

Australian Academy of Science/Australian Academy of Law

The reception, quality, and evaluation of scientific evidence in Australian Courts

Remarks by Tim Game SC

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I agree we need to find a better way in which expert evidence can be presented and reliably so. And in circumstances where there is a genuine attempt to get to the bottom of the scientific issues. It does involve both the lawyers and the experts giving up the ability to have the last word on the subject. It does involve an act of goodwill by lawyers, courts, and also experts.

Now I turn to a number of disparate points.

I begin with Justice Weinberg's paper 'Juries, Judges, and Junk Science — Expert Evidence on Trial'. I wanted to begin with a comment about Justice Weinberg's second proposition concerning judges not performing a gatekeeper role. Professor Edmond in his article 'Regulating Forensic Science and Medicine Evidence at Trial: It's Time for a Wall, a Gate and Some Gatekeeping' (2020) 94 *Australian Law Journal* 427, made criticisms in relation, particularly, to the High Court decisions of *IMM v The Queen* (2016) 257 CLR 300 and *Honeysett v The Queen* (2014) 253 CLR 122. Now I am not meaning to question the proposition that in fact judges do not adequately perform a gatekeeper role. And I think at trial there is a serious problem. But I do not think that there is a problem with s 79 of the *Evidence Act 1995* itself. I think that properly construed, there is a reliability factor that sits inside it. And I do not think that *IMM* is a bar to that conclusion. I say this because *IMM* is a case about tendency evidence, and it is about an exclusionary rule (s 97) and then an exception to the exclusionary rule that sits inside the rule based on assessing probative value.

And in my view there is unfortunate language used in the decision about "taking evidence at its highest". I think that is an unhelpful expression. Because it is not saying that the evidence has the significance that is attributed to it by the moving party. A more helpful metaphor is that of a leaky bucket, one can keep pouring water into the bucket but the evidence can only rise so high. To use the famous "dark and stormy night" example in *IMM*, it is not saying that a reliable identification is a correct identification. It is assuming that what the witness says is truly what they think and that it will be accepted for that, but no more. I would say that in a matter of drawing inferences, the correct way to approach it is that an inference cannot stand any higher than the lowest inference it can bear. And that is a critical point that needs to be recognised, and that in fact was recognised in *IMM* when the Court said, look, if you have got an identification in a dark and foggy night with

poor opportunity to see, it is never going to get any better as an identification. The bucket has a hole quite low to the bottom.

The example in *IMM* causes consternation because those matters which limit the capacity of the evidence to establish the fact in issue are also those traditionally associated with reliability, the light and conditions and so forth. A better example of drawing inferences and one completely removed from considerations of reliability occurs in *Joffe v R* [2012] NSWCCA 277. The fact that one person spoke to the other person and then the other person went and bought shares, that does not mean the first person said anything in particular to the other person, except something to encourage them to buy shares. That is so even if there was more than one such similar event. If one were to look at the capacity of the evidence “at its highest” it could not ever establish the content of the calls, no matter what is contended by the prosecution. The strength of the inference depends on the timing of the calls and surrounding context. So you do not get to the information contained within the call. You require other pieces of information before you do so. And I think really that is the lesson of *IMM*.

Section 79 is a different subject altogether. Section 79 is an exception to a rule, which is a common law rule which dates probably to the 17th-century, the time of Coke, and the common law excluded opinions, because that would seem to be the matter for the court to decide, and a series of exceptions for particular things were created and rules emerged and s 79 is the exception based on specialised knowledge, which is very similar to the common law rule.

But s 79 in itself is not concerned with the question of relevance or probative value and that is where the idea of the capacity of evidence to contribute to the proof or disproof of the existence of a fact in issue is introduced. Section 79 is about whether or not you can bring along some person who is going to draw an inference.

And an inference is, in the simplest sense, based on their observations about two or three or four different facts. But the inference itself is a fact. The holding of the opinion is a fact, but the opinion itself is an inference. But the only way in which you can get to that opinion having any substance is if the opinion is reliable. You will not be able to make the connection if you do not have that. So when you have a statute such as s 79 that says that the exception is based on where the opinion is based on “specialised knowledge” which is “based on the person's training study or experience” and then secondly, the opinion is “wholly or substantially based on that knowledge,” then to my mind, you cannot get away from it from a requirement of reliability.

I think that the High Court accepted that in *Honeysett* at [23] and the reference to *Daubert* in that paragraph and in the context of knowledge was quite deliberate. I confess that I argued *Honeysett*. But what the Court said was that the science, the so-called science, which was anatomy, was not really in play at all, it was just this evidence about body-profiling based on looking at a person in a white suit and saying its now the same person, because the person had a big head or the torso was like this. It did not even get through s 76, which is the exclusionary rule. Probably it was not even relevant, which is s 55. It can be borne in mind here that the word “rationally” in s 55 has work to do and may assume particular importance in cases where scientific inference is being asserted. So to my mind, although it may not have been drawn out in express terms, *Honeysett* actually decided the case at an earlier point, which was that the evidence did not even rank as purporting to be specialised knowledge.

