

Institution: University of Warwick		
Unit of Assessment: A4 - Psychology, Psychiatry and Neuroscience		
Title of case study: Maximising the Probative Value of Witness Evidence in International Commercial Disputes		
Period when the underpinning research was undertaken: 2009 – 2019		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Kimberley Wade	Reader	2004 - present
Period when the claimed impact occurred: 2016 – 2020		
Is this case study continued from a case study submitted in 2014? N		
1. Summary of the impact (indicative maximum 100 words)		
<p>Governments and multinational companies use international arbitration to resolve high-stakes commercial disputes. In 2018 alone, the International Court of Arbitration administered 842 cases worldwide involving over 2,000 parties from 135 countries, with \$45 million (USD45,000,000), on average, in dispute. International arbitration hearings frequently hinge on witness evidence, yet there were no formal guidelines about who may serve as a witness, or how their evidence should be collected and presented, and such procedures are critical in producing accurate eyewitness accounts. Research conducted at Warwick has fundamentally changed the way in which arbitration practitioners view, collect and use witness evidence. A scientific report for the <i>International Chamber of Commerce, International Court of Arbitration</i> by eyewitness expert Dr Kimberley Wade has led to the creation of the first evidence-based policy and guidelines for the arbitration community. Wade's research has also played a key role in professional training programmes for legal practitioners.</p>		
2. Underpinning research (indicative maximum 500 words)		
<p>Erroneous witness testimony is a significant societal problem within the criminal justice context, with substantial personal and financial consequences for those who are wrongly convicted. Research conducted by Dr Kimberley Wade, Reader in Psychology, since 2004 at the University of Warwick has examined the malleability of witness memory. Across 45 published studies, Wade's research shows that adults can be wildly wrong both about details of events they have witnessed, as well as entire, self-involving events that never happened [e.g., 3.1, 3.2].</p> <p>Wade's longest running line of research has explored how suggestive interviewing techniques can lead people to construct wholly false memories of significant, personal experiences. In these studies, adults are asked to reminisce about fictitious childhood events, sometimes with the aid of real or doctored photographs to help "jog" their memory. These studies have repeatedly shown that healthy adults can come to report detailed and compelling accounts of events that never happened. A recent mega-analysis led by Wade revealed that 30% of individuals in such <i>memory implantation studies</i> typically report distorted autobiographical beliefs or memories [3.3]. Crucially, Wade's work has shown that the propensity of false memories increases when participants are provided with idiosyncratic personal information, encouraged to repeatedly imagine suggested events, or receive verbal suggestions without corresponding photographic evidence.</p> <p>Wade's research has also demonstrated how witnesses who observe crimes can misremember details after viewing misleading evidence [e.g., 3.4] or discussing that criminal event with others [e.g., 3.5]. In 2018, Wade co-led a large-scale, many-lab experiment that revealed how co-witnesses frequently contaminate one another's memory reports when they discuss shared</p>		

experiences, and this **co-witness suggestibility effect** is strong, robust and common to many cultures [3.5].

Wade's research has produced at least four other key applied findings. First, memory distortions can be held with great confidence, emotion, detail and coherency, making it **difficult to distinguish** between genuine and distorted memory reports [3.6]. Second, people rely on “**cheap and easy**” strategies to verify their personal memories, a tendency that serves to maintain rather than extinguish memory errors [3.7]. Third, **false memories can be consequential**: they can influence a person's attitudes, intentions and behaviours. In 2009, Wade developed a novel paradigm to explore the power of suggestive interviewing techniques to induce people to actually testify about, or confess to committing, a mock crime that did not happen [3.4]. In one study, a significant minority of people accused of stealing money in an online gambling task falsely confessed to the misdemeanour and demonstrated belief in their own guilt. Fourth, a witness' **personal beliefs and biases** can affect what they remember [e.g., 3.2]. Taken together, Wade's substantial body of research illustrates the very real risk of witnesses providing erroneous testimony when interviewers—either deliberately or unintentionally—manipulate a witness' recollections.

In terms of psychological theory, Wade's research has shown that procedures which encourage interviewees to speculate about, elaborate on, or imagine counterfactual experiences foster memory distortions. These processes serve to blur the phenomenological difference between internally-generated and externally-perceived (real) memories, leading witnesses to misattribute imagined events to genuine experiences. Wade's empirical research and theory development highlight the need for research-led policy, practice, and training on how best to elicit witness testimony and maximise the probative value of witness evidence across various settings, including commercial disputes.

3. References to the research (indicative maximum of six references) **Warwick = Bold**

All research papers were published in peer-reviewed journals

[3.1] Colloff, Melissa F., Wade, Kimberley A., and Strange, D. (2016) *Unfair lineups make witnesses more likely to confuse innocent and guilty suspects*. Psychological Science, 27 (9). pp. 1227-1239. doi:[10.1177/0956797616655789](https://doi.org/10.1177/0956797616655789). Paper cited in the American Psychology-Law Society whitepaper on eyewitness identification evidence in 2019.

