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"TAINTED MEMORIES:

EXPOSING THE FALLACY OF WITNESS EVIDENCE

IN INTERNATIONAL ARBITRATION"

Toby Landau QC[*]

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TAINTED MEMORIES:

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IN INTERNATIONAL ARBITRATION

*"'**Lawyer:** 'This myasthenia gravis -- does it affect your memory at all?'*

***Witness:** 'Yes.'*

***Lawyer:** 'And in what ways does it affect your memory?'*

***Witness:** 'I forget.'*

***Lawyer:** 'You forget. Can you give us an example of something that you've forgotten?'"*

- Hearing transcript series

I. Introduction

Witness evidence is a major element of most international arbitrations, subsuming time, energy and costs. Over the years we have arrived at a standardized witness evidence mechanism. Yet, once scrutinized and tested by reference to relevant scientific research, it transpires that this witness evidence mechanism is fundamentally flawed in terms of procedure, theory and assumptions. This is because our approach to witness evidence is not built on sound understanding of the workings of the human mind, and it often serves to undermine rather than assist witnesses' recollection.

In preparation for this lecture I have cantered through 20 years of scientific – and not so scientific – research that leads me to believe that the human memory is not a video recorder. It lacks record, stop, and play back functions. It is not located in any single organ but is an alliance of multiple processes. It is fragile, delicate, fallible and unreliable, and it is frequently the product of our own distortions. Often the human mind does not conjure up the actual images of an incident but a schema or a generalized representation of activities that are regular and repetitive, such as going to work, eating breakfast, or, for most of us, attending international arbitration conferences. In other words, instead of a genuine recollection we have a general mental representation of events that is derived from similar experiences, so what we think we remember is in fact a prediction about how things should unfold. This prevents the detailed encoding of information when the actual events are witnessed.

In the same way, what we remember can be influenced by what we know. We often mix our actual experience with our subjective impressions. Scientific studies – the details of which I set out below – show that we can be influenced subconsciously by certain stereotypical ideas, by general plausibility of what occurred and, of course, by external suggestions. Even the

way a question is phrased can influence our recollections. Social factors can also be influential. Those recounting an event may want to be obliging to the questioner, or may want to give an answer that elicits a certain response. Then, of course, there is the human aversion to error that is often caused by subconscious associations with humiliation or danger, and there is the enjoyment of being right. Memory naturally diminishes over time, but regular retrieval can make a recollection more vivid and the person recounting it more confident.

This *"tainted memories"* background places in a cynical light the various aspects of our treatment of witness evidence, from selection of witnesses to cross-examination and re-examination techniques.

The generally acknowledged purpose of witness statements is to ensure the orderly adducing of evidence, to reduce the length of the hearing, and to avoid evidential ambushes. Such witness statements can bear little actual relation to the independent recollection of a witness. Often drafted by lawyers in the first place and simply presented to the witness for confirmation or edits, these are highly polished, articulate, lengthy statements under the facade of recollection. Often they are far from what the witnesses would have produced if they were speaking in their own words. While the articulate, complete, confident and coherent version of events may seem more credible to tribunals, in fact, a truthful recollection of events is patchy, incomplete, and incoherent. More importantly, a truthful recollection is not always helpful to the tribunals.

Another fallacy of witness evidence is generated through witness preparation which can range from limited advice to a full-blown dress rehearsal of the hearing. The notion that going through evidence with the witness helps to refresh his or her memory has no scientific validity whatsoever. In fact, the lawyers' concept of *"refreshing the memory"* in cross-examination is a nonsense that allows an advocate to bring a witness's evidence back in line with the official case. The real benefit of witness preparation is to increase the witnesses' confidence in their memory, even if it is inaccurate, and to make witnesses ready for the *"trial by ordeal"* cross-examination.

No truth comes out in cross-examination. This is because cross-examination is just another form of memory *"prompting"*, often with some other motives thrown in it. Often the real purpose behind a lawyer's line of questioning is to get the tribunal to read a particular part of a document rather than to solicit an insight. The other side may object to the question, but if it has drawn attention to a particular paragraph of a document, it has served its purpose. Nowadays counsel are also likely to have *"one eye on the LiveNote"* in order to land as many useful phrases from the witness as possible, for extraction, collation and insertion into the post-hearing brief. The person who performs best on cross-examination is not the one with the most accurate memory of events but the well-chosen, confident witness who is less likely to resile from an adopted position.

II. Witness Evidence in Contemporary Arbitral Practice

One of the principal successes of contemporary system of international commercial arbitration – and the most frequently trumpeted one – is the harmonization of diverse

procedures and practices relating to witness examination. This harmonization is achieved through an internationally accepted model that distils and unifies cultural diversities. The origins of this model are in the truly international nature of arbitration, where tribunals, counsel, and parties come from a multitude of legal traditions. This model embodies both common law and civil law practices, and it is enshrined in numerous arbitration laws and rules.

The UNCIRAL Model Law and the UNCITRAL Arbitration Rules, for example, contain a number of provisions relating to witness evidence. The IBA Rules on the Taking of Evidence in International Arbitration expand on those provisions. There is arbitration *"soft law"* that further assists counsel by suggesting how best to adduce witness evidence.

The truth of the matter is that, as I foreshadowed in my introductory remarks, through this standardized mechanism for adducing witness evidence we have arrived at a system that is fundamentally flawed both in terms of procedure itself but also in terms of the theory and assumptions that underpin it. If we step back, dissect and analyze this system in the cold light of day, we will see with abundant clarity that this standardized mechanism simply does not withstand scrutiny.

A. The Contemporary Approach to Witness Evidence

English Litigation Genesis

As any standardized mechanism in international arbitration, the contemporary approach to witness evidence is the spread and adaptation of an Anglo-US model. Broadly, it carries with it certain recognizable features: the *"right"* witness would be identified and selected primarily by lawyers who will then interview the witness and produce a draft of the witness statement.

Historically, written witness statements are unknown in many civil law systems, and some civil law systems explicitly forbid written witness testimony.[1] The genesis of written statements is thus in England, where this has been a custom for centuries.

England and Wales are notorious for their strong oral tradition in advocacy. The procedural reforms of 1850 in both Chancery and Common Law Practice gave birth to the Chancery Procedure Act 1852 and to the Common Law Procedure Act of 1854, leading to the abolition of the older system of written interrogatories. Driving this development was the growing centrality that cross-examination had acquired in common law criminal and civil procedure in the first half of the nineteenth century. This was the period during which cross-examination became the theoretical basis of the modern law of evidence.

In 1940, John H. Wigmore[2] sang praises to cross-examination in his panegyric *"A treatise on the Anglo-American System of Evidence in Trials at Common Law"*, in which he said that

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1 D. Caron, L. Caplan & M. Pellonpaa, *The UNCITRAL Arbitration Rules: A Commentary* 620 (2006).

2 John H. Wigmore was a prominent American jurist and a recognized expert in the law of evidence. He taught at the Keio University in Tokyo; he was the dean of Northwestern Law School, and he authored "*Treatise on the Anglo-American System of Evidence in Trials at Common Law"* (1904). He is also the author of a method of graphical analysis of evidence known as the *Wigmore chart*.

cross-examination is *"the greatest legal engine ever invented for the discovery of truth"*.[3] This praise to cross-examination exemplifies an attitude that became widespread in the nineteenth century.

Sir John Frederic Wrottesley in his treatise *"The examination of witnesses in court"* tells us that prior to that destiny-forming cross-examination praise, back in late 1800s, England experienced a rise of famous cross-examiners, such as Sir William Webb Follett QC,[4] Sir Henry Hawkins PC QC,[5] Sir Charles Arthur Russell,[6] and John Duke Coleridge PC.[7] So important was cross-examination at the time that leaders would leave examination-in chief to their juniors! Thus, with cross-examination at the centre of witness evidence, we naturally see the modern day development of the witness statement phenomenon.

By the second half of the twentieth century, the evils of delays and disproportionate expenses plagued High Court litigation in England.[8] The situation was so desperate that in 1953, the Evershed Committee urged more intervention by the court in an attempt to control the high costs of litigation.[9] Little if anything came of this initiative. However, in 1988, another committee set in motion a more daring chain of reforms by proposing the modification of the adversarial system through a *"cards on the table"* approach.[10] The chief immediate consequence of this dare was the introduction, in 1922, of the compulsory exchange of witness statements before trial. The 1995 Practice Direction carried this process a good deal further;[11] witness statements were to stand as evidence in chief unless otherwise ordered, so that oral evidence would begin with cross-examination.

