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CSI Bond

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Well at least the title got your attention.

In fact, such has been the success of the “CSI” TV series, and its several offshoots, that court officials in the United States are already referring to “the CSI effect”, which is that juries brought up on a diet of Gil Grissom, Horatio and his Miami team, and their colleagues in New York have come to expect every homicide case to be decided for them by attractive scientific experts who have all the legal answers.

The sad reality is that forensic science still falls far short of doing that (as indeed it should), and the primary purpose of this article is to show TV shows like “CSI” into their true perspective, as purely “entertainment”. After all, you would not expect Homer Simpson to turn up at your local High School Awards Night – even if you do live in a place called “Springfield” – because you know he is fictional; so why expect real-life forensic science to approximate to the role it plays on your TV screen?

In a former life, I was employed in a job in Scotland which carried the almost unpronounceable title of “Procurator Fiscal”. The job was actually concerned with public prosecution, but in one very important aspect it was different from the job done by prosecutors here in Australia. Like the DA’s Office staff in the United States, we had to go out to the scenes of violent crimes, and co-ordinate the police inquiry.

As a result, I got to see my fair share of messy corpses and bizarre crime scenes, and you very rapidly cease to wonder at the levels of depravity to which we humans can sink, or the amount of physical violence which one person can inflict on another. Yes, of course you get cynical, and most of the time you get very depressed as well. It affects all your relationships with other people, and after a while you develop defence mechanisms.

Perhaps the worst part of that is the sick sense of humour which you develop in order to cope with it all, and this is frequently hinted at in the various CSI episodes which invade our TV screens every week. If the CSI operatives you see – either on the screen or in real life – seem to forget from time to time that they are dealing with what used to be a human being, it’s because they need to forget that in order to do their job effectively. And as science marches on, that job becomes increasingly more important.

The jury system is the best system we have at present

The criminal trial process has always been a hazardous “hit and miss” affair, however well we try to organise it, although it’s a distinct improvement on, for example, “Trial by Ordeal”, one alternative which enjoyed considerable popularity during the early Middle Ages, in which an accused criminal would be placed in a potentially lethal situation – like being thrown into a river with their hands and feet tied together – and the theory was that God would save the innocent. Or was it that the Devil would preserve the

guilty? Whichever way it worked, if God happened to be out at the time, the result could be very unfortunate for the accused.

And so we dreamed up the slightly more scientific process of taking 12 people chosen at random from the local community, who know nothing about the case, or about the law, and asking them to make a “life or death” decision on the fate of one of their own.

As anyone who’s ever served on a jury will tell you, it can be a more terrifying process than visiting the dentist. Quite apart from the responsibility which you carry for making a moral judgment on a fellow human being, you have to absorb hours and hours of conflicting evidence, at the end of which you have to listen to a lengthy – and frequently boring – law lecture from the trial judge, before you’re sent into a stuffy room with 11 other people you don’t know from a bar of soap, and asked to make sense of it all in the shortest possible time.

Can you be surprised to learn that the average jury member will gratefully grab at any lifeline which is thrown to them? And what better than some persuasive scientific-type person with a string of degree qualifications that sounds like a burst alphabet, who seems to know far more about the case than you ever will, and, what is even better, can give you a short cut to the answer you’ve been asked to come up with?

And who are you to argue with evidence such as “The deceased was obviously manually asphyxiated, a fact which I deduce from the compound fracture of the hyoid bone?” or “The angle of trajectory clearly indicates that the assailant was considerably taller than the victim?”. Phrases like “refractive index”, “blood splatter pattern” and “post-mortem lividity” are thrown around the courtroom like confetti at a wedding, and the jury will sit there pretending to take it all in and understand it, wishing that they’d paid more attention when Horatio and his CSI Miami team had been fossicking through a crime scene in last week’s episode. Or that they hadn’t switched to the Channel 7 footie when it all got a bit messy.