[3.2] Wade, Kimberley A., Garry, Maryanne, Nash, Robert A., and Harper, David N. (2010) *Anchoring effects in the development of false childhood memories*. Psychonomic Bulletin & Review, Vol.17 (No.1). pp. 66-72. doi:[10.3758/PBR.17.1.66](https://doi.org/10.3758/PBR.17.1.66)

[3.3] Scoboria, A., Wade, Kimberley A., Lindsay, D. S., Azad, T., Strange, D., Ost, J. and Hyman, I. E. (2017) *A mega-analysis of memory reports from eight peer-reviewed false memory implantation studies*. Memory, 25 (2). pp. 146-163. doi:[10.1080/09658211.2016.1260747](https://doi.org/10.1080/09658211.2016.1260747)

[3.4] Wade, Kimberley A., Green, Sarah L. and Nash, Robert A. (2010) *Can fabricated evidence induce false eyewitness testimony?* Applied Cognitive Psychology, Vol.24 (No.7). pp. 899-908. doi:[10.1002/acp.1607](https://doi.org/10.1002/acp.1607)

[3.5] Ito, Hiroshi et al. (19 authors, **Wade listed 9th**) (2019) *Eyewitness Memory Distortion Following Co-Witness Discussion: A Replication of Garry, French, Kinzett, and Mori (2008) in Ten Countries*. Journal of Applied Research in Memory and Cognition, 8 (1). pp. 68-77. doi:[10.1016/j.jarmac.2018.09.004](https://doi.org/10.1016/j.jarmac.2018.09.004)

[3.6] Nash, Robert A., Wade, Kimberley A., and Lindsay, D. Stephen (2009) *Digitally manipulating memory: Effects of doctored videos and imagination in distorting beliefs and memories*. Memory and Cognition, Vol.37 (No.4). pp. 414-424. doi:[10.3758/MC.37.4.414](https://doi.org/10.3758/MC.37.4.414)

[3.7] Wade, Kimberley A., Nash, Robert A. and Garry, Maryanne (2014) *People consider reliability and cost when verifying their autobiographical memories*. *Acta Psychologica*, 146. pp. 28-34. doi:[10.1016/j.actpsy.2013.12.001](https://doi.org/10.1016/j.actpsy.2013.12.001)

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

Dr Wade's research has increased awareness amongst arbitration professionals of the malleability of witness memory, underpinned policy and practice and informed professional training.

Governments and multinational companies use international arbitration to resolve high-stakes commercial disputes. The International Chamber of Commerce (ICC), *International Court of Arbitration* (hereafter, the *Court*)—established in Paris, 1923—is the gold standard in arbitral institutions and oversees more than 45 million companies in 100+ countries. In 2018 alone, the Court administered 842 cases involving 2,282 parties from 135 countries, with \$45 million (USD45,000,000) on average in dispute. The Court has a Commission of over 1000 senior arbitration experts which creates policy that governs all aspects of the arbitral process. Legal counsel and arbitrators from around the world look to the Commission for guidelines and best practice.

In 2015, the Commission established an international *Task Force* of 152 arbitration experts. Wade was invited to be the first, and only, scientific advisor appointed to the Commission **[5.1]**. She joined four senior arbitral experts based in the US, France, Germany and the UK, to steer the Task Force, whose mandate was to consider the practices used in international arbitration and to determine how best to maximise the reliability of witness evidence. The ICC Commission Chair and Secretary stated: *“The need to look at the psychological aspects and impact of memory on witness evidence was crucial to be able to understand the accuracy of witness evidence in the arbitral process and the interdisciplinary nature of the work of this Task Force, which would not have been possible without the research and contribution of Dr Wade...”* **[5.2]**.

International arbitration proceedings frequently hinge on witness evidence, and the time, effort and cost dedicated to collecting and preparing witness testimony are considered justified because they assist tribunals in reaching just decisions **[5.2]**. Yet that justification is brought into question if the witness evidence is unreliable. Despite the vital role of witness evidence in international arbitration, there were no formal guidelines about who may serve as a witness, and how witness evidence should be prepared, presented and evaluated. Through regular discussions with the Task Force, Wade determined that arbitration practitioners frequently prepared and presented witness evidence using techniques that could corrupt evidence and undermine the fairness of the arbitral process.

From January 2017, Wade regularly presented to the Task Force and wider Commission, to both in-person and remote audiences of upwards 150 arbitral experts. During the inaugural Task Force meeting (Paris, February 2017), Wade explained the application of scientific research to legal settings, including high-stakes commercial disputes and the science demonstrating the malleability of witness memory **[5.3]**. Wade has also attended regular meetings with the Task Force steering group and directly influenced the group's strategic approach to affecting change within the arbitration community **[5.2, 5.3]**. The task force management group affirms that Dr Wade's *“contribution to the Task Force cannot be overstated ... Without Dr. Wade's research work, knowledge, and relentless dedication, the project would not have been possible”* **[5.3]**.