In 1996, Sir Harry Woolf (now Lord Woolf) published a report outlining his further reforms, which led to adoption of the Civil Procedure Rules in 1999.

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3 John H. Wigmore, *"A Treatise on the Anglo-American System of Evidence in Trials at Common Law (3rd Ed 1940) – 10 Vols – Vol 5* at sect. 1367, at 29.

4 Sir William Webb Follett (2 December 1796 – 28 June 1845) was reputed to be the "*greatest advocate of the century*". He entered the Inner Temple in 1816 and began to practice in 1821. In 1824, he was called to the Bar. He was knighted in 1835, in the midst of a successful career as a politician.

5 Sir Henry Hawkins PC QC (14 September 1817 – 6 October 1907) served as a judge of the High Court of Justice between 1876 and 1898. He became a barrister in 1858 and a Queen's Counsel in 1859. He was engaged in many of the most famous trials of the reign of Queen Victoria (the *Simon Bertrand* case, the *Roupell v Waite* case, and the *Overend-Gurney* prosecution).

6 Sir Charles Arthur Russell, Baron Russell of Killowen GCMG PC (10 November 1832 – 10 August 1900) was Lord Chief Justice of England. He entered Lincoln's Inn in 1856, and he became a Queen's Counsel in 1872. In 1893, he represented Britain in the *Bering Sea Arbitration*, his speech against the United States' contentions lasting eleven days, and was appointed GCMG for his services.

7 John Duke Coleridge, 1st Baron Coleridge, PC (3 December 1820 – 14 June 1894) was a British lawyer, judge and Liberal politician. His leading cases and judgments include *R v Coney* (1882) 8 QBD 534, *R v Dudley and Stephens* (1884) 14 QBD 273 DC, and *Gordon-Cumming v Wilson and Others* (1891) (the trial arising from the Royal Baccarat Scandal).

8 Baker, *"An Introduction to English Legal History"* (4th Ed, 2002), at 94-5.

9 Final Report of the Committee on Supreme Court Practice and Procedure (1953) Cmd 8878.

10 Report of the Review Body on Civil Justice (1988) Cm 394.

11 Practice Direction [1955] 1 All E.R. 385.

From Litigation to Arbitration

The thrilling developments in England when it comes to cross-examination and written witness statements obviously have most to do with litigation. In arbitration, these processes have taken hold relatively recently.

By way of example, the UNCITRAL Arbitration Rules were drafted to provide expressly for written witness statements only after lengthy debates and strong objections from civil law representatives.[12] The IBA Rules, as well as major institutional arbitration rules, have followed suit.[13] Since then, written witness statements have become almost a universal occurrence.[14]

Preparation of Witness Statements

In this new world system of written witness statements, there exist several different methods by which a witness statement can be compiled. Generally, however, the initial drafts of the statements are prepared by lawyers and then checked by witnesses, who suggest amendments to the drafts and then sign the statements.

Arbitration practitioners, especially from common law jurisdictions, would agree with me that it is almost never the case that a witness would draft his or her statement from scratch. The result of this process is that written witness statements are often very detailed and lengthy documents. Preparation of witness statements is something that features prominently in solicitors' narratives when they submit their bills to their clients, and that is also something that the tribunals have to deal with when allocating costs. The same approach is judiciously followed in the preparation of witness statements in reply. Lawyers would prepare the first drafts, occasionally with the witnesses' input, and the witness would review and sign the statement. In most arbitration matters, faithful to its English genesis, written witness statements stand as evidence-in-chief or direct testimony.

It has become an accepted element in international arbitration for counsel to prepare witnesses for oral testimony, in particular for cross-examination. It is, in fact, so common that it is reflected in the IBA Rules.[15] That said, there is no set standard to witness preparation across jurisdictions, and the preparation practices vary. The variation spectrum is from no preparation at all in some civil law systems, to limited preparation in England that permits

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[12] UNCITRAL Rules (1976) – Art 25(5), and now UNCITRAL Rules (2010). *See*, Summary Record of the Ninth Meeting of the Committee of the Whole (II), UNCITRAL, Ninth Session, UN Doc. A/CN.9/9/C.2/SR.9, at para 38 et seq., as quoted in D. Caron, L. Caplan & M. Pellonpaa, *The UNCITRAL Arbitration Rules: A commentary* 620 (2006).

[13] The IBA Rules (2010), p. 5: "Witness Statement" means a written statement of testimony by a witness of fact; *See* also, LCIA rules, Art 20(6).

[14] *See* generally: Buhler & Dorgan, *Witness Testimony Pursuant to the 1999 IBA Rules of Evidence in International Commercial Arbitration – Novel or Tested Standards?*, 17(1) J. Int's Arb 3 (2000); Gelinas, Evidence Through Witnesses, in Levy & Veeder (eds), Arbitration and Oral Evidence, - Dossiers – ICC Institute of World Business Law (2004), 29; Schlaepfer, Witness Statements, in Levy & Veeder (supra) at 65.

[15] *See*, for example, von Segesser, *Witness Preparation*, 20 ASA Bull 222 (2002).

only discussions directed at assessing the reliability of a witness's evidence, to a full preparation of witnesses for trial in the US.

B. Thinking behind the Contemporary Model

The general relevance of witness evidence is rooted in the common law tradition, but it has become accepted in contemporary international arbitration. Witness evidence is a key dimension alongside contemporaneous documentary record. The importance of witness evidence is in the recollections of those involved in the events that shape the parties' dispute. In particular, the first-hand knowledge of those events may become of crucial importance in fact heavy arbitrations.

It is essential for the key players – the main witnesses – to recount in a coherent and credible manner the key events of the dispute. Those recollections, if set out well, may change assumptions that the arbitrators draw from the documentary record, and they may fill the gaps where no documents are available.

It is common ground in international arbitration that written witness statements are designed to encourage the orderly adducing of evidence with all other parties given time to address the allegations set out in the witness statements, and with all parties having time to react to those allegations. Written witness statements are irreplaceable when it comes to efficiency arguments in international arbitration. They reduce the length of evidentiary hearings and they avoid evidential ambushes of which many of us have heard too many war stories.[16]

At an oral hearing, written witness statements are the key opportunity for evidence to be presented and tested. This happens through the parties' recognized and well established right to request an oral evidentiary hearing and to be given an opportunity to present evidence at such a hearing, particularly if – as in most cases – a hearing is requested by one or more parties. If an oral evidentiary hearing is so requested, the parties have an undisputed right to such a hearing under most national laws and arbitration rules.[17] Gary Born in his monumental treatise on international arbitration acknowledges that:

> *"Failure to hear oral evidence, when requested by a party to do so, would invite a challenge to the resulting award for failure to afford the protesting party the opportunity to present its case."*[18]

In an adversarial system, preparing the presentation of evidence effectively is often said to be one of the adversarial advocate's most important tasks:

> *"… Because the evidence presented at trial is the basis on which the fact finder will establish what happened, the manner in which that evidence is*

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16 *See*, e.g. Schlaepfer, *Witness Statements*, in Levy & Veeder (supra) at 65.

17 *See*, e.e. UNCITRAL Model Law, Art 24(1); UNCITRAL Rules (2010), Art. [[15(2)]]; ICC Rules, Art 20(6); LCIA Rules, Art 19(1); IBA Rules (2010), Arts [[4(7) & 4(8)]]; ICSID Rules, Art 35.

18 G. Born, *International Commercial Arbitration*, at page 1832, albeit likely success of such a challenge will obviously depend upon the applicable arbitration law and rules, and the extent of the tribunal's procedural discretion in the particular case.

> *presented is of paramount importance. Without direct recourse to any dossier or other investigatory case file, judges and juries can decide the case based only upon what they see and hear in the courtroom. And because deciding what is seen and heard in the courtroom rests primarily upon the parties, preparing the presentation of evidence effectively is one of the adversarial advocate's most important tasks*."[19]

At a hearing, cross-examination and re-examination test the witnesses' recollection of the facts and the witnesses' credibility. This is an opportunity to distinguish between the "*actual recollection*" and the "*speculation*", or between truth and fabrication.

Various codes, rules and practice digests have emerged in the recent years, prompted by the importance of witness evidence. They have formed the generally accepted rules that there be no leading questions on re-examination, and no speculation in witness statements,[20] as well as many other rules.

C. Flaws in the Contemporary Model

As I mentioned, the contemporary model for adducing witness evidence is flawed on two levels.

First, it is flawed in practice. Many would agree that the contemporary model leaves room for abuses of witness evidence, and what it has become may only be referred to as the greatest fallacy of international arbitration. It no longer serves its intended ends.

