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Who is telling the truth? Psychology, common sense and the law

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Psychology, common sense and the law

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When I was counsel assisting the Royal Commission into British Nuclear Tests in Australia I tendered evidence from a great many servicemen, all of them men, who played a role in the operation. One of the reasons for the Commission was the fear of those involved that their exposure to radiation had given them cancer or they were likely to get cancer at some future time.

I tendered the written statements of hundreds of witnesses and if they wished gave them the opportunity to give oral evidence. One steamy afternoon in Brisbane with a packed courtroom including a media contingent comprising journalists from Australia and the United Kingdom I called a gentleman, whom I had never met. As he made his way through the crowd to the stand I could see he looked a little odd. He was wearing an Hawaiian shirt, shorts and very dark glasses – which he did not remove. When he got to the witness stand he placed a plastic bag, with a number of rocks in it, onto the bench. I never found out what the rocks were although I can guess.

My routine was to ask the witness' name and address and then say "what do you want to tell the Commission." This gentleman in a soft and stumbling voice proceeded to tell me that since 1958 he had been very worried about the remains of some atomic bombs which he had been ordered to bury in the desert at Maralinga. He was most concerned that Aboriginal people may have stumbled across the remains. His delivery was emotional and at times confused. He certainly did not look me or Justice Jim McClelland in the eye.

He told us that he was a truck driver and had been ordered by his superior to load up his truck with "atom bombs" and drive out into the desert to a location, the coordinates for which he was given. There he was to await the arrival of a bulldozer which would dig a hole for him into which he was to offload the bombs. He was ordered to set the bombs alight, and was given matches for the task. When they had burned he was told to bury the remains.

He said that all went to plan and he found the spot and then "miraculously" the bulldozer arrived. They dug the hole but try as he might he could not get the bombs to ignite. (Just as well I was thinking – as I am sure was everyone else in the room).

What was to be done? Well he went back into base, found his commander and told him that he had done as directed but the bombs would not burn. "Oh" says the commander "did you take any water?" "No" says the witness. (And, thinks me, if you want a fire why take water?) By this stage you can imagine my concern – apart from his bizarre presentation and air of unreliability the story was totally implausible. Had my staff set me up, I wondered?

The commander then told the soldier to go around to the back of the shed, get some beer bottles, fill them with water and go back into the desert and throw them at the bombs which should "blow up." He could then bury the remains.

To a rising murmur bordering on laughter he recounted that he had done as directed and to his amazement as the beer bottles broke onto the bombs there was a great conflagration and he was able to complete his task.

I could not get to the end of the story quick enough. My agony was compounded by the evening edition of the Courier Mail which carried only a headline on its front page “I threw bottles at the A bomb.” I could not believe anyone had taken it seriously.

Fortunately, the next day’s events provided some diversion – Diamond Jim McClelland attacked Margaret Thatcher and made his point by reference to Henry VIII’s matrimonial difficulties bringing forth the wonderful cartoon showing Queen Victoria sweeping into court to berate him. The bottle thrower story had died – I hoped to be forgotten.

To my amazement six months later the research staff came to tell me that they had found records which confirmed the soldier’s story. He had been posted to Woomera and not Maralinga. At Woomera they had been carrying out a major testing program on the casing design for atomic and later hydrogen bombs. There were many designs which had been mocked up in magnesium. In fact he had been sent to destroy casings which were being discarded and which the British wanted to keep secret from the Russians. The “beer bottles”? The casings were made of magnesium which will react with water and ignite. He had been telling the truth.

There are two levels of truth. I refer to them as real truth and perceived truth. Real truth is what actually happened. Perceived truth is different. It informs most of our understanding of the world. It comes to us from our own observations together with the accounts of others – either personal exchange or from newspapers, television, books or through the various other mediums which are now available. In our acquiring of perceived truth we apply various filters and checks by which we seek to determine the reliability of the information we are receiving. If not from our own observations, does it come from someone who actually saw the events or merely someone who was told about them by someone else? Is the person who is giving us their analysis of the problem - be it political, scientific or perhaps a commercial matter - an expert in that field? If we know the person, are they prone to exaggerate? Or have their accounts proved reliable in the past?