My point is that your average jury member will take as gospel anything they’re told by a so-called “expert”, whether he or she is a pathologist, a serologist, a forensic orthodontist, or any other type of “ist” you could name. They will take it gratefully, and believe it instinctively, and they have absolutely no idea whether they’re being “conned” or not. It’s the job of the lawyers to make sure that in fact they’re not being conned.

OK, I hear you asking yourselves, so what do lawyers know about all the fields of specialism which now exist in the crime-scene world? The short answer in most cases is “next to nothing”. The job of the lawyers is not to be better experts than the experts, but to make sure that the experts are kept in check, and are not allowed to bamboozle or hoodwink the jury.

As a result, the increasing possibility that criminal cases – and a limited number of civil cases – can be “solved” by means of improved – and ever-improving – scientific knowledge and application has led to a whole new area of legal study involving what is called “expert evidence”, which is what the rest of this article is all about.

The role of the expert witness

The expert witness is only required in order that certain

facts may be assessed and understood in their specialist (usually scientific) context. The facts themselves must still be established by evidence (usually that of the expert himself), may be challenged, and may even be rejected, as indeed may the opinion itself, if the court is not satisfied with it for some reason.

As science advances, and it is increasingly possible to establish the truth or otherwise of certain allegations by technical processes, so the courts have more need of experts to explain to them what they have done, why, and what conclusions they draw from their investigations.

It is also correspondingly important to ensure that our traditional jury process is not thereby simply replaced by a system of trial by experts. As Lord President Cooper put it, in the Scottish case of *Davie v Magistrates of Edinburgh* 1953 S.C.34, "*The parties have invoked the decision of a judicial tribunal, and not an oracular pronouncement by an expert*".

Step One in the process of adducing expert evidence is therefore one of recognising precisely when expert evidence is required. As a matter of routine, it is now admitted in scientific and technical areas such as the analytical identification of illegal drugs, the mechanical state of a motor vehicle and the percentage of alcohol in the bloodstream of an alleged drunk driver. Fingerprint and voice identification are also now both accepted as being areas in which the courts may safely accept expert opinion.

The guiding principle is that before expert evidence may be given on a particular issue, it must be one in respect of which there is an "accepted body of knowledge", or an established "field of expertise". If, on the other hand, it is something which forms part of the general experience of life, then it is referred to as "common knowledge", and expert evidence will not be permitted.

There can be some fine points of distinction as to whether or not something is within the common knowledge of a jury, or requires expert evidence. For example, the effect of a skid on a wet road is something familiar to every motorist, but the special dynamics of an articulated truck on a tight bend on a wet road became the subject of expert evidence (from a truck driver) in *Weal v Bottom* (1966) 40 ALJR 436.

Aspects of human behaviour can be particularly difficult to categorise. In *R v Turner* [1975] QB 834, for example, the English Court of Appeal refused to rule that expert evidence should have been allowed of the psychological effect on a young man of being told by his girlfriend that she had been unfaithful to him, because emotional attachments are part of human experience. But in *Murphy v R* (1989) 63 ALJR 422, the HCA held that expert evidence from a psychologist "would have assisted the jury" in deciding whether certain words and sentence structures used during a record of interview by an adult with a literacy age of 10 were really his own.

Somewhere between these two cases fell the recent Queensland case of *R v S* [2001] QCA 501, in which the Queensland Court of Appeal ("QCA") ruled that it had been inappropriate for a trial judge, in a case involving the alleged sexual abuse by a man of two of his step-daughters, to allow a Family Services officer to comment on the behaviour of sexually abused children towards their abusers. This was because (a) such matters did not form the subject matter of "a recognised body of learning", and (b) it

was not beyond the knowledge and human experience of the jury.

In *R v Runjanjic and Kontinnen* (1991) 53 A Crim R 362, the SA Supreme Court admitted expert evidence on the newly-emerging topic of the "battered wife syndrome", and was followed by the QCA in *Babsek* [1998] QCA 166. This area of psychology had first been recognised by the Canadian Supreme Court in the 1990 case of *Lavallee*, and this illustrates another aspect of "expert" evidence, namely that it is international in nature, and once a particular specialism has received recognition in one country, it tends to receive it in others.

