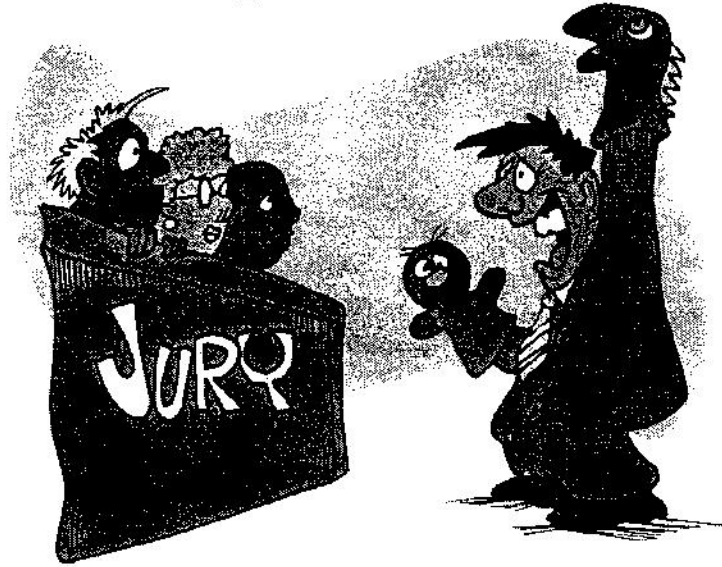


DNA & The O.J. Simpson Double Murder Trial



A Watershed Case

Forensic DNA analysis had been around for over 10 years, however the general public did not know much about it before 1994. The very high profile O.J. Simpson double murder trial brought this technology to the attention of the world.

Background Details

On the afternoon of June 13, 1994 in the upscale suburb of Brentwood in Los Angeles, California, the slain bodies of Nicole Brown Simpson and Ron Goldman were found laying in Ms. Simpson's backyard. The crime scene was awash in blood as both victims had died from multiple stab wounds inflicted during a violent struggle between the victims and their attacker(s). When members of the Los Angeles Police Department (LAPD) arrived they found one black leather glove soaked in blood and some bloody footprints, but no weapon or fingerprints.

Nicole was the ex-wife of famed former NFL superstar/sportscaster/actor O.J. Simpson. She and O.J. had two young children together - a boy and a girl. Nicole and O.J.'s marriage had been a turbulent one - she had called the police to their home on at least two occasions after O.J. had become violent towards her. After they divorced, they shared custody of their children so they had frequent contact with each other.

Ron Goldman was an aspiring actor/model who worked as a waiter at a popular restaurant to make ends meet. Ron and Nicole were acquaintances and there was some speculation that they were romantically involved with one another, however this has never been confirmed.

When police went to O.J. Simpson's estate to notify him of his ex-wife's death, he was not there. However, detectives discovered bloodstains on the outside of his Ford Bronco which was parked on the street. They also found a black leather glove, soaked in blood,

laying behind his house. This gave the police enough reason to obtain a search warrant for O.J.'s home.

When Simpson's home was searched, two black socks with blood on them were recovered from his bedroom, and some small droplets of blood are found on the driveway leading up to his house.

When police finally tracked down O.J. Simpson and informed him of his ex-wife's death, they soon began questioning his alibi on the evening of June 13th. Mr. Simpson told police that he met Nicole and her family at their daughter's dance recital in the afternoon. He then went home and spent the early evening with his friend/house guest, Kato Kaelin. O.J. then said that he had been picked up from his estate late in the evening and was driven by limo to the airport, flying to Chicago at 11:45pm. When Kato Kaelin was questioned, he told police that he had been with O.J. from 7:00 pm until 9:45 pm. Then O.J. said he was "tired" and did not see him again until 11:00 pm. From between 9:45 pm until 11:00 pm on June 13th, O.J.'s whereabouts were unknown.

Within a week after Nicole Brown Simpson and Ron Goldman's deaths, O.J. Simpson was charged with murder. The LAPD had many types of evidence against O.J. Simpson, however one of the key pieces of evidence used by the prosecution was the DNA evidence found at the crime scene.

DNA Evidence & Probability



The murder of Nicole Brown Simpson and Ron Goldman was very violent, and as a result the exclusive source of DNA was blood. All the DNA evidence found was analyzed by two different agencies: a private laboratory, *Cellmark Diagnostics Inc.* and a government facility, the *California Department of Justice*.

Since some sections of DNA are more unique than others (ie. VNTR, STR), a DNA match is supported by a probability ratio based upon population frequency values. The probability ratio predicts the numerical chance that the DNA match could belong to someone else other than the specified individual.

There were over 100 pieces of DNA blood evidence used in the Simpson & Goldman murder case - listed below are ten samples of the DNA evidence that had been collected during the investigation.

