

DNA admissibility and appeals

By Patrick Mugliston

The use of DNA¹ evidence in our criminal justice system was initially seen as a cure-all for the difficulties inherent in criminal investigations, effectively ensuring that the guilty will be convicted and that the innocent will go free. Senator Amanda Vanstone said, 'it will enable police to clear suspects quickly', and went on to describe it as being a 'real springtime for the innocent, and winter for the guilty'.² However, DNA evidence has raised many unforeseen issues, and brought attention to deficiencies in our criminal justice system.

The two most significant difficulties with DNA evidence are:

1. making such evidence intelligible to juries, particularly where there is a conflict in the testimony of expert witnesses; and
2. when DNA testing establishes the innocence of a convicted person, the process leading to that person's 'acquittal' is a long, drawn-out and expensive one.

USING DNA TO OVERTURN WRONGFUL CONVICTIONS

The ability of DNA evidence to overturn wrongful convictions depends heavily on the capacity of the criminal justice system to recognise and correct errors. This capacity depends on its capacity to deal with mistakes of fact as well as procedural irregularities in criminal trials.³

In America, post-conviction DNA testing has been used in hundreds of appeals to overturn wrongful verdicts. Some of these cases have involved the exoneration of people on death row. In Australia, the cases have not been quite so dramatic, with the exception of *Button's* case in 2001.⁴

In *Button's* case, the Queensland Court of Appeal ordered

the DNA testing of the appellant, Frank Button, after his appeal had been lodged against a conviction for the rape of a 13-year-old girl. The test results showed that Button could not have committed the crime, and his conviction for the rape was consequently quashed. The court unanimously accepted the results of the DNA test as establishing that someone other than the appellant must have committed the offence. The prosecutor's explanation to the court as to why the test was not conducted prior to the trial – that it would not have been of 'material assistance' in identifying the appellant as the perpetrator of the crime – was not accepted by the court, since DNA testing can be used to exclude suspects under investigation.

Considerations such as cost certainly have a significant bearing on the availability of DNA evidence at trials, but are unacceptable when they result in the innocent being wrongfully convicted. *Button's* case is authority for the proposition that our justice system requires that police investigating a crime in such circumstances perform DNA tests to exclude a "possible offender". In his judgment, Williams AJ said:

'As I said in the course of argument, today is a black day in the history of the administration of criminal justice in Queensland. The appellant was convicted of rape by a jury and has spent some approximate 10 months in custody in consequence of that conviction.'⁵

It is not unusual for police and prosecutors not to request DNA testing of crime scene material, even where such testing would clearly provide relevant evidence. Nor does failure to do so necessarily constitute grounds for an appeal against conviction.⁶ Unfortunately, Button served 10 months jail before his release; although, as soon as the result of the DNA test became known, the Queensland Court of Appeal arranged for an urgent listing the next day and Button was subsequently set free. At the time of Button's release, criminologist Professor Paul Wilson said:

'One of the big advantages of DNA, which is often forgotten, is that as well as allowing the police and the authorities to convict the guilty, DNA very clearly allows us to make right mistakes which have been made in the criminal justice system. So miscarriages of justice can be corrected, and have indeed been corrected in other countries, and now, of course, including in Australia.'⁷

THE COSTS OF DNA EVIDENCE

However, correcting these mistakes costs both time and money, and innocent people may often serve significant sentences before mistakes are corrected. The expense of DNA testing is significant in another sense:

'Costs of increased reliance on DNA technology in criminal investigations include not only the obvious financial costs of scientific expertise, laboratory equipment and the administration of information databases ... A further, unquantifiable cost of the use of DNA evidence is a possible reduction in individual freedoms, notably the right to privacy. The use of DNA evidence involves invasions of bodily integrity and the scrutiny of individual genetic information, some of which may be coerced, both lawfully and otherwise.'⁸

As at 7 July 2007, there have been 204 post-conviction DNA exonerations in the US. It is cause for concern that the average sentence served by these people before being exonerated is 12 years.⁹

In Australia, there is nothing quite the equivalent of the New York Innocence Project, founded by attorneys Barry Scheck and Peter Neufeld in 1992 at the Benjamin N Cardozo School of Law. There is certainly room for such a panel here, given that our current appeals process is not well-equipped to deal with the particular issues arising from post-conviction DNA evidence.¹⁰

JURIES AND EXPERT EVIDENCE

DNA evidence presents other challenges to our criminal justice system, largely related to the quality of the scientific evidence. In the case of jury trials, the judges are the gatekeepers to ensure that scientific evidence is intelligible, and of real probative value.¹¹ Just as it may be said that 'there is little evidence that can so persuasively mislead as bad circumstantial evidence',¹² the same may be said of

DNA evidence. The fact that DNA evidence requires expert opinion to be comprehensible compounds the problem, since the accuracy and objectivity of that expert evidence is harder for the court to test.¹³

Juries have always been called upon to judge between conflicting experts. However, as technology grows more complicated and esoteric, the difficulties for juries in evaluating and deciding on expert evidence are likely to increase.