We are currently witnessing an attempt both in Canada and here in Australia to have "criminal profiling" recognised as a specialist science with its own defined "area of expertise", so that experts can give evidence in future criminal cases that the accused fits the "profile" of persons who commit certain types of offence. You may recall hearing my colleague at Bond University, Professor Paul Wilson, giving evidence in Denpasar on behalf of Schapelle Corby, to the effect that she did not fit the typical profile of a "drug mule", so clearly this type of expert evidence can work for the defence as easily as for the prosecution.

In those areas in which it is held that there is an "established field of expertise" which is beyond the everyday experience of the court, the role of the expert witness is to assist the court in assessing the facts placed before it. It is not his or her function to make the court's decision for it, and the court should always be left with the final decision.

The best summary of the role of expert witnesses is still that of the Scottish Lord President Cooper, in the *Davie* case quoted above, who said of them that:

"Their role is to furnish the judge or jury with the necessary scientific criteria for testing the accuracy of their conclusions, so as to enable the judge or jury to form their own independent judgment by the application of these criteria to the facts proved in evidence."

Establishing the expertise

Before a person may give "expert opinion" evidence, it goes without saying that he or she must first be proved to be an expert in the area in which they are about to testify. Those experts who are regularly in the courts (notable Government scientists, doctors and pathologists) soon become recognised as such, but even so, if only for the benefit of the jury, the party calling the expert will begin his examination in chief by establishing his qualifications and experience.

Care must also be taken to ensure that the expert stays within his field of expertise. In *R v Darrington and McGauley* [1980] VR 353, for example, it was held that while a hospital psychiatrist was able to give an opinion on the general effect of LSD on human mental processes, he might not go on and give an opinion as to whether LSD and alcohol combined could deprive a person of the necessary intent to kill.

The basis of the opinion

Expert witnesses frequently give their opinions on the basis of "assumed facts" given to them by the party commissioning them. The easiest way to neutralise expert opinion is therefore to disprove, or cast doubt on, the facts upon

which that opinion was based. In *The Queen v Ryan* [2002] VSCA 176, for example, the Victorian Court of Appeal quashed a rape conviction based entirely on DNA samples allegedly taken from the accused which, when matched with DNA material allegedly taken from the crime scene, made it 1.5 billion times more likely that the accused was the perpetrator. Although this sounds very convincing, the problem was that the expert who gave the DNA matching evidence was not responsible for collecting either sample, but based his opinion entirely on computer-generated print-outs. In the absence of any other evidence relating to the collecting of the samples (which had since been destroyed), and their connection with the accused, the conviction had to be overturned.

In cases such as this, the “assumed facts” on which the expert bases their opinion have to be established by separate evidence. Sometimes, of course, the expert will have first-hand knowledge of these facts (e.g. a pathologist or vehicle accident examiner who actually carried out the examination, and based his opinion on it).

Expert witnesses may also rely to a considerable extent on textbooks, previously published scientific journals etc in order to show the basis for their opinions. Such published works are of course technically hearsay, but they are normally allowed to be quoted, by way of an informal exception to the Hearsay Rule.

The position was succinctly explained by the Victorian Supreme Court in *Borowski v Quayle* [1966] VR 382, at p. 385, as follows:

“No one professional man can know from personal observation more than a minute fraction of the data which he must every day treat as working truths. Any other view would be to insist on impossible standards.”

But so far as concerns the facts of the case in hand, and their applicability to the general principle being expounded by the expert, the Hearsay Rule is still rigidly applied.

The ultimate issue

It is still generally regarded as the basic rule that an expert witness must not seek to decide the “ultimate issue” in the matter before the court (e.g. whether the accused is guilty, or whether the Defendant was negligent), either directly or by giving evidence which indirectly has that effect.

However, the rule is becoming increasingly difficult to maintain in an age of rapid technological development, and few would deny, for example, that the effect of expert DNA evidence is to virtually convict or acquit the accused.