Second, its theoretical underpinnings are flawed. The current model displays a complete lack of understanding of the nature and workings of the human memory. Its intended ends are misguided. Rather than attempting to establish the truth, the model is being routinely manipulated by counsel to fall in line with their official case.

Flaws in practice

What one sees is unsettling when one stands back and looks objectively at the reality of contemporary witness evidence practice. The unsettling elements are not necessarily present in each and every case, but they are rather frequent, and increasingly so, especially in large-scale international disputes which account for the major area of international arbitration practice.

I will start with the way counsel identify and select witnesses. *First*, as a practical reality, the witness identification and selection process is not about securing all available evidence in order to find the *"truth"*. Rather, it is a highly strategic and tactical process aimed at selecting witnesses who are best able to present and express themselves, who support the official case,

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[19] Karemaker, Taylor & Pittman (2008) (in context of criminal process), *Witness Proofing in International Criminal Tribunals: Response to Ambos*, Leiden Journal of International Law (2008), 21:917-923 (CUP).

[20] *See*, e.g. Gary Born, *International Commercial Arbitration*, at p. 1829: "*It serves neither the tribunal, nor the party relying on a witness statement, for the statement to contain speculation … .*"

who are resilient enough to withstand cross-examination, and who are able to give a favorable impression to the tribunal.

Johnny Veeder summarized what witness statements have become in the contemporary practice:

> "*Written witness statements can bear little relation to the independent recollection of the factual witness, with draft after draft being crafted by the party's lawyer or the party itself, with the witness's written evidence becoming nothing more than special pleading, usually expressed at considerable length. It rarely contains the actual unassisted recollection of the witness expressed in his or her own actual words."*[21]

My arbitrator colleagues, in particular Neil Kaplan, would agree with me that, more often than not, written witness statements produced by major arbitration practices in large-scale arbitrations are dauntingly lengthy and detailed. I have seen witness statements spilling into over eighty pages of sophisticated Victorian English, with hundreds of footnotes, *nota benes*, *inter alias*, and other beautiful legal intricacies, while the witness himself would be, for example, from Thailand and unable to utter a coherent sentence in the English language. These witness statements have very little to do with the actual words of the witness. They amount to detailed and polished legal submissions, and most tribunals regard them as such. These statements are first and foremost a key vehicle for advocacy designed to further a party's case.[22]

As set out in the *"aforementioned"* theses, those statements are drafted in the first instance by lawyers, and they are at best fleetingly *"checked"* by witnesses before signing. And then they are *"re-checked"* by lawyers. If, in the eleventh hour before the filing, a rare stubborn witness refuses to sign his lawyer-crafted statement, he would be persuasively talked to by the said lawyers, and most often than not, he would sign the statement.

The result of this process is a document that requires heightened cross-examination to test the veracity of the statements and to undo the effects of their preparation. That imposes a daunting task on a cross-examiner to *"unpack"* the statement. In this context, the questions of proportionality, utility, and relevance of such witness statement preparation arise.

Leaving that aside, another serious flaw in the contemporary witness evidence model is the witness preparation for his or her testimony at a hearing. Surprisingly, there are no uniform guidelines and no uniform restrictions on the ambit of such preparation. Because different jurisdictions adhere to different approaches to witness preparation, a question arises as to whether these diverse approaches ensure procedural equality. It has become increasingly common, especially where large US-based international firms are involved, to conduct extensive witness preparation which often includes mock arbitrations and *"devil's advocates"* questions, with lawyers stepping in the shoes of the opposing counsel and cross-examining

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[21] Veeder, Introduction, in Levy & Veeder (eds), *Arbitration and Oral Evidence*, Dossiers – ICC Institute of World Business Law (2004), at 7-9.

[22] They are full of legal language; "*aforementioned*" is my favorite tell sign.

their own witness. In the US, a case of professional negligence may be made out for an attorney who does not prepare his witness for trial.

Yet this approach to witness preparation in international arbitration is out of kilter with developments in other fields. For example, there is an ongoing debate in international criminal procedure as to whether to allow witness "*proofing*" at all. This debate is a subject of a recent series of articles in the Leiden Journal of International Law (2009-9).[23] A number of international criminal tribunals still allow witness proofing, but the aims and objectives of that process are specifically delimited. As first identified in the *Limaj* Trial Decision by the International Criminal Tribunal for Former Yugoslavia:

> *"… The process of human recollection is likely to be assisted … by a detailed canvassing during the pre-trial proofing of the relevant recollection of a witness … In particular, such proofing is likely to enable the more accurate, complete, orderly and efficient presentation of the evidence in the trial."*[24]

The International Criminal Tribunal for Rwanda gives specific guidance on witness proofing. In the *Karemata* Trial Decision, the prosecution suggested that proofing be limited to:

> *"… preparing and familiarizing a witness with the proceedings before the Tribunal, comparing prior statements made by a witness, detecting differences and inconsistencies in recollection of the witness, allowing a witness to refresh his or her memory in respect of the evidence he or she will give, and inquiring and disclosing to the Defence additional information and/or evidence of incriminatory or expulsatory nature in sufficient time prior to the witness testimony."*[25]

Further, in the *Miluntinovic* case, the prosecution at the ICTY asserted that the following additional activities also fall within acceptable proofing activities:

> *" … informing the witness on the areas likely [to] be asked in examination, cross-examination and re-examination as well as the form in which questions are likely [to] be asked and expected to be answered; informing the witness of appropriate and effective witness behaviour … ."*[26]

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[23] *See*, Karemaker, Taylor & Pittman, *Witness Proofing in International Criminal Tribunals: A critical analysis of widening procedural divergence* (2008) 21 LJIL 683; Ambos, *Witness proofing before the International Criminal Court: A reply to Karemaker*, Taylor, and Pittman (2008) 21 LJIL 911; Karemaker, Taylor & Pittman, *Witness Proofing in International Criminal Tribunals: A response to Ambos* (2008) 21 LJIL 917; Jordash, *The Practice of Witness Proofing in International Criminal Tribunals: Why the International Criminal Court Should Prohibit the Practice* (2009) 22 LJIL 501.

[24] Prosecutor v Limaj, Decision on Defence Motion on Prosecution Practice of "*Proofing*" Witnesses, Case No IT-03-66-T, 10 December 2004, at para 2.

[25] At para 15.

[26] Prosecutor v Milutinovic, Sainovic, Odjanic, Pavkovic, Lazerevic, and Lukic, Decision on Odjanic Motion to Prohibit Witness Proofing, Case No. IT-05-87-T, Trial Chamber III, 12 December 2006.

In contrast to these general witness proofing guidelines, the International Criminal Court issued a ruling, on 30 November 2007, in the first case against Congolese warlord *Thomas Lubanga*, in which the Trial Chamber of the court prohibited the practice of witness proofing or substantive preparation of evidence by the parties.[27]

The Trial Chamber of the International Criminal Court held in particular that preparation of witness testimony by the parties could lead to distortion of the truth, may come dangerously close to constituting a rehearsal of in-court testimony, could inhibit the *"entirety or the true extent of*"[28] an account, and could "*diminish what would otherwise be helpful spontaneity during the giving of evidence by a witness*."[29]

Critics of the witness proofing approach that is used by the international criminal tribunals have complained that it is far too extensive and that, in effect, it amounts to trial rehearsal and witness coaching. Others complain that such extensive witness proofing is impossible to police, and that it is impossible to draw clear lines between witness coaching and legitimate witness familiarization when this approach is applied. This leaves the procedure with gaping grey areas and subject to abuse.

The English Court of Appeal in *R v Momodou* [2005] EWCA Crim 177 summarized these difficulties at para 61:

> "*The witness should give his or her own evidence, so far as practicable uninfluenced by what anyone else has said whether in formal discussions or informal conversations. The rule [against training] reduces, indeed hopefully avoids any possibility that one witness may tailor his evidence in the light of what anyone else said, and equally, avoids any unfounded perception that he may have done so.*
>
> *These risks are inherent in witness training. Even if the training takes place one-to-one with someone completely remote from the facts of the case itself, the witness may come, even unconsciously, to appreciate which aspects of his evidence are perhaps not quite consistent with what others are saying, or indeed not quite what is required of him.*
>
> *An honest witness may alter the emphasis of his evidence to accommodate what he thinks may be a different, more accurate, or simply better remembered perception of events.*
>
> *A dishonest witness will very rapidly calculate how his testimony may be 'improved'.*

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[27] *Prosecutor v Lubanga* Decision Regarding the Practices Used to Prepare and Familiarise Witnesses for Giving Testimony at Trial, Case No. ICC-01/04-01/06, T. Ch.I, 30 November 2007. This affirmed an earlier decision by the Pre-Trial Chamber on 8 November 2006 which prohibited the prosecution from witness proofing prior to the confirmation hearing: Prosecution v Lubanga Decision on the Practices of Witness Familiarisation and Witness Proofing Case No. ICC-01/04-01/06, PTCI. Ch. I, 8 November 2006.