I am sure that most people in this room have had the experience of being in cases in court which have been reported on by the press. How often is that report a superficial, inaccurate or misleading account of events? You know the real truth but the reader is only able to perceive the truth through the words of the journalist. Try as we might to convince ourselves not to accept uncritically the accuracy of stories we read in the newspapers we nevertheless rely on them for our understanding of the world. Television can create greater problems. Not only can words mislead, but the power of the visual image can be such that the perception gained by the viewer can be wholly distorted. Although we may remain sceptical, devoid of any other source of information, but finding it necessary to create an appreciation of the event, the perceived truth becomes our reality.

And of course sometimes we are deliberately misled. Before the British set off the first nuclear explosion on the Monte Bello Islands off Western Australia – three press releases were prepared. If the test was successful the announcement was straight forward – a glorious success. However, if it failed or partially failed an excuse had to be found. That excuse and the cables publishing it had been drafted long before Lord Penney gave the command to explode the bomb - and it would not have mattered if it reflected the real truth. The weather could be a terrible problem in the Indian Ocean!

The problem of reconciling real and perceived truth in our ordinary lives can be significant and may give rise to other problems. Sorting out the information we are receiving about family problems, career, investment and personal choices requires us to consciously or subconsciously analyse information, some of which we understand directly and some of which we receive from other people. It is a complex task and we, of course, do not always come up with the correct answers.

Throughout history individuals have developed methods by which they have been able to make sense of the complex of information which they receive. Conventional approaches to the resolution of uncertainties or conflicts are adopted. Thought patterns which we describe as rational or normal are identified and problems solved in accordance with those patterns. Some are reactions to simple physical phenomenon - if it is cold you put a jacket on. Others are more complex – if you want a dog to behave in a particular manner you train it with a regime of deprivation and reward. Many people adopt a similar approach with adults and children.

What we are talking about are the fundamentals of human behaviour which, of course, are the domain of the psychologist.

Law and psychology can be uneasy partners. The law has traditionally devised its own rules of human behaviour and created its own norms for interpreting that behaviour. Informed by little more than the

appellate court's understanding and often classified under the rubric of "common sense" judges are required to direct jurors in a particular manner on a whole range of subjects, with varying degrees of impact on the outcome of the trial – some more easily identifiable than others.

Directions have been developed to assist juries to reach conclusions relying upon circumstantial evidence, directions are given about credibility and reliability of evidence, the functioning of memory is explained and warnings are crafted and alleged dangers are exposed. The *Longman* direction is a good example. The directions required by s 116 of the *Evidence Act* in relation to identification evidence are another. Hearsay evidence is generally rejected but business records are admitted because of commonly accepted understandings of the way people in a business function. We have developed rules about lies and fashioned requirements about tendency evidence and coincidence evidence based on the law's expectation of the way innocent and guilty people will normally react.

Common sense is a concept familiar to us all but difficult to define. No doubt at one point the idea that the world was flat with a distant traveller likely to fall off the edge was a matter of common sense. The proposition that a liar will shift in their seat, turn red in the face and fail to look the questioner in the eye would, I venture to suggest, still be accepted by many as a matter of common sense. No doubt each of you can bring to mind similar "truisms" by which you test the reliability of the evidence you receive.

One of the earliest ways of assessing the credibility of a witness was to assemble a group of suspects before a crowd, describe the crime alleged, and require them to eat large amounts of boiled rice. The theory was that the liar would have the driest mouth and so would be least able to eat the rice. [1] Another means of getting to the truth was derived from the belief that a dead person would bleed again if touched by the hand of their murderer. A refusal to touch the body was seen as tantamount to a confession. [2] The more conventional method of requiring witness' to testify orally before the fact-finder dates back at least to Roman times. [3]

Of course, reliance has for centuries been placed on the demeanour of a witness when giving their evidence. By careful observation of a witness an experienced person is assumed to be able to assess whether they are lying. The confrontation involved in many a cross examination is accepted and the assumption is made that the demeanour of the person under challenge will assist in revealing whether they are a liar or are recounting the truth. However the psychologists tell us that internal contradictions and the apparently unsatisfactory nature of their evidence may be because of the stress of the witness box where they are called to account by a hostile advocate whose obligation is to their client's instructions which may be, and by definition in many cases must be, at odds with the real truth. Those who are caught up in the litigation process - parties, witnesses or experts - express resentment directed not only at the advocates but at the court itself that the truth is commonly a casualty in the litigation process.

