual judgments in these areas during jury deliberations.

Legal procedure typically assumes that people are well-placed to evaluate the credibility and accuracy of non-expert witnesses as a result of their own experiences, however there are clear areas where these experiences may result in bias and inaccuracy. The areas we have focused our initial research on are:

- How people make judgments about the memory of others, including how their own experience can be biasing in making these judgments.
- What influences people when they make judgments about whether others are telling the truth in the context of allegations of serious sexual offences, and when these influences lead to (and do not lead to) accurate and fair legal decision-making.
- How the characteristics of people evaluating testimony can influence their assessments of whether others are telling the truth, specifically in the context of allegations of serious sexual offences.
- How legal procedures including judicial instructions can be utilised to bring decision processes in this area better in line with the goals of the legal system.
- How miscarriages of justice have occurred as a result of misleading non-expert witness testimony in practice.

## WHY ARE WE DOING IT?

It is possible to make concrete statements about the likely accuracy of some types of evidence (for example, with DNA evidence we can provide the probability of a sample being a random match as opposed to coming from a specific source). There are no similar robust indicators of reliability applicable to witness testimony, leaving significant room for interpretation of this type of evidence by jurors. It is therefore particularly important to understand the processes through which jurors evaluate this evidence, the extent to which these processes are consistent with accurate and fair decision-making, and how legal procedure might be tailored to improve decision-making in this area.

One reason this is important is that jurors can be asked to evaluate the credibility and accuracy of complainant and defendant testimony in situations where this testimony is the primary evidence of an alleged crime in particular types of case, including serious sexual offences and domestic violence cases. How jurors evaluate non-expert testimony has implications for the quality of trial verdicts, and therefore should be drawn on to inform associated policy, guidance, and trial management.

## WHAT WE'VE FOUND SO FAR

1. Judgments about the memory of others.

Current legal procedure presumes that jurors are well-placed to assess the accuracy of the memory of others in most cases, because they have their own experiences with memory. However, our research shows that our own experience of memory is not necessarily informative, and can even be biasing, in making judgments relating to the memory of others. This research has largely been in the basic science of memory evaluation, and is now being extended into more applied legal contexts.

In our first experimental study, we asked one set of participants to make predictions about their own ability to remember faces that they had seen and another set of participants to make predictions about the ability of another person to remember the same faces. **We found that while participants were somewhat accurate in making predictions relating to their own memory, their predictions about the memory of others were no more accurate than chance** (meaning the same accuracy would be expected by throwing a dice to make judgments).

In our second experimental study, we gave participants images of people to view, and asked the participants whether they would expect a witness to remember that person if they saw them at a crime scene. Importantly, the described view that the witness had of the person at the crime scene was different from the view that participants had of the person. For example, participants might have seen the person close-up, but have been told that the witness had seen them from four meters away. We found that the way the participant saw the person influenced how likely they thought it would be that a witness would remember them, even though the witness saw them in a different way. This finding highlights how juror experience of a stimulus might be biasing – where a stimulus is memorable for a juror, it will increase their expectation that it would or should be remembered by another person, even where the memorability for the juror is only a product of how they themselves saw the stimulus in court.

This research highlights the fact that juror experience with memory is not necessarily conducive to making accurate predictions about the memory of others, and that under predictable conditions that experience may even be biasing. **Careful consideration needs to be given to when and how jurors should draw on their own experience in evaluating the memory of others, and when and how instructions or education might facilitate more appropriate evaluation of memory.**

## 2. Judgments about the credibility of others alleging (or denying) serious sexual offences.

Our research draws on existing work in cognitive science about the inferences that are important to people when making judgments about the credibility of others. We have drawn together existing research to examine what is likely to influence jurors in making judgments about who to believe in cases involving serious sexual offences (where complainant and defendant testimony is the only primary evidence) and have also conducted original experimental work to examine how these influences are likely to be operating in modern juries. Our work highlights the constructive nature of credibility determinations, and the importance of surrounding context, beliefs, and feelings in influencing juror judgment.