[28] Lubanga Tribal Decision, at para 51.

[29] *Ibid*, at para 52.

These dangers are present in one-to-one witness training."[30]

These dangers were recognized far earlier than that. Per the oft-quoted dictum of Judge Francis Finch of the New York Court of Appeals in 1880:

> "*While a discrete and prudent attorney may very properly ascertain from witnesses in advance of the trial what they in fact do know, and the extent and limitations of their memory, as a guide for his own examinations, he has no right, legal or moral, to go further. His duty is to extract the facts from the witness, not to pour them into him; to learn what the witness does know, not to teach him what he ought to know*."[31]

There are proponents of the approach to witness evidence that is applied in international criminal procedure. In support of their propositions, these proponents argue that witness proofing and preparation are essential in order to properly familiarize the witness with the tribunal procedures and to uncover all evidence otherwise unknown to all parties, in an orderly fashion.

These proponents argue that the risks of distorting evidence are manageable. These risks are mitigated by four factors:

1. cross-examination provides for an effective counterweight to the evidence being distorted by excessive preparation;

2. the ability of professional judges to police proofing and to discern the weight of evidence accordingly serves as guarantee that witness evidence will not be distorted by proofing;

3. the existence of ethical codes governing the conduct of counsel and the duties owed by counsel to the tribunal minimize the risks of evidence distortion; and

4. the contempt power of the tribunal effectively endows judges with the authority to punish those who improperly influence witness evidence.

In international arbitration, the process of preparation of witnesses already frequently exceeds even the low threshold applied in international criminal procedure. It is well known that large international law firms spend weeks if not months preparing their witnesses for a hearing. That preparation often includes mock cross-examinations, full scale rehearsals, notes to witnesses on how to answer cross-examiner's questions, and other elaborate techniques.

There exist no clear guidelines in international arbitration that would limit this practice. The concern over the excesses of witness preparation in international arbitration has brought into existence, on 27 September 2010, The Hague Principles on Ethical Standards for Counsel Appearing before International Courts and Tribunals (the Principles). Provision 6.2 of the Principles allows counsel to *"engage in pre-testimonial communication with a witness,*

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30 *R v Momodou* [2005] EWCA Crim 177, para 61.

31 In re Eldridge, 37 NY 161 (NY 1880), quoted in Amos, supra.

subject to such rules as the international court or tribunal may have adopted." However, the Principles do not offer a mechanism to police witness preparation, and they lack the four safeguards of the propriety of witness preparation.

As a result of this obvious lacuna in witness preparation, the following negative consequences have emerged in international arbitration:

1. significant investment of time and costs into preparation of witness evidence;
2. evasive and counter-productive witnesses testimony that does not assist the tribunal and often frustrates the cross-examining counsel; and
3. reduction of evidential exercise to a farce, with witness testimony becoming an exercise in acting where a premium is awarded to the best actor who behaves the best under cross-examination.

The system of witness evidence in international arbitration has become a proxy for the truth akin to trials by combat and ordeal so prominently used in our barbaric past.[32]

Witness evidence at evidential hearings

Counsel often resist to procedural time being taken away from cross-examination, and because of this resistance, it has been suggested that cross-examination is indeed the primary purpose of a hearing. Why does witness evidence occupy such a prominent space at evidential hearings? Why don't the parties use the hearings for presentation of other evidence and arguments, for example?

In fact, on cross-examination, when counsel *"unwind"* or *"unpack"* witness statements, they engage in a purely artificial exercise. The set up of the cross-examination scene itself is

[32] Trial by ordeal was a judicial practice by which the guilt or innocence of the accused was determined by subjecting him or her to a painful task. In some cases, the accused were considered innocent if they survived the test, or if their injuries healed. In others, only death was considered proof of innocence. If the accused died, they were often presumed to have gone to a suitable reward or punishment in the afterlife, which was considered to make trial by ordeal entirely fair. In the Assize of Clarendon, enacted in 1166 and the first great legislative act in the reign of King Henry II, the law of the land required that "*anyone who shall be found, on the oath of the aforesaid [a jury], to be accused or notoriously suspect of having been a robber or murderer or thief, or a receiver of them … be taken and put to the ordeal of water.*" Trial by combat was a method of Germanic law to settle accusations in the absence of witnesses or a confession, in which two parties in dispute fought in single combat; the winner of the fight was proclaimed to be right. In essence, trial by combat was a judicially sanctioned duel. It remained in use throughout the European Middle Ages, gradually disappearing in the 16th century. The practice was regulated in various Germanic legal codes and survived throughout the Viking Age in Scandinavia in the form of the "*Holmgang*". Capitularies governing its use appear from the year 803 onwards (Boretius 1.117). Louis the Pious prescribed combat between witnesses of each side rather than between the accuser and the accused, and briefly allowed for the ordeal of the cross in cases involving clerics. When Henry II reformed English civil procedure in the Assize of Clarendon in 1166, trial by jury became available, and lawyers, guarding the safety of the lives and limbs of their clients, steered people away from the wager of battle. A number of legal fictions were advised to enable litigants to avail themselves of the jury even in the sort of actions that were traditionally tried by wager of battle. The practice of averting trial by combat led to the modern concept of attorneys representing litigants. In practice, a person facing trial by combat was assisted by a second, often referred to as squire. The role of the squire was not only to attend the battle, but to arrange the particulars of the ceremony with the opposing squire. Over time, squires would meet and resolve the disputes during negotiations over combat.

artificial and divorced from the day-to-day commercial life. At the end of every hearing day the best performing witness will be rewarded for resilience, akin to trial by combat. Experienced counsel would agree that a lot of cross-examination questions that commence with *"do you recall"* are in a fallacy, as every such question would be pinned to a document and asked with a purpose to generate quotation for the transcript. This procedure has very little to do with the witness's recollection of the events.

Another fallacy emerges on re-examination, where allegedly the rule of *"no leading questions"* applies. This rule is farcical in the light of the many fallacies of cross-examination, as I explain below.

Moving on from evidentiary hearing to the tyranny of post-hearing briefs, yet another fallacy makes an appearance, and that fallacy is *"The Great Transcript Dissection"*. The Great Transcript Dissection involves resources substitution, identifying flaws and exaggerating their significance, cherry-picking, *"landing"* good sentences and phrases from the transcript, and many other tactics. The main task of the arbitration community is to correct this.

The model as I have outlined is no longer serving its intended ends. It no longer justifies the gigantic investment of time and money that counsel tend to get away with most of the time. It does not assist the tribunal in resolving disputes; it is based on fallacies and on artificially designed models. This model needs thorough re-consideration.

Flaws in Underlying Theory

Flaws in the contemporary model of witness evidence run far deeper than the practical flaws. Not only the process of witness testimony is incapable of achieving its intended ends, but those ends themselves are misconceived.

As stated, the contemporary model is premised upon adducing and testing witnesses' *"recollection"* and on *"refreshing memory"* of the witnesses, and yet the model has been developed with a total disregard for modern research on the nature and operation of the human memory. And yet, the intricate workings of the human memory are the subject of vast research and literature by psychologists, neurologists, and other experts in the field. They have looked into, and indeed continue to look into, how the human mind stores and retrieves data. This research is applied in many fields, notably in criminal law. This research and its outcome are subjects of detailed guidelines and yet these guidelines are not applied in civil procedure and they are completely unknown in international arbitration.

The essential foundations of our witness evidence model are misconceived, in particular because they disregard the science behind the way the human memory works. This model has very little validity from a technical perspective. In truth, we are all lay people meddling, in effect, with a highly technical area of which we know very little.

In fairness, the study of human memory has made considerable advances in recent decades. A bulk of that research post-dates development of the witness evidence model.

Memory Research

Most contemporary neuroscientists agree that memory is not a single organ like the heart or liver. Equally, memory does not have a single function to record or play-back recollection of events. Rather, memory is an alliance of multiple interacting structures and processes.[33] Overall, memory is a fragile, delicate, fallible and unreliable mechanism. It is inherently a constructive process, prone to elaboration, omission, and distortion.[34]

To understand the concept of memory, it is helpful to break it down into three categories of activity:

1. perception and acquisition of information;
2. storage, encoding, and retention of information; and
3. retrieval of information.