In *Rama Furniture v QBE Insurance* (unreported, NSWCA, 20 June 1986), the trial judge confessed that he was "deeply suspicious of my ability to determine the truthfulness of a witness from his demeanour in the witness box." This suspicion may be well founded. Ekman has concluded that "most liars can fool most people most of the time." [4] Demeanour will only reveal incompetent liars. [5] Alarmingly he also concluded that "although most people cannot do better than chance in detecting falsehoods, most people confidently believe they can do so." [6] This might even be exacerbated in a courtroom, which often has a "sterilising" effect on witnesses. [7] Notwithstanding that it has been shown that there is no universal cue that enables us to tell when a person is lying (i.e. a "Pinocchio response"), [8] the confidence of a witness is often treated as though it is a conclusive measure of the witness' honesty. That this may be fallacious has been recognised since Charles Dickens' time. He once observed:

> "I have known a vast quantity of nonsense talked about bad men not looking you in the face. Don't trust the conventional idea. Dishonesty will stare honesty out of countenance, any day of the week, if there is anything to be got by it." [9]

Modern research indicates, as you would expect, that confident or powerful patterns of speech are more readily employed by the most powerful group within society – professional white men – regardless of the accuracy of their testimony. By contrast, "it is said that Aboriginal speech habits involve silences, indirect answers and negative answers which might wrongly be understood as evasion, confusion or guilt, and that Aboriginal culture promotes gratuitous concurrence." [10] Moreover, even when others (such as women) are able to emulate a confident and powerful style of communication, they are regarded as less credible because they are not conforming to their stereotypes. [11] Furthermore, even though "confidence can account for up to 50% of the variance in

jurors' decisions to believe eyewitnesses," [12] studies indicate that – far from there being a strong correlation between confidence and accuracy – "over 90% of the variance in eyewitness confidence is determined by factors other than eyewitness accuracy." [13] A well-known influence on the apparent confidence of witnesses is the "Othello effect." That is, "like Shakespeare's tragic hero, lie detectors who disbelieve truthful witnesses may make them appear anxious and fearful – and hence appear as if they are being deceptive." [14] Similarly, age can affect witness confidence. It has been shown that young children are significantly more likely to be overconfident about the accuracy of their positive identifications than older people. [15] On the other side of the coin, "people who are being deceptive know which behaviours result in judgments of deception," [16] and hence make a conscious effort not to give off those signals. Research has shown that in the act of deception, supposed deception cues such as fidgeting and postural shifts actually *decrease* rather than increase. [17]

In 1979 Wells, Lindsay and Ferguson conducted an experiment involving the staged theft of a calculator. [18] Witnesses to the theft were asked to identify the culprit from an array of six photographs. Of those witnesses, 21% made no identification, 58% made an accurate identification and 20% made false identifications. Those witnesses who made an identification (whether accurate or inaccurate) were cross-examined according to a script which involved either leading or non-leading questions. This cross-examination was recorded on video. The video was shown to 201 mock jurors, who were asked to decide whether or not the witness had made an accurate identification. Accurate witnesses were believed by 84% of jurors when asked leading questions, and by 76% of jurors when asked non-leading questions. This is consistent with other studies that show that eyewitness testimony is readily believed by jurors (indeed, one study shows that even when jurors are told *in advance* that the eyewitness is not reliable, 68% of mock jurors would nevertheless arrive at a guilty verdict after hearing such evidence. In comparison, only 18% of jurors who did not hear the eyewitness testimony would have returned a guilty verdict). [19]

The truly disturbing figure, however, relates to mock jurors' assessment of inaccurate witnesses. Such witnesses were believed by 73% of jurors when asked leading questions, and by 86% of jurors when asked non-leading questions. The results of the study clearly showed that juror belief was unrelated to witness accuracy. Instead it was determined largely by witness confidence, which itself was not related to accuracy.

