

Unusual DNA Cases

DNA Evidence in Landmark Cases

Have students read the following cases.

Have a class discussion regarding the use of DNA evidence to exonerate and to convict as was used in these unusual cases.

You may wish to ask students to research these cases in depth, the citations are given; or to research other cases which utilised unusual DNA.

Exoneration by DNA Testing

***Regina v. Morin*, [1995] O.J. No. 350**

Guy Paul Morin was charged with the 1984 sexual assault and murder of nine year-old Christine Jessop, his next-door neighbour in Queensville, Ontario.

At his first trial in 1986, he was acquitted by a jury. However, the Crown appealed the acquittal, arguing that the trial judge made fundamental errors when instructing the jury about the meaning of reasonable doubt. The Ontario Court of Appeal agreed, set aside the acquittal and ordered a new trial on the charge of first-degree murder. The Supreme Court of Canada upheld this decision, and Mr. Morin was arrested again.

The second trial ended in a guilty verdict in 1992, and Mr. Morin was sentenced to life imprisonment. Mr. Morin's defence lawyers filed an appeal of the conviction with the Ontario Court of Appeal. While this appeal was pending, new forensic DNA technology that was previously unavailable tested semen samples collected in the original investigation. It was concluded that Mr. Morin could not have been the perpetrator.

Finally, in 1995, ten years after Mr. Morin was first arrested for Christine Jessop's murder, the appeal of his conviction was allowed based on the DNA report and he was acquitted. Mr. Morin, who had always maintained his innocence, was exonerated.

The wrongful conviction of Mr. Morin prompted a major public inquiry into the conduct of the police and the Crown during the investigation and Mr. Morin's trials, which revealed significant misconduct. The report of this inquiry can be found on line at:

<http://www.attorneygeneral.jus.gov.on.ca/english/about/pubs/morin/>.

The use of new DNA technology to exonerate Mr. Morin also prompted reinvestigation into other cases, and there have since been other wrongfully convicted individuals exonerated by modern DNA testing in Canada.

Use of Cat DNA

Regina v. Beamish (1999), 177 Nfld. & P.E.I.R. 265

Douglas Beamish was convicted of the second degree murder of his former common-law wife, Shirley Duguay, at a jury trial in 1996. Ms. Duguay had been missing for seven months when her badly-beaten body was found in a shallow grave near the small town of North Enmore, Prince Edward Island in May 1995.

The evidence against the accused was very persuasive. It included testimony from the accused's brother about a letter he saw Mr. Beamish deliver to Shirley stating that he would kill her, himself and their three children if she would not take him back. The jury also heard the testimony of Anne Buker, the accused's former common-law wife, telling of his prior history of extreme violence against her.

There was also very strong forensic evidence against the accused. What makes this case very unusual is that it is the first time in Canada that animal DNA was admitted as evidence to link the accused to a crime. The police used DNA from Mr. Beamish's cat, Snowball, to link the accused to a jacket containing the victim's blood. The accused had been seen wearing the jacket the day before Shirley Duguay disappeared, and it contained a piece of cat hair that forensic testing matched to Snowball.

Mr. Beamish appealed his conviction to the Prince Edward Island Court of Appeal. In 1999, the court dismissed his appeal. The Court of Appeal rejected Mr. Beamish's claim that the cat DNA should not have been admitted at trial. The court observed that it was proper for the trial judge to admit the evidence, as it was up to the jury to decide how persuasive it was.

The Use of Mitochondrial DNA

***R. v. Woodcock*, [2006] O.J. No. 5186**

The Ontario Superior Court of Justice decision of *R. v. Woodcock* analysed the admissibility of mitochondrial DNA (“mtDNA”) evidence during the re-trial of the accused for two counts of first-degree murder, four counts of attempted murder and numerous other charges.

Mitochondrial DNA is distinct from nuclear DNA and occurs in much smaller amounts. Each person has a unique nuclear DNA profile, whereas maternal relations will generally have the same mtDNA profile. Thus, as mtDNA evidence is less conclusive than nuclear DNA, which is a reliable “unique identifier”, mtDNA is generally only used where nuclear DNA is unavailable.

In this case, two persons had been involved in an armed robbery that resulted in the shooting of numerous people; one person had already been convicted for two counts of first-degree murder. At issue in this decision was the admissibility of mtDNA evidence that was obtained from three hairs recovered from a stolen vehicle (which belonged to one of the deceased) that was used before and after the shootings. The Crown wanted to use the evidence of the hairs to link the accused to the crime by establishing that he was the second person in the vehicle.

The police recovered a single hair from a blanket in the front seat of the vehicle and two hairs from vacuuming the back seat. They also recovered hairs belonging to other individuals in the vehicle. In the opinion of scientists, the mtDNA profile from the three hairs and that of the accused was indistinguishable. The Crown wanted to introduce this evidence to the jury and use expert evidence to explain mtDNA and how it could be used to identify that the accused was the second person in the vehicle.

One of the experts, Dr. Chahal, performed tests on the three hairs and found that there were no differences between the hair samples found in the vehicle and the mtDNA of the accused (which had been obtained previously). Dr. Chahal compared these results against the FBI mtDNA population database, which assists scientists in determining how rare a particular mtDNA type is in the general population. Using the results from the three hairs against this database, Dr. Chahal stated that 99% of the population could be excluded as potential donors of these samples.

This mtDNA profile was only found within the “Caucasian” sub-group of the population (the accused was Caucasian). Therefore, while it was highly likely the hair came from the accused, it could still have come from other individuals.

Thus, for example, the testing results showed that the hairs could have come from the other person involved in the crime, although it was inconclusive.

The defence argued that there was no evidence that the hairs more than likely came from one of the shooters. The hairs were not found on or associated with any item or object that could be directly linked to the accused. Further, the Crown could not establish where the hairs were prior to their discovery or when they were deposited in the vehicle. For example, one hair was located on a blanket that was packaged by the police – the hair could have been deposited on the underside of the blanket long before the crime. Also, the hairs could have belonged to other individuals, as other hairs were found that belonged to approximately ten other people. In essence, the defence stated the evidence of the three hairs only allowed weak inferences, based on circumstantial evidence, to be drawn about the crime in question.

The judge disagreed and the evidence was admissible. As long as there was evidence capable of a “common sense inference”, the relevance of the evidence could be established. Given that the vehicle was not a ‘public’ vehicle, the number of people entering it would be relatively few. The fact that there were hairs of up to ten other individuals in the vehicle did not render the evidence in question irrelevant.

The evidence indicated that both of the accused occupied the front seats of the vehicle, and perhaps were in direct contact with the blanket. Evidence from the surrounding circumstances had to be assessed to determine if a link existed between the hairs and the accused. There was nuclear DNA (from blood) in the vehicle of the other person convicted of the crime; it was known that two people jointly committed these crimes; the accused and the convicted person were seen together the following morning after the crime in question; in the time period following the murders, three subsequent robberies occurred involving the use of handguns stolen from the crime in question – the accused pleaded guilty to one of those robberies and was in possession of one of those handguns.

In conclusion the judge stated:

No reasonably informed member of the public would say that all of these circumstances taken together do not as a matter of logic and common sense constitute some evidence on the question of whether or not the hairs were deposited by Mr. Woodcock...