The weaknesses and variables of the human memory are such that events may impact on memory at each of the three stages, namely at the acquisition, retention, and retrieval stages.

I will consider each stage and the weaknesses it presents insofar as relevant in international arbitration field.

Perception and acquisition of information

This depends upon the quality and quantity of the sensory experiences that are recorded. We do not receive information passively like a video recorder. Rather, we are constantly engaged in constructive perception. We take an active part in creating the meaning or significance of the data which we take in. The perception is then in itself highly subjective. The constructive nature of perception is greatest when the actual sensory input is weak, unclear, or ambiguous.

This explains why several people witnessing the same event can all draw attention to different aspects of what they have witnessed. Everyone will see something slightly differently. When people repeatedly experience the same or similar event, it is generally accepted that they form a general mental representation of the event in long-term memory. This mechanism is often referred to as the *"memory schema"*. People have schemas for a very wide range of events from having breakfast to going on holiday. For example, people would have schemas of something frequent and repetitive, such as dining out at a restaurant, attending a board meeting, or attending an international arbitration conference.

A schema is then not only a memory of a single experience or event, but rather, it is a general mental representation derived from many similar experiences. It is essentially a prediction about how a particular event should unfold over time. Schemas are especially useful as they reduce the processing load on us and allow us to conduct other activities, such as talking, thinking, socializing, without having to constantly monitor and attend to the environment.

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[33] A Baddeley, *The essentials of human memory*, Psychology press, 1999, p.1.

[34] F.C. Bartlett, *Remembering: a Study in Experimental and Social Psychology*, Cambridge University Press 1932.

Schematic representations have some specific memories associated with them, but there are usually relatively few of these.

Events in which something unusual occurred, something outside the predictions of the schema, are often highly memorable. In general, however, the schema mechanism functions to prevent a detailed encoding of experience. In schematic events, information is highly redundant, and if an event proceeds fairly in line with the schema, then there is no informational value in retaining a specific memory of that event. It seems that our memories have evolved to avoid storing what would be redundant information. This leads me to concluding that the recollection of schema events is highly unreliable.

Storage, encoding, retention of information

Short-term memory is thought to be able to store about seven items for few seconds only until new incoming information displaces the old. If the information does not then move into long-term store, it is lost.[35] The recollections retrieved from a long-term memory depend on retention and retrieval mechanisms of an individual.

Long term memory is thought to be coded by meaning rather than linked to related information and associations. Consequently what is recorded is not an accurate copy of the actual data but its interpretation, i.e. what we remember is influenced by what we already know. A record of a person's experience of reality is not a record of the reality itself as, for example, a video might be. An experience is a product of a mind interacting with the reality. Thus, an experience and a memory of it always contain elements that originate from the experiencing person's own mind rather than from reality.

Details tend to be lost over time and become generalized, sometimes merging with similar memories. This is why when it comes to retrieval, a further level of processing is required. The longer lasting memory is achieved by attaching meaning and significance to the information that is being retrieved. For example, repeated childhood holidays to the same beach will result in blurred and blended memories, but we can recall the year in which the dog was lost on the beach by attaching other memories to that year, such as the age of the dog, the people present at the incident, the emotions experienced, and so on.

The effects of delay and the Retention Interval

The retention interval is the period of time elapsed between an experience and its recollection.[36] It is one of the most powerful determinants of the durability of human

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[35] *See*, Dr J Cohen, *Errors of Recall and Credibility: Can Omissions and Discrepancies in Successive Statements Reasonably be Said to Undermine Credibility of Testimony?* The medico-legal society 2001.

[36] *See* generally, A. Baddeley, *Human memory: Theory and practice* (2nd rev. ed.), Hove, Sussex: Psychology Press 1997; C.J. Brainerd & V.F. Reyna, *The science of false memory,* New York: Oxford University Press, 2005; M.A. Conway & C.W. Pleydell-Pearce, *The construction of autobiographical memories in the self memory system*, 2002, Psychological review, 107, 261-288; E.F. Loftus, *Planting misinformation in the human mind: A 30-year investigation of the malleability of memory*. Learning & memory, 2005, 12, 361-366; H.L. Roediger, Y. Dudai & S.M. Fitzpatrick (Eds), *Science of memory: concepts, 2007*, New York, Oxford University Press; D.L. Schachter, *The seven sins of memory: How the mind forgets and remembers*, 2001, New York: Houghton Mifflin Co.; D. Strange, S. Clifasefi & M. Gary, *False memories* (pp. 137-170)

memory.[37] In this context, a rehearsal of witness evidence must be one of the main countervailing factors. Each instance of recall offers an opportunity for distortion and error to be assimilated to a memory and, possibly, incorporated into it on a long-term basis.

It is undisputed that memories fade with time. Newer information may be clearer in a subject's mind than older, more hazy information. Loftus, Miller & Burns (1978) demonstrated that if subjects are given misleading information shortly after witnessing an event, both sets of information will fade over time. At the same time, if subjects are given misleading information shortly before being interviewed, the new information will be more salient, compelling and generally fresher in their minds, and as such more likely to be recalled, as compared with original memory. The danger is then that, if faced with discrepancy between sources, subjects are likely to trust new information in preference to hazier recollection.

Retrieval of Information

There exists a large body of research on changes in original memory, or, put in other words, on corruptions of memory by new information or the way in which memories are retrieved. The outcome of that vast body of research demonstrates that changed or contaminated memory is retrieved by the subject as a genuine memory. There is no dishonesty involved in this process. In normal populations, it is easy to induce major memory errors and wholly false memories,[38] to mislead witnesses about the details of staged events and to increase the confidence of others in the accuracy of a falsely reported memory.[39]

Another aspect that is often used to derail witness testimony by playing with the witness's memory is a *"false memory syndrome"*, or the genuine recollection of events that simply never happened at all. There is an incredibly vast body of research on the workings of memories of events that never happened. The starting point of that research is in understanding that retrieval is a process of reassembly of recollections. Critically, memory is not so much stored intact in one part of the brain as reassembled by all these different structures each time we call it to mind. Instead of pulling our memories out of storage when we need them we build them afresh every time.

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in M. Gary & H Hayne (Eds) *Do justice and let the sky fall: Elizabeth Loftus and her contributions to science, law and academic freedom*, 2007, Hillsdale NK: Lawrence Erlbaum Associates.

37 B.B. Murdock Jnr, *Human memory: Theory and data*, Potomac, 1974; Erlbaum, *The issue of retention interval featured centrally in an important case; R v Powell* (Michael John) (2006) EWCA Crim 3, where it was concluded that achieving best evidence in a child witness was compromised by a nine-week delay between the alleged incident of abuse and the police video interview.

38 C.J. Brainerd & V.F. Reyna, *The science of false memory*, 2005, New York: Oxford University Press; M.A. Conway, A.F. Collins, S.E. Gathercole & S.J. Anderson, *Recollections of true and false autobiographical memories*, 1996, Journal of Experimental Psychology: General, 125(1), 69-95; I.E. Hyman, T.H. Husband, Jnr. & F.J. Billings, *False memories of childhood experiences*, 2000, in U. Neisser & I.E. Hyman (Eds), *Memory observed* (2nd ed., pp 335-349), New York: Worth Publishers; E.F. Loftus, *Planting misinformation in the human mind: A 30-year investigation of the malleability of memory*, 2005,. Learning & Memory, 12, 361-366.

39 H.L. Roediger & K.B. McDermott, *Creating false memories: Remembering words not presented in lists*, 1995, Journal of Experimental Psychology: Learning, Memory, and Cognition, 21, 803-814.

William Hirst, one of the co-chairs of the 9/11 Memory Consortium, explained that some memories might strike us as convincing not because they are necessarily accurate but because of how often we call them to mind (reassemble them) and how easy it is to do so.[40] Since we cannot sense our minds reconstructing memories from across multiple regions of our brain, we cannot feel the places in that process where distortions and errors can creep up. For that reason, there exist a conflation of the *"feeling we know"* with actually knowing.[41]

Types of Memory Contamination

The first type of memory contamination is editing recollections by oneself by correcting the perceived information. This is an amalgam of what we see and what we subsequently think. A good example of that is a list of words without the word that would link them in one logical chain.

In 1932, Sir Frederic Charles Bartlett described this process as "*stereotypes*". In his experiment, subjects were shown drawings of men from different branches of armed services in the aftermath of World War I. An interesting phenomenon transpired. Subjects often exhibited changes in memory by recalling very different faces. Largely contaminated by a *"stereotype"* of what the subjects took to be an average soldier, airman, or other military, these stereotypes became interwoven with the original memory. The influence of the stereotypes was so strong that when shown original drawings, many simply refused to believe that these were the same as originally shown.