Lawyers and judges reacted negatively to this study. In 1989 the experiment was replicated, with the only material difference being that the eyewitnesses were examined, cross-examined and re-examined by real lawyers in a real courtroom, in accordance with the lawyers' own questioning style (i.e. no scripts were used). [20] Thirty-two lawyers participated. Sixteen had at least 5 years experience, and the remaining 16 were senior law students with some legal aid experience. The results showed that even though the jurors noticed the difference in experience, it made no difference to their assessment of witness accuracy. Like the first study, the mock jurors believed witnesses who were confident, regardless of accuracy. Indeed, slightly more of the inaccurate witnesses were believed (70%) than were accurate witnesses (68%). This led the authors to conclude that

> "Even experienced lawyers, free to question the witness as they chose, were unable to lead mock jurors to believe accurate eyewitnesses more than inaccurate eyewitnesses." [21]

This raises questions about the traditional view of the effectiveness of cross-examination. Cross-examination has been described as the "greatest legal engine ever invented for the discovery of truth." [22] However, recently others have asked "whether it is not the honest but weak or timid witness, rather than the rogue, who most often goes down under the fire of a cross-examination." [23] Cross-examination has other purposes. These include an accused's right to confront his accuser. Whether demeanour under cross-examination helps to find the truth may be doubted. Tom Hughes QC said "some contemporary judges – maybe an increasing number – do not put a high value on cross-examination." [24] Perhaps said with regret – Hughes is a great cross-examiner - the observation is undoubtedly correct.

Even when cross-examination is effective at revealing the truth, it is worthless if the fact-finder misreads the evidence. A US study published earlier this year noted that "the results of over 25 years of research on this topic show that lay knowledge of eyewitness behaviour is not only limited in scope but also highly inaccurate." [25] The study involved an analysis of the answers to 30 questions that related directly to eyewitness research. The questions were answered by eyewitness experts, judges, law enforcement officers and jurors, and the results were compared between groups. Jurors only agreed with experts on 13% of issues, indicating a deep misunderstanding of how a witness' evidence

ought to be assessed. Judges performed markedly better, but overall their results were still very poor: they agreed with the experts on 40% of issues (this was also the degree of concurrence between experts and law enforcement officers). [26] Moreover, it has been found that "judges and lawyers do not do better than lay people in detecting deception – while they perform better than if they had simply guessed, they do not perform much better than that guess." [27] These studies suggest that credit may not necessarily be given where credit is due.

The significance of demeanour has been debated in the High Court in recent years. The latest word is found in *CSR Ltd v Della Maddalena* (2006) 224 ALR 1 although no clear authority is discernible. Kirby J with whom Gleeson CJ agreed pointed out that *Fox v Percy* (2003) 214 CLR 118 marked an important change in the approach which appellate courts could take to findings at trial which were founded on the demeanour of witnesses. The departure was from the view expressed in *Fox v Percy* by McHugh J that a trial judge had the great advantage of assessing a witness's credit from "a look, a gesture, a tone or emphasis, a hesitation ... or unusual alacrity in giving evidence." Callinan and Heydon JJ described the concept as the "subtle influence of demeanour" and were not prepared to entirely discard it. It would seem that demeanour remains as a means of assessing the credibility of a witness. But does it mean any more than I did not feel as though he was telling the truth?

As Trovillo points out, as far back as 900BC (and no doubt even earlier) people already had preconceived notions of how a liar behaves. [28] Today we entertain similar stereotypes. We assume, for instance, that liars will not look us in the eye. But are we correct in our assumptions? Accepting that demeanour still has a role to play in modern fact-finding, what do the psychologists tell us about how demeanour should or should not be used to assess a witness' credibility? Demeanour evidence is used to support or refute what a witness actually says. This is because in certain situations a witness' actions are perceived to speak louder than their words. When demeanour is used in this way the trier of fact is making two separate assumptions, each of which is questionable. The first is that a witness will exhibit tell-tale signs which will indicate whether or not they are telling the truth. The second assumption is that the trier of fact knows how to correctly interpret any signals that a witness does send.