<u>WHERE blood was found:</u>	<u>DNA matched to:</u>	<u>PROBABILITY:</u>
1. O.J.'s Bronco - steering wheel	Nicole B. Simpson	1 in 520
2. O.J.'s Bronco - center console	Ron Goldman	1 in 520
3. O.J.'s Bronco - dashboard	O.J. Simpson	1 in 12
4. O.J.'s Bronco - carpet	Nicole B. Simpson	1 in 990
5. O.J.'s bedroom - black sock A	Nicole B. Simpson	1 in 7.7 billion
6. O.J.'s bedroom - black sock A	O.J. Simpson	1 in 520
7. O.J.'s bedroom - black sock B	Nicole B. Simpson	1 in 990
8. Outside O.J.'s home - glove	Ron Goldman	1 in 1.2 billion
9. Nicole's House - beside victims	O.J. Simpson	1 in 240 000
10. Nicole's House - rear gate	O.J. Simpson	1 in 520

The Verdict and Related Aftermath

After deliberating for less than four hours, the jury found O.J. Simpson not guilty of the murders of Nicole Brown Simpson and Ron Goldman.

After the criminal trial, the families of Nicole Brown Simpson and Ron Goldman brought a civil suit against O.J. Simpson. Interestingly, at this trial O.J. Simpson was found responsible for the crime. However, because it was a civil suit he did not face imprisonment but was ordered to pay millions of dollars to both families.

In another related court battle, Nicole's parents won sole custody of Nicole & O.J.'s two young children - however the judge also granted O.J. occasional visitation rights.

O.J. Simpson moved from Los Angeles to Florida, where he enjoys playing golf and seeing his children on occasion. O.J. continues to deny any involvement in the killing of Nicole and Ron. No other suspects have been identified in this case by either the LAPD or private investigators hired by O.J. Simpson. Thus, no further investigation into the murders of Nicole Brown Simpson and Ron Goldman has been conducted since the trial of Simpson in 1995. As far as the LAPD is concerned, they know exactly who committed the murders.

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The FBI has reported that in their DNA profile database, no two five-locus DNA profiles have ever matched. The closest match was between two three-locus DNA profiles.

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DNA & The O.J. Simpson Double Murder Trial: Related Questions

Name: _____ Date: _____

Multiple Choice Questions (4 marks)

1. Identify the row that correctly identifies a weak DNA match probability ratio and a strong DNA match probability ratio.

Row	Weak DNA Match Probability	Strong DNA Match Probability
A.	1 in 100 000	1 in 5 000
B.	1 in 1 400	1 in 500
C.	1 in 2 000 000	1 in 2 200 000
D.	1 in 1 200	1 in 4 000 000 000

2. What was the source of all the DNA related to the Nicole Brown Simpson and Ron Goldman murders?
- A. blood
 - B. semen
 - C. pubic hair
 - D. fingernail clippings

Use the following information to answer the next two questions.

O.J. Simpson Murder Trial: DNA Samples that Matched the Victims

<u>WHERE</u> blood was found:	<u>WHO</u> it matched to:	<u>PROBABILITY:</u>
O.J.'s Bronco - steering wheel	Nicole B. Simpson	1 in 520
O.J.'s Bronco - carpet	Nicole B. Simpson	1 in 990
O.J.'s bedroom - black sock A	Nicole B. Simpson	1 in 7.7 billion
O.J.'s bedroom - black sock B	Nicole B. Simpson	1 in 990

3. Which piece of evidence from above is the most convincing DNA match?
- A. Blood found on O.J.'s carpet.
 - B. Blood found on Bronco steering wheel.
 - C. Blood found black sock A in O.J.'s bedroom.
 - D. Blood found on black sock B in O.J.'s bedroom.
4. The probability ratio related to the DNA match from black sock A from O.J.'s bedroom was very high because
- A. both socks had foreign blood stains upon them
 - B. both semen and blood were found on the socks
 - C. the DNA patterns found and analyzed were very uncommon
 - D. the DNA samples compared were from a five different people

Numeric Response Question (4 marks)

Use the following information to answer the next question.

DNA Evidence from the O.J. Simpson Trial

<u>Site of blood:</u>	<u>DNA matched to:</u>	<u>Probability:</u>
1. O.J.'s Bronco - carpet	Nicole B. Simpson	1 in 990
2. Nicole's House - rear gate	O.J. Simpson	1 in 520
3. Outside O.J.'s home - glove	Ron Goldman	1 in 1.2 billion
4. Nicole's House - beside victims	O.J. Simpson	1 in 240 000

5. Organize the probability ratios as stated above from the weakest to the strongest DNA matches: _____, _____, _____ and _____. (1 mark)

Written Response Questions (4 marks)

6. Why was a probability ratio included with every DNA print match at the O.J. Simpson double murder trial ? (2 marks)
7. Explain why did the DNA evidence presented at the O.J. Simpson trial did not convince jurors that O.J. was guilty? (2 marks)