A technical analysis of memory sources is warranted at this junction. A widespread memory error is that of the misattribution of the source of a memory. This process is premised on the phenomenon of *"reality monitoring"*, or, in other words, on our ability to discriminate between internal or imagined and external, or seen or heard events. Confusion or errors in reality monitoring lead to false memories by, for example, incorporating one's thoughts with the perceptual details of an actual event, thereby confusing imagination with actual perception.[42]

We make records of our internal events such as dreams, thoughts, imaginings, and of our perceptions of external events. Often we are not able to make perfect discriminations between the two. This means that an accurate recall of an actual event may be contaminated by details that originate solely from our thoughts, wishes, or imaginings. Our decision about the origin or source of an event that we "*remember*" are made on the basis of various qualities of that memory, on its perceptual, conceptual, emotional, and contextual details.

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[40] Much research has been done on the effect of repetition on memory. *See*, for example, S.J. Anderson, G. Cohen, and S. Taylor, *Rewriting the past: some factors affecting the variability of personal memories*, 2000, Applied Cognitive Psychology, 14:435-54 (commenting that there is a possible effect of "*demand characteristics*" of the task). When people are asked to repeat information they have already given, they usually assume that the first account is unsatisfactory in some way and may try to rectify this by supplying more and different details. *See* also, B. Tversky, E.J. Marsh, *Biased retellings of events yield biased memories*, 2000, Cognitive Psychology, February 40(1):1-38 (showed that when people retell events they take different perspectives for different audiences and purposes).

[41] K. Schultz, *: Adventures in the Margin of Error*, at p. 75.

[42] M.K. Johnson, *Memory and reality*, 2006, American Psychologist, 61, 760-771.

When a high amount of detail can be recalled, this usually leads to a decision that the event must have happened as remembered. This can influence our judgments not only of the veridicality of our own memories, but also that of the memories of others.[43] We also evaluate the details that we remember in terms of their plausibility. If the details are consistent with other available information then we tend to accept their veracity. If the details are inconsistent, we would reject their veracity. We also cross-check the details against their realism. If the details are bizarre, then we are likely to reject them.[44]

Introduction of further information by others also plays an important role in the way that we retrieve our memories. The leading research on this subject is by Elizabeth Loftus on criminal procedure and eyewitness recollections from the 1970s to date. This research is comparatively recent. It demonstrates how easy it is to introduce non-existent objects into subject's memories.

An interesting part of that research is dedicated to casually mentioning a non-existent object in a conversation or as part of a line of questions. In an experiment designed to research that phenomenon, subjects were shown a film depicting a car accident. Half of the subjects were then asked "*how fast was the white sports car going while travelling along the country road*"? The other half was asked "*how fast was the white sports care going when it passed the barn while travelling along the country road?"* The way the questions were formulated was deliberately misleading: there was no barn on the country road in the film.

One week later, when the research subjects were asked whether they had actually seen a barn, of those earlier misled 17% said that they had seen a barn, of those not so misled 3% said they had seen a barn.

Another example of memory manipulation is where information is introduced less directly. In a 1979 study, a fake theft was staged at a railway station. The supposed victim claimed that her tape recorder had been stolen from her bag. A number of witnesses were asked about what they had seen. One week later the witnesses were interviewed again, and this time they were asked what the tape recorder looked like. More than half of the subjects happily provided a description, even though in reality none of the witnesses had actually seen the tape recorder that was alleged to have been stolen. What was staged in reality was that, although the victim had claimed that her tape recorder had been stolen, the thief had reached into her bag, pretending to remove something, and then pretended to hide an article under his coat.

These examples demonstrate how easy it is to *"implant"* information. Misinformation occurs when people who experience the same event talk to one another, overhear each other talk, or

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[43] L.A. Henkel, N. Franklin & M.K. Johnson, *Cross-modal source-monitoring confusions between perceived and imagined events*, 2000, Journal of Experimental Psychology: learning, memory, and cognition, 26, 321-335.

[44] R. Gordon, N. Franklin & J. Beck, *Wishful thinking and source monitoring*, 2005, Memory and Cognition, 33, 418-429; J.W. Schooler, D. Gerhard E.F. & Loftus, *Qualities of the unreal*, 1986, Journal of Experimental Psychology: Learning, Memory and Cognition, 12. 171-181.

gain access to new information from the media, interviewers, parents, friends or other sources.[45]

A fourth way to manipulate the way we remember is through *Compromise Memories*. This is a recognised phenomenon whereby information which enters via one sense modality, for example, visually, can be altered by information presented via a different modality, for example, auditorily. Unlike the *"interference of memory"* described above (whereby newly introduced information takes the place of the original information), a process of *"unconscious reconciling"* goes on.

In a 1975 study of the compromise memory phenomenon**, s**tudents were shown a three-minute film in which a group of eight noisy demonstrators disrupt a lecture. After viewing the film, the subjects were asked a series of questions. Half were asked *"Was the leader of the 4 demonstrators who entered the classroom a male?"* Another half were asked *"Was the leader of the 12 demonstrators who entered the classroom a male?"* One week later, all students were asked *"How many demonstrators did you see entering the classroom?*"

Those subjects who were earlier asked about 12 demonstrators reported on average that they had seen 8 to 9 people. Those subjects earlier asked about 4 demonstrators reported on average that they had seen 6 to 4 people. This is a perfect example of unconscious reconciling between two sources of information. All students retrieved their recollections as genuine *"memory"*, and there was no bad faith involved on their side. What affected their recollection was the way the questions were formulated.

This conclusion warrants a discussion of the impact of questioning. In a 1974 study by Loftus & Palmer, subjects were shown a video of a car accident. After reviewing the video, the subjects were asked a series of questions, including one question as to the speed of the vehicles at the time of the impact.

The question was, specifically, *"About how fast were the cars going when they hit each other?"* One crucial word was in fact altered in this question for each group of subjects:

- *"About how fast were the cars going when they **smashed** each other?"*
- *"About how fast were the cars going when they **collided** each other?"*
- *"About how fast were the cars going when they **bumped** each other?"*
- *"About how fast were the cars going when they **contacted** each other?"*

Each adjustment of the single word produced a different recollection of speed. For example, those who were asked about the speed of *"contracted" on* average estimated that the speed was 30.8 mph. Those who were asked about the cars that *"smashed"*, averaged the speed of 40.8 mph.

[45] S.J. Ceci & M. Bruck, *Jeopardy in the courtroom: A scientific analysis of children's testimony*, 1995, Washington, DC: American Psychological Association; R.E. Holliday, V.F. Reyna & B.K. Hayes, *Memory processes underlying misinformation effects in child witnesses*, 2002, Developmental Review, 22, 37-77.

Some subjects were then invited back one week later and asked *"Did you see any broken glass"?* In fact, there was no broken glass at the scene. Those subjects previously questioned with the word *"smashed'* were more likely to recall broken glass [16 out of 50] than those who had been questioned with the words *"hit"* [7 out of 50].

Other similar examples include the recollections of those who were asked *"How far away was the car when the boy stepped into the road" v*ersus *"How close was the car when the boy stepped into the road?"*

Neither of these questions is a "*leading question*", and yet each produces a different result.

Another way to affect witnesses' recollection is through the use of *Social Factors*. Those are the memories that are part of the present moment; they are a part of 'now'. These memories are part of the cognitive, emotional, physical, social, cultural, historical, and belief context in which they are recalled**,** with all that entails.

Psychologists measure *"social desirability"* as an indicator of the extent to which subjects attempt to be obliging and give socially acceptable answers.

Another trick is to play with the witnesses' confidence. Many of the witnesses' memories can be strengthened by bolstering their confidence. One of the most efficient confidence-related "*bolstering*" technique is *Repeated Interviewing***.** The rationale underpinning this technique is that the simple act of repeating a statement can strengthen one's belief that the statement is true, bringing to life the "*illusory truth effect*".

The overall conclusion is that integration of sources of information in one *"Memory"* is possible, and it is often used in contemporary witness evidence.

In her 1979 study, Elizabeth Loftus said that "*over time, information from [original and external] sources may be integrated in such a way that we are unable to tell from which source some specific detail is recalled. All we have is one 'memory'*."

Memory contamination is also true of most dramatic, traumatic, or vivid experiences of which we are firmly convinced. This phenomenon is often referred to as "*Flashbulb Memories*".[46]

In her book, Kathryn Schulz gave an example of a dramatic and vivid memory contamination. In that example, on 7 December 1941, a 13 year-old boy named Ulric Neisser was listening to the radio when he learned that the Japanese had just attacked Pearl Harbour.