Some of the things that the psychologists tell us *do not* indicate dishonesty can be surprising. These include shifting posture, head movements, smiling, gesturing or making foot and leg movements. [29] Nor does grooming, massaging, rubbing, holding, pinching, or scratching indicate dishonesty. [30] Blumenthal says that the face is the easiest "channel" for a liar to control, while voice is the hardest. [31] This is unfortunate because the face is the major channel that observers use to assess credibility. [32] Consequently, "there is some evidence that the observation of demeanor *diminishes* rather than enhances the accuracy of credibility judgments" (emphasis added). [33] Studies indicate that facial and body cues can distract fact-finders from more reliable vocal cues. [34] Body movements are a better indicator of credibility than the face, but only when the observer has some familiarity with the witness which allows them to assess whether the witness' non-verbal behaviour is normal. [35] Since voice is the hardest channel to control, things like a high tone of voice and speech hesitations are more reliable indicators of deception than most other cues. [36] Even so, it should be pointed out that "people who apply the same decision rule to all potential liars tend to be poor detectors of deceit." [37]

There is evidence from the psychologists that people are more likely to believe the testimony of an attractive or likeable witness than an unattractive or unsavoury witness. [38] This occurs when people engage in what is referred to as "peripheral route processing" rather than "central route processing." Central route processing is a way of reasoning that involves the cognitive engagement of the person doing the reasoning. When a person reasons in this way, they tend to make decisions based on the *content* of the evidence rather than on who delivers it. People are more likely to engage in central route processing when they have a secure grasp of the issues in the case. Peripheral route processing is a way of reasoning that relies on *non-content* cues. People tend to engage in this type of reasoning when they do not understand the issues. Since they find it hard to evaluate the evidence on its merits, they may reason using heuristics – for example, they might think "that person is an expert, therefore whatever they say on this topic must be correct." Similarly, since "there is a generalised bias in favour of believing that more attractive people are honest," [39] people can and often do reason accordingly. To my mind this is a particular danger with expert evidence. The articulate expert with less content may be more readily accepted than the expert who proves less "attractive" in the combative environment of the adversarial trial.

A person's race or culture might have a similar affect on the way that their demeanour is used to assess their credibility. Credibility is assessed on how it is thought an honest witness *should* look and sound. [40] The difficulties this raises are immediately apparent. They are further exacerbated by the fact that different cultures may interpret certain cues differently. [41] Alarmingly, research indicates that even when people do not believe in the racial stereotypes, they cannot help being influenced by them.

[42]

Coombe v Bessell (unreported, TasSC, 31 May 1994, Zeeman J) is an example of the danger of making credibility assessments based largely on a witness' demeanour. That case was an appeal from the decision of a Magistrate. The Magistrate had "frankly" admitted that demeanour had been "of principal importance in determining credit in this case." When giving judgment, his Worship had said that the applicant's

> "demeanour was quite noticeably different when describing matters that were more in the nature of being common ground – rather than in contention and then he appeared, I think, to be describing them from true recollection. He was a very uneasy witness – a tremor noticeable in his voice – throughout the giving of much of his evidence – as one example of why I thought he was an uneasy witness and that characteristic was particularly notable during the parts of his evidence that tended to be controversial. He dwelt, at times, in his evidence, on how things might have been if Mrs Coombe had been reasonable – and that betrayed, I think, a very defensive aspect – to his evidence."

On appeal, it was revealed that the applicant had a speech impediment that accounted for his odd demeanour. This had not been disclosed to the Magistrate or to the applicant's solicitor because the applicant did not think it was relevant. The Magistrate's decision was overturned.

Cases like this have led some judges to conclude that a witness' demeanour should only be relied upon "as a last resort and with the utmost caution." [43] That is not to say that demeanour will never be useful or relevant. Justice Giles has suggested extrajudicially that while demeanour might not be particularly helpful when assessing witness *honesty,* it might be useful in assessing *reliability*. For instance, hesitation might not indicate a lie, but it might indicate that a witness is not 100% certain about the evidence they are giving – even if they honestly believe that it is truthful. [44] Others maintain that demeanour *is* a useful gauge of witness honesty, but only when the witness' demeanour changes during their testimony. That is, demeanour is not a good guide to honesty when a witness is (for example) underconfident per se (a witness might be timid for many reasons besides dishonesty, such as natural shyness, intimidation by the courtroom and counsel, fear of an accused who is present, and so on), but it *is* a relevant consideration when an otherwise confident witness is underconfident in relation to a particular aspect of their testimony. As one American judge said:

> "Changes in demeanor, while the witness is on the stand, mean more to me than consistent behaviour. If a confident witness loses his poise when confronted with what appears to be a document he had forgotten about and cannot explain, that change in demeanor will impress me. But even then, the change in demeanor rarely stands alone. It is usually accompanied by evasiveness, defensiveness, excessive rationalization, all of which appear on the face of the record and give an independent basis for resolving credibility." [45]

The correctness of this view has been confirmed by research. [46] When demeanour is used to assess credibility, it may be important to avoid blanket findings – just because the tribunal considers a witness to have been untruthful in relation to one issue, it does not necessarily follow that *all* of that witness' evidence should be discounted. [47] This has been described as the "Halo Effect," whereby "one perceived 'good' or 'bad' quality in a person will tend to colour all judgments pertaining to him." [48] Juries are commonly reminded to avoid this potential problem.

It is plain that our so-called "common sense" understandings about the way people behave are not always correct. Psychologists suggest that a lot of the things that we should be looking for when assessing credit are counter-intuitive, and that often the things we *do* look for do not mean what we think they do. This is also true of our understanding of the way people remember events. Some of our "common sense" assumptions about a witness' memory may not be accurate. This has been exposed in studies that deal with repressed memories. The research indicates that the difference between the real truth and a person's understanding of the truth may be greater than we would expect.

For five extra credit points in Dr Elizabeth Loftus' Cognitive Psychology class at the University of Washington, an undergraduate named James Coan devised an experiment. James successfully implanted a false memory in the mind of his 14 year old brother Chris. The memory was a mildly traumatic one. James had implanted the memory by providing Chris with a book that contained 4 stories that purported to have been events that had happened to Chris in the past (3 of them were true

and one of them was false). James asked Chris to write something about each story every day for six days. In the false story, the five year old Chris gets lost in a shopping mall. [49] Over the six days, Chris remembered quite a lot about the fictional story, even "remembering" details that had not been suggested. Subsequently James interviewed his brother on tape. Chris confidently described the false event at some length. James then told his brother that he had never in fact been lost in a shopping mall. Chris' reaction has been widely reproduced in the psychological literature:

> "What came out of him was this: 'REALLY? I thought I remembered being lost and looking for you guys. I do remember that. And then crying. And Mom coming up and saying, "Where were you? Don't you…don't you ever do that again"'…He [Chris] told me that the study didn't bother him and when I asked him what he thought of it, he said, 'I just think it's kinda trippy, 'cause, y'know, I remember it happening."[50]

Five years later, when Chris was 19, James asked him if the memory still seemed real. He said that it did. [51]

At the time of the experiment James had no idea of the minefield that he had just stepped into. He had shown that false memories of a mildly traumatic event – not just the neutral or positive memories that could be ethically implanted in a laboratory – could be induced, and that the person affected could not tell the difference between their false recollection and their true memories. This did not mean that all repressed memories of trauma were false, but it did show that at least some of them *could* be. James went on to do his honours thesis on this topic.

From the time of James' experiment, and to this very day, a debate has been taking place as to whether repressed memories are reliable, or whether they are falsely induced by therapists and/or other environmental factors, such as books, TV, victims' groups and so on. Those who believe in the accuracy of repressed memories refer to the phenomena as repressed memory syndrome (RMS), while their opponents refer to it as false memory syndrome (FMS). James' study did not create this divide, nor did it say anything that directly proved or disproved the views of either side. It merely showed that false memories of trauma were possible. (A more light-hearted but no less illuminating example of false traumatic memories is the 3.7 million United States citizens who in 1996 believed that they had been "abducted by aliens in flying saucers, examined, and then returned to earth." [52] Harvard Professor Dr Richard McNally has said that "How victims remember trauma is the most divisive issue facing psychology today." [53] If the psychologists find difficulty in this area, it is little wonder that courts have struggled to come to terms with evidence of repressed memories: see eg *Lackovic v Insurance Commission of Western Australia* [2006] WASCA 38; *R v Bartlett* [1996] 2 VR 687; *E* (1997) 96 A Crim R 489 (NSWCCA).