**One finding from our work is that it is likely that jurors are systematically over-estimating the prevalence of false allegations**, and that this over-estimation is likely to be influencing credibility judgments in practice – specifically leading people to downgrade their ratings of how credible a complainant is. This work has also shown how differences in perceptions of how common false allegations (and underlying offences) are can partly explain why male and female jurors, and jurors with different cultural worldviews, tend to reach different verdicts in these cases. **The systematic differences in decision-making, particularly among male and female jurors, suggests consideration should be given to gender balance on juries in these cases.**

Importantly, the work shows how biases and misconceptions may feed into the jury decision-making process in cases involving serious sexual offences, even where jurors do not explicitly endorse "rape myths." This reality is important because existing interventions to improve the quality of decisions in this area still largely focus on dispelling rape myths, rather than broader, potentially problematic, influences on decision-making.

## 3. Designing instructions to facilitate accurate evaluations of memory.

The instructions currently given to jurors   in cases in which eyewitness memory is central evidence rely on providing jurors with information and presuming that the information will (1) effectively lead jurors to change their beliefs, and (2) allow jurors to effectively apply the information in the case they are deciding. However, psychological theory suggests that merely providing jurors with information may not do either of these things effectively.

Our work has drawn on psychological theory to design and test evidence-based instructions with the potential to more effectively lead to belief updating in jurors, and to allow jurors to apply information in practice. **In an experimental study comparing the instructions we have devised to more standard instructions in a case context, our instructions (but not the more standard instructions) brought juror beliefs more in line with scientific evidence, and also fed through appropriately into mock legal judgments.**

## 4. The importance of memory and credibility evaluations in practice.

We run a large online miscarriages of justice registry in which we log and categorise cases in which criminal convictions in the UK have been overturned based on error of fact. By examining cases in this registry, we can understand better how potentially important factors which can contribute to miscarriages of justice are operating in practice.

The current registry (which can be searched [here](#)) contains details of 466 miscarriages of justice that have occurred in the UK since 1970. Of these, 25.32% involved misleading eyewitness evidence from a non-complainant and 11.59 involved misleading witness testimony from a complainant. **We have begun to examine the characteristics of these cases in order to better understand miscarriages of justice in this area and how they might be addressed.**

## WHAT WE'RE LOOKING FOR

To enable our research to have real-world impact, we want to work with / consult those involved with the justice system on our work.

- Are there any questions you'd like us to explore in future research looking at non-expert witness testimony and how might you use this research in your work?
- Do you have any feedback on current findings and how they might helpfully be used to inform practice?
- Do you have a particular interest in any aspect of the work, and would you like to be kept updated of our progress?

## NEXT STEPS

Our research in this area is ongoing. In addition to considering how what we have already done can be useful to judges, policy makers and lawyers, we are currently working on a set of studies to evaluate comprehensively how jurors are likely to be functioning when making these decisions, and how that function can be improved. This work involves conducting legal research to examine what juries *should* be doing in these cases, and drawing on psychological theory and existing work to inform experimental studies in which we can examine influences on juror decisions, and the causal paths through which these influences have their effect. Ultimately, we plan to develop a full set of proposals as to how evidence-based procedure can effectively improve juror evaluations in this area, to protect defendants and complainants and to promote the integrity of the criminal justice process more generally.

## PUBLICATIONS FOR FURTHER READING

**The anatomy of "factual error" miscarriages of justice in England and Wales: A fifty-year review.** Criminal Law Review. Rebecca K. Helm (2021).

**Evaluating witness testimony: Juror knowledge, false memory, and the utility of evidence-based directions.** The International Journal of Evidence and Proof. Rebecca K. Helm (2021)

**Predicting and projecting memory: Error and bias in metacognitive judgements underlying testimony evaluation.** Legal and Criminological Psychology. Rebecca K. Helm, Bethany Growns (2022)

**Prevalence estimates as priors: Juror characteristics, perceived base rates, and verdicts in cases reliant on complainant and defendant testimony** Applied Cognitive Psychology. Rebecca K. Helm, Bethany Growns (2022)

**Written evidence submitted to the Home Affairs Committee Inquiry into the Investigation and Prosecution of Rape** Dr Rebecca K Helm (2022)

**Adaptive lie detection and perceived prevalence of false reports in evaluation of sexual offence allegations**. The Journal of Applied Research in Memory and Cognition. Dr Rebecca K Helm (in Press)

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