The experience made a huge impression on the child. For decades to come, he would carry around the memory of a radio announcer interrupting the baseball game he had been listening to with a bulletin about the bombing.

[46] K. Schultz, *Being Wrong: Adventures in the Margin of Error*, at pages 71-72.

In its vividness, intensity and, longevity, Neisser's recollection was typical of how our minds react to unusually shocking events. One may think similarly of JFK's assassination, or the terrorist attacks of 11 September 2001.

Interestingly, 40 years later, something dawned on Neisser: professional baseball is not played in December. By then, as luck would have it, the 13 year old baseball fan had become a psychology professor at Emory University. In mid-1989 he published a groundbreaking study on memory failures.

Hitherto, the going theory was that we are able to remember surprising and traumatic events far more accurately than we can recall more mundane counterparts, the so-called *"flashbulb memories"*, but whilst such memories may remain more vivid, Neisser demonstrated that they may not in fact be true, or, more accurately, that even these types of memories may become contaminated**.**

In his study, Neisser used the 1986 NASA *Challenger* disaster to survey the memories of his students. He surveyed his students about their memories of the event the day after it happened, and then again 3 years later. Less than 7% of the second reports matched the initial report. 50% were wrong in two-thirds of their assertions, while 25% were wrong in every major detail. Subsequent work by other researchers confirmed these findings.

The logical conclusion of these sophisticated studies of how the human memory works is that there must be a guide for arbitrators when assessing credibility of witnesses and their recollections. The fact is that the generally assumed *indicia* of credibility in arbitration is flawed.

Completeness and coherence of witness testimony

When it comes to completeness and coherence of witness testimony, one must bear in mind that memories for experienced events are always incomplete. Memories are time-compressed fragmentary records of experience. Any account of a memory will feature forgotten details and gaps, but this must not be taken as any sort of indicator of accuracy.

Accounts of memories that do not feature forgetting and gaps are highly unusual, and a recall of a single or several highly specific details does not guarantee that a memory is accurate or even that it actually occurred. So the more complete the witness recollections are, the more suspect they are!

There exists a frequent (and proven) misconception. In an experiment that featured a mock trial of a bank robbery,[47] mock jurors were asked to judge the credibility of the evidence of the witnesses. One set of witnesses described events simply and without any details. For example, the (mock) witness might state *"as the robber ran out of the bank I think he turned right and ran off down the street"*. In another version the same witness (to a new mock jury)

[47] B.E. Bell & E.E. Loftus, *Trivial Persuasion in the courtroom: The power of (a few) minor details*, 1989, Journal of Personality and Social Psychology, 56(5), 669-679.

would state "*as the robber, who I remember was wearing a green jumper, ran out of the bank I think he turned right and ran off down the street"*.

The jury rated this second version of events as far more likely to be correct than the first. The effect is known as "*trivial persuasion*" because by inclusion of a trivial or irrelevant but highly specific detail, the perceived credibility of the evidence is markedly raised.[48] Often such descriptions appear to be related to beliefs about memory in both the rememberer and recipient.[49]

Confidence of witnesses

Witness confidence is not by itself a good indicator of memory accuracy. Moreover, witness confidence is malleable. In particular, providing witnesses with feedback confirming their statement leads to inflated witness confidence.[50]

The Way in which Memories are Described

The perceived accuracy of a memory report, particularly when little other evidence is available, will be influenced by the way in which the memory is described. The plausibility of the report is increased by including incidental or mundane detail, such as descriptions of people's emotional reactions, and reports of what people said at the time, although these details may not, in fact, be correct.

In general, the plausibility of a memory report is often judged on the extent to which it fits with expectations about how the world works and how specific kinds of people behave. These are expectations which may, in fact, be unreliable.[51]

II. FURTHER DYNAMIC IN INTERNATIONAL ARBITATION

When dealing with witnesses' recollection in the context of international arbitration, arbitrators and practitioners are bound to struggle with the added complexity of cross-cultural issues.

This creates a greater scope for unfamiliar cultural idiosyncrasies. This poses a question of how equipped are international arbitral tribunals to assess and judges witnesses' credibility in this setting? Factors such as body language, misunderstanding of various figures of speech, and physical appearance and character may affect the arbitrators' judgment, especially when these factors are unrelated to credibility.

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[48] D. Middleton & S.D. Brown, *The social psychology of experience: studies in remembering and forgetting*, 2005, London, Sage.

[49] R.S. Schmechel, T.P. O'Toole, C. Easterly & E.F. Loftus, *Beyond the ken? Testing jurors' understanding of eyewitness reliability evidence*, 2006, Journal of Jurimetrics, 46, 177-214.

[50] D.B. Wright & E.M. Skagerberg, *Post-identification feedback affects real eyewitnesses*, 2007, Psychological Science, 18, 172-178.

[51] D. Middleton & S.D. Brown, *The social psychology of experience: Studies in remembering and forgetting*, 2005, London*:* Sage; D. Middleton & D. Edwards, *Collective remembering*, 1990, London: Sage.

Once a position has been adopted and labelled (perhaps inaccurately) a *"Recollection"*, what are the precise dynamics by which we entrench it *or* stick to it, and how readily will a witness resile from it?

These questions were the subject of a recent research, which has resulted in understanding that there are further dynamics at play in this context. The key point of that research is that "*Being Wrong*" is a state to which we are naturally averse. A recent study (2010) by Kathryn Schulz[52] addresses the relationship that we as a society and culture have cultivated with error.

The key question at the heart of Kathryn's research is:

> "*Being wrong is an inescapable part of being alive. And yet we go through life tacitly assuming (or loudly insisting) that we are right about nearly everything - from our political beliefs to our private memories... But if being wrong is so natural, why are we all so bad at imagining that our beliefs could be mistaken?*"

The research offers a detailed account of how we treat our own perceived "*Margin of Accuracy*" and *"Margin of Error"*. When data has been categorised within a "*Margin of Accuracy*", many forces will ensure it stays there**.** At this juncture I feel that it is appropriate to cite here a fridge magnet that recently appeared at my house, which said that "*There are two types of people in every marriage: one person who is always right, and another who is called the Husband*".

The two key forces (of many) that drive our error-related perceptions are an aversion to error and an indiscriminate enjoyment of being right.

The aversion to error is plagued by subconscious negative associations with *"error"*, such as that an error is seen as a *"bad"* thing, that it is dangerous, humiliating, distasteful. This set of associations has been summed up by an Italian cognitive scientist Massimo Piattelli-Palmarini, who noted that we err because of, among other things:

> *"inattention, distraction, lack of interest, poor preparation, genuine stupidity, timidity, bragadocio, emotional imbalance... ideological, racial, social or chauvinistic prejudices, as well as aggressive or prevaricatory instincts."*

In addition to that, of course, there exists a particular pressure on a witness not to admit error or inconsistency in his or her testimony, and not to depart from his or her written statement. Further, the way cultures are built, while there is a handful of established options to help one cope with certain errors, no mechanism exists for coping with a simple error:

> *"By contrast, if you commit an error - [such as] a minor one, such as realizing halfway through an argument that you were mistaken ... you will not find any obvious, ready-to-hand resources to help you deal with it."*

[52] K Schultz, *Being Wrong: Adventures in the Margin of Error*, Portobello Books 2010.

As noted, the second force that drives our error-related perceptions is that indiscriminate enjoyment of being right, matched by an almost equally indiscriminate feeling that we are right:

> *"Occasionally, this feeling spills into the foreground, as when we argue or evangelize, make predictions or place bets. Most often, though, it is just psychological backdrop. A whole lot of us go through life assuming that we are basically right, basically all the time, about basically everything ... [including memories]".*

We go through life experiencing "*a serene faith in our own rightness*", while by contrast, we positively excel at acknowledging other people's errors.

Schulz indicated in her study that this, equally, creates another source of pressure to deny error:

> *"Witness, for instance, the difficulty with which even the well-mannered among us stifle the urge to say 'I **told you** so'. The brilliance of this phrase (or odiousness, depending on whether you get to say it or must endure hearing it) derives from its admirably compact way of making the point that not only was I right, I was also right about being right. In the instant of uttering it, I become right squared, maybe even right factorial, logarithmically right - at any rate, really, extremely right, and really, extremely delighted about it."*

III. DISTINGUISHING *"KNOWLEDGE"* FROM *"BELIEF'*

The key point to retain from the multitude of memory-related research is that while memories may well be false and inaccurate, they come to *"feel right"*. They produce a strong feeling of *"knowing"*. None of us capture our memories in perfect, strobe-like detail, but almost all of us believe in them with blinding conviction.