Writing in 2005 McNally discussed human memory of trauma in the following terms:

> "What has clinical research taught us about memory for trauma? Events that trigger overwhelming terror are memorable, unless they occur in the first year or two of life or the victim suffers brain damage. The notion that the mind protects itself by repressing or dissociating memories of trauma, rendering them inaccessible to awareness, is a piece of psychiatric folklore devoid of convincing empirical support. To be sure, people may deliberately try not to think about disturbing experiences, and sometimes they succeed, especially if the experiences were unpleasant but not catastrophic. They may get on with their lives, concentrating on other matters and not dwelling on their early adverse experiences. When later reminded of these experiences, they may say they had 'forgotten' them, meaning that they had not thought about them for many years. But failing to think about something is not the same as being unable to remember it. Not having something come to mind for a period of time is not the same as having amnesia for the experience.

…

> Finally, some experiences are reclassified as traumatic many years after they occur. Some molested children are too young to understand sexual abuse for what it is, and only years later realise what they experienced. But their failure to think about it and classify it as abuse cannot be attributed to repression or dissociation of their memories if the emotional realisation that they were abused occurs in adulthood." [54]

There is another situation (unrelated to repressed memories) where it might be said that "what you don't know can hurt you." Research has shown that when a person witnesses a traumatic event, they focus on the central features of the event rather than peripheral details. [55] For instance, "when a weapon is used to commit a crime, eyewitness identification is less accurate because the witness tends to focus on the weapon." [56] Similarly, "the literature on information processing suggests that attention to a criminal's face during an event may preclude processing of other less central details and that good memory for trivial or peripheral factors may imply less, rather than more, encoding of the criminal's facial features." [57] The failure to understand this phenomenon may have unfortunate results in a trial where judges or jurors may mistakenly associate memory for peripheral detail with greater witness accuracy. [58] One study showed that

> "Subject-jurors behaved as though the correlation between memory for the thief's characteristics and memory for peripheral trivia is positive. Subject-jurors were less willing to believe that an eyewitness had correctly identified the thief if the eyewitness had poor memory for peripheral trivia. This effect was not mediated by the confidence of the witness…[I]t appears that the effects herein obtained are not due to the mediating role of eyewitness confidence but, instead, occur in spite of the eyewitness' unshakeable confidence." [59]

There is also a problem with colour. Apparently, colour is not remembered as readily as form – for instance, dreams are seldom remembered in colour [60] - and there is research that indicates that eyewitness memory for colour is often very poor. [61] A witness to a traumatic event may process what they see in black and white rather than in colour, the theory being that at times of great stress colour vision is dispensed with so that the mind can devote more of its resources to dealing with the actual trauma. Our perception of colour is controlled more by our brains than by the actual hardware of our eyes. [62]

The "common sense" of many people suggests that a lack of memory for peripheral details and a possible lack of memory for colour are signs that a witness is unreliable. The reality may be the opposite. It may be that what a person does not know can in fact hurt them.

One of the greatest difficulties with eyewitness evidence is that fact-finders are reluctant to believe in the fallibility of memory. We rely on our memories on a day-to-day basis and the thought that other peoples' memories might not be accurate sits uneasily with the faith we have in our own recollections. [63] Of course the reality is that our memories are unstable and malleable. We are all aware of instances where our memories have proved inaccurate, despite the fact that we were sure that they were correct. Even without external influences, memory will fade over time. This has been accepted by psychologists "ever since Hermann Ebinghaus published his classic work on remembering in 1885." [64] In addition to this inevitable deterioration, memories may also be altered by post-event factors.

From a judicial perspective, it is particularly important to recognise the susceptibility of memory to suggestion. It is not necessarily true that what is learnt in the cradle lasts till the grave. We forget much more than we remember. What we *do* remember may persist, but it will often change just as much as we do. Only rarely, if ever, will a person go to the grave with a clear and unaltered recollection of what happened yesterday, let alone of something that happened years before in their youth.