So I think that there is a reliability requirement sitting inside s 79. I think though it is important to understand that scientific propositions about verifiability cannot be applied across the board using scientific language, such as principles of falsification, for example. And the reason why I put it in those broadest terms is because s 79 is there for a whole broad range of circumstances. It could be an historian, it could be a sociologist, it could be a computer expert who has never even been to school. The witness can actually be giving evidence of facts as well as opinions about them in the case, for example, the sociologists. So the breadth of s 79 means that you cannot have a one size fits all, but it is not going to work as a process by which an inference is drawn through an opinion, if the opinion is not verifiable. In some fields, say anthropology, the science may not be verifiable so the test must be whether or not it is reliable.

So that is where I would say I would not be so pessimistic as Justice Weinberg about what the language of the provision actually means and what *IMM* and *Honeysett*, actually stand for.

Now the second thing I wanted to say from my own experience over a fairly long period of time, doing trials, appeals, trying to get convictions overturned, trying to defend convictions, is about getting at the science. Understanding the science is not the overwhelming problem from a lawyer’s perspective. It is getting at it. It is being able to get at what is actually being said, and when you can get at it and appreciate it, then more often than not, the propositions are blindingly simple. But there are two really big problems for which us lawyers and scientists are responsible, which is that we create forensic difficulties.

Particularly in respect of actually undercutting scientific evidence, there are forensic difficulties, which require very high levels of skill to actually get at it. And it requires access and money and the ability to speak to people who have no interest in the outcome. Often enough though, the

opinions that one is getting it are not even really scientific opinions. They are a kind of folksy things like spear-throwing the deceased off the South Head at Watson's Bay in the *Woods* trial (see *R v Wood* [2008] NSWSC 1273 and *Wood v R* (2012) 84 NSWLR 581; [2012] NSWCCA 21) or the Brides in the Bath demonstration in the *Keogh* case (*R v Keogh* [2014] SASCFC 20), which went to the High Court two times and the Court of Criminal Appeal three times. Take the case, for example, of *Wood*. The actual science involved velocity acceleration and gravitational force. I am no physicist, but it did not take me terribly long to understand the formulas that are used to calculate those propositions. It is not very complicated, even for a person as woefully unscientific as myself.

Or consider evidence from neuropathologists or pathologists explaining about red neurons causing death and how that works, in a case called *Clarke v The State of Western Australia* [2018] WASCA 14. When it came down to it, what you are looking at is actually quite straightforward, but lawyers are not thinking about it as scientists. We do not understand the three dimensions of the brain. We are not physicists working out problems. We do not have that kind of an understanding, but the understanding we need can be accessed. We have to have a way of getting at it.

Since 1988, when I was one of the junior counsel in the Aboriginal Deaths in Custody Royal Commission, whenever I have had a really difficult scientific problem in the forensic services or medicine area, I have gone to the Victorian Institute of Forensic Medicine. Professor Cordner and his colleagues have provided indifferent opinion, and I say indifferent is the critical thing. I mean uninterested in the outcome, and uninterested in the connection between the opinion and conviction. A demonstration about throwing a person in a spear throw is, in context, an opinion very close to and interested in conviction; so too is a Brides in the Bath demonstration about drowning the victim in a bath. You have to have independence. As barristers, we pride ourselves on our freedom. But the critical thing for us, really comes from our independence. But for experts, we really do need to have a line of communication with experts who really are experts who work collaboratively and are quite disinterested as to the outcome of their cases.

Now, my own experience is also, and this is where I come to this thing about giving up responsibility. As lawyers, we really cannot stand giving up responsibility for what we do with a witness. "I am going to be able to pin that witness to the wall and show that what that witness said is false." But if we have witnesses of goodwill, and that is critical, then if questions are properly framed for them and they can work together, then joint reports can resolve cases and they do. And they have. But you have to have faith in the judge to assist in framing and making an order in

respect of the questions that are asked. And you have to have parties who are willing to give up, to a significant degree, responsibility, because an answer is going to come back that you may not like.

And I think that as lawyers it is critical that we are prepared to do that. And I have had occasions where Professor Cordner has provided assistance in reports and his Institute has done that. So that sort of, that form of, communication before a case has even happened sometimes is critical. I think it is terribly unfortunate that so often we find ourselves in retrospective exercises, for example, the retrospective exercise that Professor Vinuesa has referred to. But I also think that conclaves are important. If you have proper experts, and you have them together, and you do have an ability to ask them what they have to say about what each other has to say, then the good science, in my experience comes forward so long as people who have diffident manners, unlike myself, can be heard. That to me is critical too. You cannot cut people out by their manner and the way in which they present things. I agree with Professor Edmond that the time has come to question the value of demeanour and traditional ideas like an expert witness being “shaken” in cross-examination. I have noticed the High Court’s recent references to the evolving scientific understanding of the accuracy of demeanour assessment and the subjective process involved. But I also think so we have to be prepared to give up, to a significant degree, the freedom that is involved in having all of the witnesses separately examined, cross-examined and so forth. It is an act of good faith by those who would ask, well, why would I trust that witness? And it is an act of humility for lawyers to accept that scientists are often better able to draw out good and reliable evidence than we are.