Institution: Royal Holloway, University of London

Unit of Assessment: Psychology, Psychiatry, & Neuroscience

Title of case study: Fundamental Research on Memory Enables a Robust Criminal Justice System

1. Summary of the impact (indicative maximum 100 words)

The development of a robust criminal justice system is vital in any civilised society and benefits victims, witnesses, police, suspects, and the general public. Research in the Department of Psychology at Royal Holloway, University of London has investigated fundamental principles underlying memory retrieval in the context of criminal justice scenarios in which memory may be particularly vulnerable. This research has had major impacts on the way in which police interview witnesses to a crime, and on the way in which video identification parades are conducted. It has also led indirectly to significant developments in the way in which evidence from very young children is treated in court.

2. Underpinning research (indicative maximum 500 words)

This research has been led by Professor Amina Memon, who joined the Department of Psychology in 2009. Though her research on psychological aspects of the procedures for interviewing witnesses naturally stretches back to her earlier appointments, Memon has consolidated this programme of research at Royal Holloway. This new research has made a *material and distinct contribution* to creating impacts of considerable reach and significance. Memon has been supported by a team of postdoctoral researchers and PhD students at Royal Holloway including Dr. Julie Gawrylowicz, Dr. Katie Maras, Mr. Gary Dalton, Dr. Ruth Horry, Ms. Jess Darby, and Ms. Francesca Ainsworth.

Memon was one of the first researchers in the UK to study the psychological aspects of the Cognitive Interview, a technique for interviewing witnesses based on theoretical principles of memory retrieval. Supported by grants from the ESRC, NSF, Leverhulme Trust and British Academy, Memon's rigorous laboratory and field work in her previous posts was instrumental in isolating the effective components of the Cognitive Interview, and in evaluating how the Cognitive Interview compares to other interviewing techniques.

Since her appointment at Royal Holloway, Memon has advanced this body of research through EU funding (2009-2010) by conducting a major meta-analysis and study-space analysis covering 25 years of research on the Cognitive Interview [1]. This piece has revealed (a) that the Cognitive Interview results in a large and significant increase in the recall of correct details from witnesses and no increase in confabulation relative to a control structured interview; (b) that the Cognitive Interview improves the reliability of older witnesses' memories in particular; and (c) that the Cognitive Interview can be shortened and simplified under certain conditions to assist in the interview of vulnerable witnesses such as older adults (see also [2]). Subsequent funding from the Leverhulme Trust (2010-2012) allowed Memon's research group to discover why it is that the Cognitive Interview assists the memory retrieval of older adults in particular, and funding from the ESRC (2012-2013) enabled the development of Cognitive Interview procedures for people with autistic spectrum disorder.

Since her appointment at Royal Holloway, Memon has also established a completely new line of research that is already delivering significant and far-reaching contributions to the development and assessment of video identification parades (i.e. video 'line-ups'). Video identification parades can reduce distress for witnesses, and can be conducted more easily and efficiently than live parades. Yet, they were introduced in over 30 police forces across the UK in the absence of empirical evidence of their performance compared to live parades. Recent research by Memon's

group at Royal Holloway has established that while video parades yield the same 'hit' rate as live parades (i.e. choosing the suspect), they also yield a significantly larger number of 'false alarms' (i.e. choosing a volunteer instead of the suspect) than live parades under certain conditions [3-5]. In the light of these results, Memon's group used ESRC Knowledge Transfer funding (2010-2011) to analyse details of in-house identification procedures from every police force in England, Wales, and Northern Ireland. Results showed substantial inconsistency in the procedures and practices used during video parades, leading Memon to propose national guidance detailing standardised procedures to which all police forces should adhere.

3. References to the research (indicative maximum of six references)

Outputs

1. Memon, A., Meissner, C. A., & Fraser, J. (2010). The cognitive interview: A meta-analytic review and study space analysis of the past 25 years. *Psychology, Public Policy, & Law, 16*, 340-372.

2. Holliday, R., Humphries, J., Milne, R., Memon, A., Houlder, L., Lyons, A. & Bull, R. (2012). Reducing misinformation effects in older adults with cognitive interview mnemonics. *Psychology & Aging, 27,* 1191-1203.

3. Horry, R., Memon, A., Wright, D. & Milne, R. (2012). Predictors of eyewitness identification decisions from video lineups in England: A field study*. Law & Human Behavior, 36*, 257–265.

4. Havard, C., Memon, A., Laybourn, P., & Cunningham, C. (2012). Own-age bias in video lineups: A comparison between children and adults. *Psychology, Crime & Law, 18,* 929-944*.*

5. Havard, C., Memon, A., Clifford, B. & Gabbert, F. (2010). A comparison of video and static photo lineups with child and adolescent witnesses. *Applied Cognitive Psychology, 24,* 1209- 1221.

6. Memon, A., Havard, C., Clifford, B., Gabbert, F., & Watt, M. (2011). A field evaluation of the VIPER system: A new technique for eliciting eyewitness identification evidence. *Psychology, Crime, & Law, 17,* 711-729*.*

Research Funding

2012-2013, Economic & Social Research Council – Postdoctoral Fellowship to Katie Maras. Eyewitness testimony by adults with autistic spectrum disorder. £83,917.