Human memory is not like a video recorder. In its "Guidelines Relating to Recovered Memories," the Australian Psychological Society has said that:

> "Memory is a constructive and reconstructive process. What is remembered about an event is shaped by how that event was experienced, by conditions prevailing during attempts to remember, and by events occurring between the experience and the attempted remembering. Memories can be altered, deleted and created by events that occur during and after the time of encoding, during the period of storage, and during any attempts at retrieval." [65]

Not only can external factors affect our memories, but our own internal processes tend to shape our recall. In conformity with our expectations we tend to fill gaps in our memories with what we assume would be true. [66] Additionally, we tend to recall events in a logical order even if they did not occur that

way. [67] It is also "common for a witness' thoughts to bend in a direction that would be self-advantageous." [68] It is easier to recall the specifics of a distinctive event, and the more times we experience a certain type of event the harder it becomes to distinguish among these events. [69] As McHugh J noted in *Longman v The Queen* (1989) 168 CLR 79 at 107-108:

> "The fallibility of human recollection and the effect of imagination, emotion, prejudice and suggestion on the capacity to 'remember' is well documented. The longer the period between an 'event' and its recall, the greater the margin for error. Interference with a person's ability to 'remember' may also arise from talking or reading about or experiencing other events of a similar nature or from the person's own thinking or recalling. Recollection of events which occurred in childhood is particularly susceptible to error and is also subject to the possibility that it may not even be genuine."

Whether this justifies the warning that it is "dangerous to convict" has been questioned. *Longman* itself involved alleged offences that had occurred 20 to 25 years before the trial. The complainant was a young child at the time and the offences had allegedly occurred in circumstances where she had been awoken from sleep. Recently, in *JJB v R* [2006] NSWCCA 126 at [4]-[7], Spigelman CJ noted that the "legal tradition that treated children as unreliable witnesses" goes against "a substantial body of psychological research indicating that children, even young children, give reliable evidence." The real danger in relation to a child's evidence may not be the child's memory per se, but the fact that a child is more susceptible to suggestion than an adult.

The most troubling aspect of memory – be it a child's memory or an adult's - may be its vulnerability to suggestion. This is powerfully illustrated by a study carried out in the 1930s. While a class was in progress, a man dressed in overalls entered the room, made some comments and tinkered with a radiator for a minute or two. Two weeks later he came back with 5 men of similar appearance, and the students were asked to identify him. Another group of students who had not in fact seen the man but who were told that they had were asked to identify him. Twenty-nine percent of those students identified one of the six men. [70] In another study a group of people were shown a video of two cars colliding. Some members of the group were asked how fast the cars were going when they "smashed" into each other. Others were asked the same question but softer verbs such as "bumped" or "contacted" were used. Those who had been given the word "smashed" estimated a higher speed, and were more likely to answer "yes" to the question "Did you see any broken glass" (there was in fact no broken glass).

There can be little doubt that the common law model, which endorses the adversarial method for the resolution of disputes, has proved effective. Many lawyers including judges would reject any suggestion that it needs to change to meet contemporary demands. Whether this is so is not for discussion today. Furthermore the jury system is both a symbolic and practical manifestation of the faith the community places in a process in which lay people are required to decide who is telling the truth. Juries are directed to employ their "common sense" and experience of the world in coming to their decision. The same approach must be applied by judges who are involved in the fact finding process.

Both the instructions given to the jury and the fact finding by a judge will be informed by the collective experience which the law accepts as appropriate when performing the task. That there are many pitfalls will be obvious. Given that the decision can only reflect the decision-maker's perception of the truth, whether it reflects the real truth may never be known. In one sense it does not matter, the decision will be made. However, that decision must be made with a recognition that, although "common sense" is a helpful guide, commonly held perceptions may not always accord with the scientific research.

I doubt whether many psychologists realise the extent to which the law operates upon assumptions which they may question or disagree with. The need for a constant dialogue between the lawyer and the psychologist is apparent. Our objective must be wherever possible to ensure that the perceived truth is the real truth.

END NOTES

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20. R. C. L. Lindsay, G. L. Wells and F. J. O'Connor, "Mock-Juror Belief of Accurate and Inaccurate Eyewitnesses: A Replication and Extension" (1989) 13 *Law and Human Behavior* 333.
21. Ibid, at 338.
22. J. H. Wigmore, *Evidence in Trials at Common Law*, 1974, § 1367; quoted in: J. A. Blumenthal, "A Wipe of the Hands, A Lick of the Lips: The Validity of Demeanor Evidence in Assessing Witness Credibility" (1993) 72 *Nebraska Law Review* 1157 at 1187, footnote 191.
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