In 2018, Wade co-authored a scientific review paper with Dr Ula Cartwright-Finch, a member of the task force steering group and an international arbitration lawyer based in London **[Appendix 1 of 5.4]**. This review was written specifically for arbitration experts and described the relevance of Wade's research to witness evidence in international arbitration proceedings. The review discussed how suggestive interviewing techniques foster false memories, the co-witness suggestibility effect, and the consequences of false memories. The review also outlined key areas in which eyewitness research is conflicting or sparse and cannot yet inform legal practice. For instance, Wade informed the Commission that research on cross-examination style questions and

their impact on human memory was relatively weak, which led the Task Force to refrain from making new recommendations with respect to cross-examination in international arbitration [5.5].

Through ongoing discussions with the Commission, Wade also discovered that many arbitration professionals were sceptical about the generalizability of witness research to civil law contexts. Practitioners claimed they would be unwilling to change their practice without some compelling demonstration that the procedures they currently use for preparing and presenting witness evidence were corrupting that evidence. This led Wade to design and execute (independent) applied research at the University of Warwick that clearly demonstrated the extent to which witnesses in arbitration proceedings were prone to providing erroneous testimony. She tested over 300 professionals working across a range of industries and in a wide range of roles, from skilled labourers, senior managers, to CEOs. The results showed that witness memory in international arbitration is subject to the same distorting effects that research has proven exists in other domains. Suggestive interviewing techniques (e.g., asking leading questions, exposure to misinformation), witnesses' personal beliefs and biases (e.g., loyalty to one's employer), and misleading evidence can distort witness testimony in commercial disputes. This research is published in the Task Force's final report [5.4] and was presented to more than 1000 arbitration professionals at the 2018 annual Commission conference [5.6]. The work stimulated further witness research in civil law contexts, thereby strengthening and extending the evidence base for informing future guidelines for arbitration professionals.

In her role as scientific advisor to the Commission, Wade co-produced the International Chamber of Commerce's evidence-based guidelines on maximizing the probative value of witness evidence in international arbitration. The guidelines were published as part of the Task Force's final report in April 2020 [Section 4 in 5.4] and Wade's research played a key role in guiding the remit of the report. Most importantly, the report described multiple measures that arbitration practitioners should adopt to enhance the reliability of witness evidence. For example, the guidelines state that an arbitral tribunal should "give instructions to the witness prior to his/her examination at the hearing by alerting the witness about the importance of distinguishing between personal knowledge and information gained post-event from secondary sources." [5.4]. These recommendations were guided by Wade's own research and the scientific review written by Wade and Cartwright-Finch. Highlighting Wade's key role, the Task Force co-chairs state, "The Task Force benefitted from the expertise of Dr Kimberley Wade at the University of Warwick, who undertook a series of field studies designed to determine the vulnerability of memory in the context of a commercial dispute not atypical of the disputes that are routinely resolved in arbitration" and that they are "deeply grateful to Wade for her insights in support of the Task Force". [5.4].

Wade's research on the malleability of witness memory is frequently used to train arbitration professionals and has influenced how practitioners view and obtain witness evidence. Ula Cartwright-Finch, the Managing Director of Cortex Capital, a London-based training firm for the law and financial services sectors, has used Wade's research to deliver training and advice to more than 900 members of the international legal community, including in-house legal teams, arbitration judges, and arbitration lawyers at all levels of seniority. Cartwright-Finch confirms: "*Both in pitches and in the training sessions I deliver on interviewing skills, I refer to Dr Wade's studies to demonstrate the applicability of memory research and to underline the importance of handling witness evidence according to the principles discussed in the Task Force Report.*" Cartwright-Finch adds: "*...I know that lawyers are shifting the way they conduct interviews and making other strategic decisions in their cases as a result of this research, including Dr Wade's original study with the Task Force.*" [5.7]

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

[5.1] Statement from ICC Task Force Co-Chairs to the wider Task Force announcing Dr Wade's role as a scientific advisor (17 November, 2016).

[5.2] Statement from ICC Commission Chair and Secretary to the Commission outlining the importance of witness evidence in international arbitration and Dr Wade's contribution to the Task Force and guidelines (31 July, 2020).

[5.3] Statement from the ICC Task Force Management Group confirming Dr Wade's contribution to ICC meetings, conducting applied research, and drafting of guidelines (17 January, 2020).

[5.4] ICC Commission Report: The Accuracy of Fact Witness Memory in International Arbitration (April, 2020).

[5.5] Transmittal note from Co-Chairs and Vice-Chair of Task Force to ICC members highlighting key role played by Wade (February, 2019).

[5.6] ICC Executive Summary of the Commission Meeting in Rome on 6 Oct 2018.

[5.7] Statement and email from Managing Director of Cortex Capital, confirming how Wade's research is used in training programmes (31 Jan, 2020).