DNA evidence has a powerful effect on a jury, weighing heavily on how they perceive the accused. In 2002, *Current Issues in Criminal Justice* published a study of 200 sexual assault cases investigated in Queensland. The study showed that jurors were 33 times more likely to convict in cases when prosecutors introduced DNA evidence than in similar cases where no DNA evidence was introduced. The obvious problem here is the loss of the presumption of innocence.

Jurors are usually convinced of the precision and conclusiveness of the science that is DNA-matching, and are usually unaware of the many errors that can occur throughout the testing and interpretation periods. Just as there was a need for judges to explain the meaning of 'reasonable doubt' in criminal cases to juries, so too should the dangers of relying on DNA-matching be set out. Problems that can cause uncertainty include results with a partial match, a weak reading, or a sample from a crime scene that has a mixture of DNA.

When dealing with a case involving DNA evidence, a court may not substitute reliance on a mathematical expression of probability for proof of guilt beyond reasonable doubt.¹⁴ The court must consider the statistical DNA evidence, together with all other evidence in the case, before deciding whether the accused is guilty beyond reasonable doubt.¹⁵

DNA evidence has highlighted the importance of ensuring that juries understand expert evidence.¹⁶ It should be recognised that the average jury may find it difficult to make responsible decisions on these matters.¹⁷

The admissibility of any evidence, including expert evidence, is decided as a question of law, and is thus for the judge to determine. Expert witnesses' credibility may be challenged on a *voir dire*, and they may also be cross-examined before the jury to test their or her competence and credibility.¹⁸ A judge's incorrect summing-up of expert evidence to a jury can also be appealed if the mis-statement may reasonably be considered to have affected the verdict.¹⁹ Further, a trial judge has a general discretion to exclude expert evidence (which would otherwise be admissible) if it is considered to be unduly prejudicial; that is, when its probable prejudicial effect on the jury is out of proportion to its value as evidence.²⁰

Experts must explain how they arrived at their opinion, and the facts upon which their opinions are based must be available to the trier of fact.²¹ It is not enough for expert witnesses simply to state their opinion. Courts must know the basis of experts' opinions, and the appellate courts have strongly criticised instances where this requirement has not been observed.²² However, situations will arise in which experts on different sides will give different or conflicting evidence.

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The trier of fact must weigh expert testimony like any other evidence,²³ and this may be a difficult task. Conflicts of evidence are to be resolved by the jury as the trier of fact.²⁴

The question that arises is whether jurors should be asked to decide disputes between experts, where the experts were unable to determine the dispute between themselves. Judges have refused at times to allow DNA evidence to be put before a jury. In *R v Van hung Tran*, it was held:

'Whilst I do not wish to be critical of anyone, as I know these matters are very difficult, I believe that because of the views about the presence or otherwise of the upper faint band, and the criticism of the scientific testing, that to put this evidence before the jury, in my view, would have a tendency to produce a misleading and confusing impression for the jury.'²⁵

However, juries cannot act as experts in matters calling for expertise.²⁶ In *Anderson v R*,²⁷ it was held to be a 'serious misdirection' for the trial judge to invite the jury to disregard an expert's uncontradicted opinion. The criminal standard of proof is beyond reasonable doubt, and a jury may find a case proved to that standard despite the disagreement of experts on either side. In *R v Sodo*,²⁸ Widgery LCJ said:

'The truth of the matter is that juries are perfectly entitled when experts before them differ to decide, if they think fit, that one expert is telling them the right and proper answer and the other is not, and if they reach such a conclusion beyond reasonable doubt it is proper for them to act on the opinion of one expert although it is contradicted by another expert.'²⁹

But this does not mean that such a verdict may not be appealed. It is clear that disagreement between experts may, in certain circumstances, create doubts in either a civil or a criminal case as to whether that case has been proved to the necessary standard. Such cases often require the jury to make very subtle distinctions, and the judge's summing up and charge to the jury must be done with care.