This conviction is most pronounced with respect to flashbulb memories, but it isn't limited to them. Even with comparatively trivial matters, we believe in our *"recollections"* with sincerity, and defend them with tenacity.

A feeling of *"rightness"* and *"knowing"* is a psychological state. As Schulz summarises in her research, "We feel that we are right because we *feel* that we are right: we take our own certainty as an indicator of accuracy".[53]

In light of this, it becomes critical then to distinguish *"knowledge"* from *"belief"*. For several millennia, philosophers have tried to identify criteria by which *"beliefs"* might be elevated into a loftier category of *"knowledge"*. Philosophy aside, for most of us, *"belief"* transcends into *"knowledge"* by virtue of a *"feeling of knowing"*. As William James wrote:

[53] *Ibid*, p. 74.

> *"Of some things we feel that we are certain; we know, and we know that we do know. There is something that gives a click inside of us, a bell that strikes twelve, when the hands of our mental clock have swept the dial and meet over the meridian hour."*

The feeling of knowing something is incredibly convincing and inordinately satisfying - whether we are right or not – but it is not a good way to gauge the accuracy of our knowledge.

IV. HOW DO WE CALIBRATE "KNOWLEDGE"?

What test do we apply to discern believe from knowledge? Schulz notes in her research that

> *"The barometer we use to determine whether we do or don't know something is deeply, unfixably, flawed. By contrast, our capacity to ignore the fact that we don't know things works extremely well."* [54]

With that interferes to a peculiar extent a phenomenon known as the "*Rumsfeld effect*", or the "*known unknowns*". The Rumsfeld effect takes origins in the answer that Donald Rumsfeld gave at an interview to a question about the lack of evidence linking the government of Iraq with the supply of weapons of mass destruction to terrorist groups. In his response speech, Rumsfeld stated:

> *"Reports that say that something hasn't happened are always interesting to me, because as we know, there are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns – the ones we don't know we don't know. And if one looks throughout the history of our country and other free countries, it is the latter category that tend to be the difficult ones."*[55]

The *"known knowns"* and the *"known unknowns"* are very difficult to calibrate in one's search for the ultimate truth in witness testimony.

One's personal evidence threshold becomes important against that backdrop. The question is exactly what evidential threshold, criteria, burden does one apply to discern knowledge from belief, and exactly how deal with evidential gaps.

One answer to that is inductive reasoning. This is a process of guessing based on past experience, *i.e.* we do not gather the maximum possible evidence in order to reach a conclusion. In fact, we reach the maximum possible conclusion based on the barest minimum of evidence.

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[54] *Ibid*, page 70

[55] Defense.gov News Transcript: DoD News Briefing – Secretary Rumsfeld and Gen. Myers, United States Department of Defense (defense.gov).

To conclude my brief foray into the intricacies of how human memories work, one can only state that all this serves to render the category of *"knowledge"* unreliable and better analysed as a category of *"belief"*. In light of these findings, a more accurate framework in fact may be witness *"Belief"*, rather than witness *"Recollections"*. This warrants a brief discourse into what is belief.

Nature of "Belief"

The definition of belief is rather complex, but for present purposes it is enough to suggest that it is completely analytically distinct as a model from *"recollections"*. This alone surely gives rise to a different procedural model, or to at least different means of testing and assessing witness evidence.

The content of belief is a medley of implicit assumptions and explicit convictions. They reflect the models of the world. Although we are highly adept at making models of the world, we are distinctly less adept at realizing that we have made them. Our beliefs often seem to us not so much constructed as reflected, as if our minds were simply mirrors in which the truth of the world passively appeared. Psychologists refer to this conviction as *"naive realism"* – an automatic tendency rather than an intentional philosophical position.

What is the entrenchment that separates knowing something to be true from believing something to be true? The dynamics that entrench our beliefs lie deep in the emotional investment in our beliefs. So deep they are that we are unable to recognize them as anything but the inviolable truth. The very word *"believe"* comes from an Old English verb meaning *"to hold dear"*.

Another phenomenon that interferes with the process of finding the truth is *"confirmation bias"*. We tend to give more weight to evidence that confirms our beliefs than to evidence that challenges them.

The foray into the multiple flaws in the theory underlying witness testimony in international arbitration ends here. There is, of course, abundant room for further research and for accommodating the various ideas that this foray might aspire in the arbitration community as to how to adjust the witness evidence system to make it a worthy exercise in international arbitration.

In the meantime, pending the fertile suggestions that I might receive in my search of a new model of witness evidence, I conclude that the importance of witness testimony in arbitration is not to be overstated. There is a proper sphere for witness evidence in arbitration, and my research and criticisms should not be taken as an argument for abolishing the entire system.

Witness testimony and evidence is very useful in practice where the context of a particular fact is not apparent from the documents on the record, or where the documents require explaining, or where there are no documents available at all.

But equally, when witness evidence is tested against the current technical state of knowledge on memory, the standard witness evidence model that has evolved is of very little worth at all, and yet it is being used at great length and gigantic expense.

In particular, the entire fallacy *of "refreshing the witness' memory"* is nothing more than a nonsense; an extremely dangerous activity, especially when in hands of amateurs. As long as we understand that witness testimony concerns *"recollections"*, there is no basis to conduct each of the stages of the current witness evidence model that I set out earlier, including the drafting of witness statements, witness preparation, and the conventional system of witness examination.

The latest research in this field has led to the emergence of the Guidelines on Handling Witness Evidence in other areas, such as Criminal law and Asylum procedures. And yet, regrettably, this new model is unknown to date in international arbitration.

V. CONCLUSION

Perhaps it is time to change the terminology and the focus of witness evidence in international arbitration. If the *"grand shift"* is made from the current model to a *"Belief Model"*, we will have removed the fiction of *"memory"* from the concept of witness evidence. It is time to radically re-think the witness evidence procedure and to redefine the role and proper ambit of witness evidence:

- stop pretending that we are working off the actual *"recollections"* of witnesses when we are not;
- start treating the *"testing credibility"* processes as a more technical exercise using guidelines implemented elsewhere in other areas of law;
- acknowledge that witnesses assisting the tribunal's finding of *"probabilities"* on reviewing evidence is very different from memory *per se*. This is critical when evaluating competing accounts and testimony clashes; and
- change the vocabulary and focus, as well as the nature of the exercise, from *"educated beliefs"* to the *"actual recollections"*.

In light of the above changes in the concept of witness evidence, the procedure itself must be altered:

- the purpose and focus of hearings should be redefined to move away from the farce of witness cross-examination to a different exercise. That will involve reassessing the actual content of *"right"* to a hearing;
- the handling of witnesses must be redefined as well, to move away from *"assisted recollections"* and *"witness coaching"*;
- emphasis should be placed on moving away from cross-examination;

- the rules about *"leading questions"* must be redefined in light of the various complexities associated with the actual workings of human memory;

- The tribunal's burden regarding assessing the witness's *"credibility"* must be viewed in light of the understanding of that *"credibility"* is affected by a number of factors that have nothing to do with the genuine credibility of the witness; and

- more submissions from witnesses must be allowed, and the form grip of lawyers on witnesses must be loosened.

The final aspect of adjusting the current system of witness evidence is the training of arbitrators. This should involve changing the arbitrators' psychology, in particular with respect to witness preparation procedures, by finally exposing the farce and stopping the *"fiction"*. Other aspects of arbitrator training should include educating the arbitrators in cross-cultural issues.

These three-fold radical alterations to the witness evidence model will no doubt lead to substantial savings in time and money, and eventually to the increase of credibility of international arbitration as a system.

In seeking the *"truth"*, we should *"recall"* Benjamin Franklin's words on the merits *of "error"*:

> *"Perhaps the history of the errors of mankind, all things considered, is more valuable and interesting than that of their discoveries. Truth is uniform and narrow; it constantly exists and does not seem to require so much active energy, as a passive aptitude of soul in order to encounter it. But error is endlessly diversified; it has no reality, but is the pure and simple creation of the mind that invents it. In this field, the soul has room enough to expand herself, to display all her boundless faculties, and all her beautiful and interesting extravagancies and absurdities."*[56]

But perhaps the last word should go to Lord Griffiths, who, after years serving on the appellate Bench (without any live testimony) in the English Court of Appeal and then House of Lords, on his return to international arbitration commented on how refreshing it was to sit as an international arbitrator, and watch a witness spin a really good *"Whopper"*.

[56] Report of Dr Benjamin Franklin, and Other Commissioners, Charged by the King of France, with the Examination of the Animal Magnetism, as Now Practiced in Paris (1784).