However, whenever it can be avoided, the expert should not be allowed to effectively usurp the function of the court, particularly not when the ultimate issue is a concept of law (such as “intention” or “negligence”), on which the judge must direct either a jury or himself.

Even that can sometimes be near-impossible, particularly in negligence cases in which the expert is allowed to testify as to whether or not the Defendant’s actions fell below the generally accepted standard of the industry or profession in question.

Nor is this a modern problem arising solely out of scientific advance. A good example of an early case in which the accused was effectively convicted by an expert was *R v Mason* (1911) 7 Cr App R 67, in which M was charged with

the stabbing murder of his fiancée. He admitted being present when she died, but claimed that she committed suicide. The police surgeon gave evidence of the position of the body, and the nature and position of the stab wounds. A Home Office pathologist sitting in court and hearing the evidence was then allowed to testify that in his opinion it would have been impossible for the deceased to have inflicted the fatal stab wounds upon herself. He went so far as to state that in his opinion she had been murdered, and this was upheld on appeal. Given that the accused had already committed himself to the admission that he had been the only other person present when the girl died, his options became somewhat limited after the pathologist’s evidence, and it was hardly surprising that he was found guilty.

The challenge of the future

A lot of people, while enjoying programmes such as “CSI”, have expressed concern that matter such as the guilt of an accused person can be determined simply by advanced scientific techniques. But these same people are quite prepared to enjoy the benefits of other scientific advances, as they drive their cars, dial up the Internet, and fly to their holiday destinations. Most of the young people reading this article, for example, probably cannot remember a time when there wasn’t an Internet, and would seriously notice the gap in their lives if it were taken away. My generation can just remember a time without television or jet aircraft, but we wouldn’t want to go back to it.

So why shouldn’t we embrace scientific advance, if it makes the process of solving crime much easier? Criminals themselves are equally aware of scientific advances, and have to vary their modus operandi accordingly. We are all familiar with the cliché of the burglar wearing gloves in order not to leave fingerprints at the crime scene, but we now have rapists using condoms, and Internet scammers utilising a network of websites and bogus ISPs in order to cover their tracks. We have made life more difficult for the career criminal, and we have the potential to make the criminal trial process far more certain and precise than it has ever been.

But every scientific breakthrough comes at a price. The development of the television required the use of censors, to ensure that what we watch is morally good for us, and we are currently trying to come to grips with the flood of pornography and other undesirable material freely available on the Internet. By the same process, we must ensure that the introduction of more science into our courtrooms is not at the expense of justice.

Those of you who are hoping to go on and study Law will, in a few short years, graduate into a world undreamed of by famous criminal counsel of the past, heroes such as Sir Norman Birkett, Sir Patrick Hastings, Sir Edward Marshall-Hall and Rufus Isaacs QC. Even Geoffrey Robertson, in our generation, has had to rise to the challenge of DNA profiling and voice-recognition technology. It is a matter of guesswork what you will come to regard as perfectly standard in the years to come.

All of which is fine, provided that we never lose sight of what the criminal trial process is designed to achieve. It is, always has been, and always will be, a process whereby ordinary people are called upon to adjudge the guilt of one of their own beyond reasonable doubt. The fact that science

can now help to shrink the size of that reasonable doubt is only a secondary consideration, and we should not get side-tracked in our enthusiasm to employ what we have seen in fictional form on our TV screens.

There will probably never be something approaching scientific certainty in our criminal trial process. It has always been possible for an accused person to explain to a jury's satisfaction how their fingerprints came to be at a crime scene, and hopefully this will prove to be true also for their DNA. Just because a nice man in a lab coat proves conclusively that glass of the same refractive index as that from the scene of the road accident was located in the smashed headlamp glass of the accused's car does not prove that the accused was driving that car at the time. The mere fact that a housewife at the extreme edge of her sanity finally cracked and battered to death the man who had made her life Hell for 32 years does not mean that she should automatically be convicted of his murder.

Science – in Law, as in every other walk of life – should be our servant, and not our master.