2010-2012, The Leverhulme Trust. Improving accuracy in forensic interviews via meta-cognitive monitoring (PI). £96, 449

2010-2011, Economic & Social Research Council – Knowledge Transfer. Making the best use of video identification parades and meeting the needs of vulnerable witnesses (PI). £70,638

2007-2010, European Framework Programme "New and Emerging Science and Technology". The assessment of eyewitness memory accuracy: A multi-componential correspondence-oriented approach (PI). Royal Holloway budget £97,184

Other Evidence of Quality

Memon is Fellow of the Royal Society of Arts, the British Psychological Society, and the Association for Psychological Science.

4. Details of the impact (indicative maximum 750 words)

This research is delivering substantial and far-reaching impacts on aspects of the criminal justice

system including the development of protocols for interviewing witnesses, the development of standardised procedures for staging video identification parades, and the development of processes for handling children and other vulnerable witnesses. The beneficiaries of this research are: (a) victims and witnesses, who are questioned using evidence-based techniques for recovering reliable information about a crime; (b) police, who by using standardised and evidence-based processes are less likely to see their evidence challenged in court; (c) judges and juries, who are better able to reach the correct verdict as a result of reliable evidence presented to them; (d) suspects, who as a result of robust evidence-based investigative processes are less likely to be wrongly accused; and (e) the general public, who benefit from a fair and effective criminal justice system.

Interview Protocol. Royal Holloway research on the Cognitive Interview has had a significant impact both nationally and internationally on the way in which police gather information from witnesses. The Cognitive Interview is recommended in the Ministry of Justice national guidance on how to question witnesses and vulnerable witnesses ("Achieving Best Evidence in Criminal Proceedings" March, 2011, where Memon's work is cited), and is used by every police force in England and Wales. The Cognitive Interview has also been used in Iceland, Finland, France, Spain, Belgium, Brazil, South Africa, Brunei, the Netherlands, Germany, Israel, Cyprus, Canada, USA, Portugal, Greece, Australia, Mauritius, Norway, New Zealand, and Singapore.

This research has also achieved impact through training that Memon delivers to professionals who conduct investigative interviews. For example, Memon recently delivered a two-day workshop on the Cognitive Interview which attracted over 40 professionals including representatives from the police and judiciary from Brazil, Canada, Finland, France, Sweden, Norway, Spain, and the UK (2011). This training is directly informed by research conducted at Royal Holloway. For example, one of the most important contributions of Memon's meta-analysis is that a modified version of the Cognitive Interview can be as effective as the full Cognitive Interview [1]. Hence, in the delivery of training, Memon presents this modified version as a viable alternative, thus dealing with concerns about the time and resource needed to conduct the full Cognitive Interview. Similarly, the meta-analysis [1] revealed that using the Cognitive Interview as soon as possible after a crime has been committed can reduce forgetting of critical detail compared with the standard interview. Memon communicates this finding through training that she offers, and the Cognitive Interview has now been introduced as a tool for frontline investigators, who are most likely to be the first to arrive at the scene of a crime.

Video Identification Parades. Royal Holloway research on the potential shortcomings of video identification parades [3-5] led directly to the development of standardised guidance on the procedures that should be followed when conducting such parades. This guidance (developed by Memon) has now been approved and endorsed by the Association of Chief Police Officers and the Crown Prosecution Service (2013). It has already resulted in changes in the practices of several police forces (Surrey, Northumbria, Devon and Cornwall Police, Gwent, West Yorkshire and the Police Service in Northern Ireland), and will shortly be implemented nationally.

Protocols for Treating Child Witnesses. Royal Holloway research on interviewing children and other vulnerable witnesses (e.g. [5]) has led indirectly to significant developments in the treatment of evidence from child witnesses. Following an appeal in 2009 against conviction in *R v Barker* (the sister of Baby P), the Ministry of Justice invited Memon to review research on the factors that could impact upon the reliability of evidence from young children. This review has played an instrumental role in informing the courts about the problems of lengthy time delays between investigation and trial in cases in which young children are involved. This research on child witnesses has also created impacts at grass-roots level through the training that Memon delivers. For example, Memon recently delivered a series of half-day modules on assessing the reliability and credibility of witnesses, as part of the training provided to new and experienced Justices of the Peace (JPs) in Scotland (2010-2011). These events attracted approximately 70 experienced JPs and 160 new JPs. The deputy chair of the Judicial Studies Committee Scotland praised these training events, writing in a letter to Memon that "I have spoken to many JPs who ...have told the JSC that [Memon's training] has had a significant impact in changing the way they go about the

task of examining the evidence presented to them in court.... I am confident that this improvement will have contributed to the delivery of just outcomes in our judicial process in Scotland".

5. Sources to corroborate the impact (indicative maximum of 10 references)

1. The Ministry of Justice national guidance on interviewing witnesses recommends use of the Cognitive Interview and can be found here: (http://www.cps.gov.uk/publications/docs/best_evidence_in_criminal_proceedings.pdf). Memon's work is cited in the document.

2. The role of Memon's research in the development of the Cognitive Interview and her role in training members of the police and judiciary on its use can be verified by the Principal Research Officer, National Policing Improvement Agency.

3. The role of Memon's research in developing the national guidance for use of video identification parades can be verified by the Deputy Chief Constable, Warwickshire Police.

Confirmation that this guidance has been approved by the Crown Prosecution Service can be obtained through Crown Advocate, Organised Crime Division.

4. The role of Memon's research in developing procedures around the treatment of evidence from child witnesses can be verified by the National Vulnerable Witness Adviser, Specialist Operations Centre.

5. Memon's role in training new and experienced JPs can be verified by the all Scotland Sheriff, Kirkcaldy Sheriff Court.