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DNA EVIDENCE IN CRIMINAL LAW

The O.J. Simpson trial seems to be constantly on the television screen and in the newspapers and a lot of people are following its progress. Many are waiting to see if the DNA tests will prove whether O.J. is guilty or not. The case is, however, highlighting the problems with using DNA testing as evidence.

There are many things that can go wrong with DNA testing. This means that if a lot of weight is given to DNA evidence, a wrong result may occur.

Initially, DNA testing was hailed as a breakthrough in forensic science. It was thought to produce evidence that was beyond question. Often, where DNA evidence was used to prove that a person was guilty, the trial was considered over from that point. The defence saw no use in trying to dispute the evidence. In some cases, where the accused was told that there was DNA evidence against them, they pleaded guilty because they saw no way to win.

Over time, however, there have been a number of major cases which have shown that DNA testing is not as reliable as previously thought. While there are merits to the scientific advances which have led to DNA profiling, there are great dangers with it being accepted as indisputable proof of guilt in courts of law, particularly when there are questions regarding the protective procedures adopted in chemical testing of sensitive? material.

PROBLEMS WITH DNA TESTING

Although the process of DNA testing is quite reliable in itself, there are numerous stages in which human error, for example, causing contamination, can occur. This can make the result either unreliable or simply wrong. Although the DNA technology appears sound, there have been some serious problems with its application where laboratory standards, procedures and safeguards have been inadequate.

This is one of the main arguments against relying on DNA results in a criminal case. There are a number of cases, in Australia and overseas, which have illustrated the danger of doing so.

DISCUSSION QUESTIONS

1. Do you think it likely that other large companies will take heed of the AIS case and put a stop to discriminatory practices? Can you think of other examples of indirect discrimination against women in the workplace?
2. What is the significance of this case as a class action?
3. To what extent do you think this case has cleared up the problems that existed with the definition of indirect discrimination?
4. The limitation period for taking an action against discrimination is 6 months (although the President of the ADB has a discretion to accept complaints after this time). What problems might there be with this?

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THE CHAMBERLAIN CASE

One of the most outstanding examples of the problems of relying on scientific evidence in Australia is the Chamberlain case. Lindy Chamberlain was accused of killing her child and blaming a dingo for the death. Lindy was convicted on the forensic evidence produced at her trial and sentenced to gaol. A Royal Commission of Inquiry was held to look into this case. It found that:

- there had been a failure to use adequate controls, particularly on blood samples from the Chamberlain car, and there had been testing done on articles from which a clear result could not have been expected;
- there had been a failure to test the anti-foetal haemoglobin anti-serum before use and it had been used on material it was not designed to test;
- there had been excessively hasty testing and employment of tests by scientists who were inexperienced in their use;
- there had been destruction of some of the testing material without recording the results, there was no system for cross-checking results and procedures and scientists had not consulted with each other.

The Inquiry concluded that Lindy had been convicted wrongly and, as a result, her conviction was quashed.

THE CASTRO CASE

This was an American case. A mother and her two year old daughter had been stabbed to death in their apartment and Jose Castro, a neighbourhood handyman, was charged. The evidence against him was a small amount of blood on his watch which the prosecution argued, on the basis of DNA testing, was one of the victim's.

Although the prosecution lawyers and scientists in the case insisted that the DNA testing had produced a reliable result, the judge came to a different conclusion. He looked closely at the way the testing laboratory had carried out the experiments and found similar problems as with the Chamberlain case :

- there had been differences between the scientist's report and the actual findings;
- the laboratory records had not been kept properly;
- proper controls during the testing had not been in place;
- the scientists had done the testing concentrating on finding evidence of guilt (bands that matched) rather than being objective;
- the sample of blood used had deteriorated and could not give a clear result;
- human contamination had occurred which made the results unreliable;
- statistics had been misrepresented.

The judge ruled that the DNA test result could not be admitted as evidence.

FORENSIC SCIENCE AND LAWYERS

It is not simply the fact that there are problems with DNA testing, itself, that has made evidence based on it produce unsatisfactory results in the courts. There are other problems also. One of the major problems is the inability of lawyers to deal with such evidence.

Legal expertise generally does not include forensic science. For this reason, when preparing a case involving scientific concepts and evidence, such as DNA evidence, lawyers must turn to scientists as expert witnesses.

This has its own problems. For example, when a lawyer is presented with expert scientific evidence from the other side, they are not really in a position to oppose that evidence as unreliable and inadmissible if they have no knowledge of science. This means that forensic experts are often not subjected to rigorous and well-informed cross examination designed to test the quality of the scientific work they have done or the soundness of the processes they or their laboratory have followed. Such evidence may go unchallenged, which is contrary to the idea of an adversary legal system.

What is more, lawyers who are unfamiliar with science may not use their own forensic expert witnesses to the greatest advantage. They need to be familiar with a subject in order to ask the right questions of their witness for their case having regard to the latest developments in practice and technology.

ESSAY QUESTION

"With the advance of technology in science, medicine, engineering and other specialist areas lawyers, are no longer the champions of the courtroom".

Discuss with reference to the use of expert witnesses in court.

SCIENTISTS IN COURT

In cases where lawyers are forced to rely on expert witnesses, such as scientists, the case often becomes one of 'hired champions' pitted against one another as advocates rather than objective scientists. The expert witnesses can lose the detachment or objectivity they need to properly present their opinion. Such expert witnesses may see their reputation at stake, become dogmatic, and, at times, speak outside their area of expertise.

This situation is not helped by the fact that scientists are employed by the prosecution or the defence. From the outset, they are on one side or the other. This leads to a lack of objectivity in testing. A

scientist employed by the prosecution feels that be or she is being paid to come up with results which prove that the accused is guilty. A scientist employed by the defence is in the same predicament.

DISCUSSION QUESTIONS

1. To what extent do you think the situation where the prosecution and the defence hire their own scientists to do testing for evidence and present their findings in court might undermine the objectivity of a scientist?
2. To what extent do you think a scientist may see their reputation relying on their evidence being accepted by the court?
3. Lawyers select scientists who they think will come up with evidence which supports their client's case. Do you think this is a satisfactory situation?

THE JURY AND DNA EVIDENCE

Another major problem in the use of DNA evidence is that jurors can find it very difficult to understand. Furthermore, they do not have the scientific knowledge to assess the evidence where scientists disagree. They may be easily seduced by the opinions of scientists.

Jurors are randomly selected lay people from the community. They are required to perform the difficult and challenging task of sifting through large amounts of evidence which may be presented to them over a number of months.

In some recent cases in Australia this problem has been recognised. In *R v Tran* (1990) 50 A Crim R 233 and *R v Lucas* unreported, Supreme Court of Victoria, 16 August 1991, it was held that the prosecution-led DNA evidence was outside juror competence and the evidence was excluded.

In these cases, it was decided that the conflicting evidence of the scientists put the jurors in the position where they were not in an adequate position to adequately evaluate the competing expert claims.

DISCUSSION QUESTIONS

1. Do you agree with the findings in the two cases above that where scientists disagree about scientific evidence, the evidence should be rejected?
2. How do you think the problem of having jurors sit on a case involving expert scientific evidence which they often do not understand might be solved?
3. Some people have argued that in a case which relies heavily on scientific evidence the jury should not be made up of lay people but of scientists. Do you agree with this? What advantages/disadvantages do you see with this proposal?
4. In cases involving an area in the forefront of scientific endeavor, such as DNA profiling, do you think there may be problems for judges sitting on these cases? If so, what might these problems be?