The trier of fact is not obliged to accept expert evidence over that of an eyewitness.³⁰ However, where the expert evidence (for example, DNA evidence) favours the accused in a criminal trial, and nothing in the facts supports a contrary conclusion, a verdict against the expert evidence cannot be sustained.³¹ Where there has been a conflict between expert witnesses, appellate courts are reluctant to

substitute their judgments for those at first instance. This is because the trial judge has the advantage of assessing the witnesses' demeanour and credibility first-hand. However, appellate courts may intervene if they are satisfied that this advantage could not sufficiently explain or justify the trial judge's actions.³²

CONCLUSION

The consequences of the introduction of DNA evidence to help solve crimes have shown how fallible our system has been in the past. Innocent people have been wrongfully convicted and sentenced to jail (or death in other jurisdictions) before DNA testing was available to establish their innocence. At present, we do not have a good post-conviction acquittal process when DNA testing exposes a wrong conviction. Frank Button, for example, served 10 months in jail before his release. There appears to be no reason why Australia should not have an executive acquittal process as exists in the US. ■

Notes: **1** Deoxyribonucleic acid, the genetic material of nearly all forms of life. DNA is used to store the genetic information of all living creatures, with the exception of the RNA viruses. **2** Former Minister for Justice and Customs, Senator Amanda Vanstone, quoted in Fred Brenchley, 'The XY Files', *The Bulletin*, 20 June 2000. **3** Gregor Urbas, 'DNA Evidence In Criminal Appeals and Post-Conviction Inquiries: Are New Forms of Review Required?' (2002) 2(1) *Mq LJ*, 6. **4** *R v Button* [2001] QCA 133. **5** *Ibid.* **6** Urbas, *Op. Cit.*, p16. **7** National ABC radio, Mark Colvin 5.15pm, 10 April 2001, available at <http://www.abc.net.au/pm/stories/s275464.htm>. **8** Jeremy Gans and Gregor Urbas, 'DNA Identification in the Criminal Justice System', *Australian Institute of Criminology Trends & Issues*, No. 226, p6 (citations omitted). **9** Innocence Project, January 2008. **10** Urbas, above note 3. Also for a learned and interesting discussion on these issues, see Lynne Weathered, 'A Question of Innocence: Facilitating DNA-based Exonerations in Australia.' [2004] *DeakinLRev* 13. **11** See, for example, *R v Van hung Tran* (1990) 50 A Crim R 233 at 242, where McInerney J expressed reservations about putting matters of difficult dispute between experts before a jury, on the basis that they were not really in a position to decide them. **12** RE McGarvie, *Circumstantial Evidence and Justice Today* (1993). **13** *Ibid.* **14** See *R v GK* (2001) 53 NSWLR 317 at 323, per Mason P; *R v Karger* (2002) 83 SASR 135 at 139, per Doyle CJ. **15** See *Riley v The State of Western Australia* (2005) WASCA 190 at [30], per Steytler P. **16** For a sound explanation of forensic DNA testing and analysis, as well as observations and findings about the DNA evidence itself, see Mazza DCJ in *Bropho* (2004) 36 SR (WA). **17** Geoffrey Flatman, 'DNA: A Trial Lawyers Perspective', available at <http://www.aic.gov.au/conferences/medicine/flatman.pdf>. **18** *Polycarpou v Australian Wire Industries Pty Ltd* (1995) 36 NSWLR 49 at 75, per Hadley JA. **19** *Simic v R* (1980) 144 CLR 319 at 326. **20** *Harriman v R* (1988) 167 CLR 590 at 594-5. **21** *R v Jenkins: Ex parte Morrison* (No. 2) [1949] VLR 277 at 303. **22** See, for example, *Arnotts Ltd v Trade Practices Commission* (1990) 24 FCR 313 at 345-354; (1990) 97 ALR 555 at 589-97; *Hillier v Lucas* [2000] SASC 451 at [352]. **23** *Richmond v Richmond* (1914) 111 LT 273; *Bourgeois v Roudolfich* 580 So 2d 699 (1991); *Hocking v Bell* (1945) 71 CLR 430 at 436, per Dixon J. **24** *Chamberlain v R* (1984) 153 CLR 521 at 598, per Brennan J, referring to conflicting evidence of defence and prosecution experts at the initial trial. **25** *R v Van hung Tran* (1990) 50 A Crim R 233. **26** *R v Lawless* [1974] VR 398 at 423. **27** [1972] AC 100. **28** (1975) 61 Cr App Rep 131. **29** *Ibid.* **30** *Hollingsworth v Hopkins* [1967] Qd R 168. **31** *Hall v R* (1988) 36 A Crim R 368 at 371. **32** *Watt (or Thomas) v Thomas* [1947] AC 484 at 488.

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