

DNA Fingerprints

Harlan Levy, *And the Blood Cried Out*, Basic Books, 1996, 223 pp., \$24.00

Science tightens the net on criminals, but O.J. Simpson got away (the first time).

reviewed by Thomas Jackson

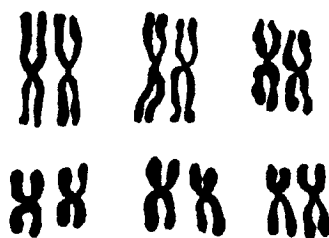
How reliable is DNA testing? Can a single drop of blood incriminate a murderer? How good was the DNA evidence in the O.J. Simpson criminal case? These are the sorts of questions raised in a recent book written by a former New York City assistant prosecutor. It is a non-technical volume, padded with lots of crime details, but along the way it touches briefly on a controversy about race that for a time kept DNA evidence out of a few courtrooms.

DNA testing is based on the fact that, except for identical twins, everyone has a unique set of genes and therefore a unique pattern of the material from which genes are made—DNA. Even the tiniest bits of the human body contain DNA. Skin, blood, hair, semen, even saliva can be tested for it. Thus, a semen sample taken from a rape victim can be compared with the DNA patterns of a suspect's blood sample to determine the chances that the semen came from the suspect. If a DNA sample is exposed to the weather or to contaminants like gasoline or alcohol, it may degrade and become unusable, but it can never change in such a way as to produce a false identification.

Although all people have unique genes, the aspects in which individuals differ from each other are governed by just a small amount of genetic material; 99 percent of each person's genome is identical to everyone else's (and 97.5 percent of human genes are identical to those of chimpanzees). DNA testing must therefore find the spots that are different, and the more that can be matched the more accurate the identification will be. If the crime-scene sample is tiny or badly degraded, it may be possible to find only one DNA location where humans differ from each other, *and* where there is a match with the suspect's sample. If every hundred or so people

have that DNA pattern there is a one-in-a-hundred chance that the crime-scene sample came from the suspect.

If, at *any* point on a gene there is a mismatch, the samples cannot have come from the same person. However, as the number of locations that match increases, the odds against the suspect are multiplied. Two, three, or four one-in-a-hundred matches mean that only one in 10,000, 1,000,000, or



100,000,000 people could have the same DNA. New techniques can now be used to find many matches in very small samples, and it is possible to make a one-in-ten-billion identification, even though there are only five billion people on earth. The world population would have to double before random variation could produce someone with that many matching segments of DNA.

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Numbers like this make DNA testing a very persuasive means of identification. As Mr. Levy points out, it is so persuasive that between 15 and 20 people who had been convicted and gone to prison have been *released* on the basis of post-trial DNA testing. The tests alone were enough to overturn a verdict thought to be "beyond a reasonable doubt." For example, there have been cases in which a rape victim swore she could identify her attacker, but a DNA test showed that the semen in her underwear could not have been his.

Testing can prove in other ways that justice has not been done. In the case

of the rape and near-murder of the Central Park jogger by a gang of blacks and Hispanics, at least one semen sample taken from the victim did not match any of the suspects. The jogger was raped repeatedly, and since there were 50 to 75 boys in the "wilding" gang that attacked her, some rapists were never identified or punished.

"Weak" DNA matches are increasingly unlikely because of new techniques, but can still be important evidence. Mr. Levy notes that in the case of the World Trade Center bombing, a DNA match of the saliva used to lick and seal an envelope gave a one-in-50 match with a suspect. This was not decisive identification but was very useful in combination with other incriminating evidence.

One of the most promising uses of DNA is to maintain an inventory of samples from known violent criminals and sex offenders. This way, if a criminal leaves behind even a hair or a drop of blood it can be compared with samples in the DNA bank. Whenever there is a struggle, the victim should pull some hairs from the assailant or wound him enough to draw blood. Samples can make the difference between conviction and acquittal. This is particularly important in rape cases, approximately 50 percent of which go unsolved.

Mr. Levy points out that a suspect can be compelled to give a blood sample. Even if it is likely that the sample will send him to jail or to the electric chair, this is not impermissible self-incrimination because blood is evidence, not testimony. Forcing a man to give blood is no different from getting a warrant and forcibly searching his home.

The Race Card

DNA testing is very new—it was first used in a criminal trial in 1987—but it has already been the subject of much needless controversy. Gene frequencies differ by race, and when crime laboratories announce the likelihood of a match they offer different odds for different races. A

sample from a suspect may represent a match for one of every 10 million blacks but for only one in a billion whites. This is another way of saying that the crime-scene sample was more likely to be from a black, but if the matching suspect sample is from a white, the odds that he was the perpetrator are that much higher.

Richard Lewontin of Harvard has spent many years trying to discredit IQ testing and genetic explanations for differences in IQ. In 1991 he co-authored an article in *Science*, in which he argued that broad racial categories are meaningless, so the numbers usually reported for a match are also meaningless. A few courts actually disallowed DNA evidence on these grounds. The *New York Times* also published several unfavorable articles about DNA testing that misrepresented the science in ways that Mr. Levy finds unaccountable.

People who wanted to discredit testing on racial and ethnic grounds argued that DNA matches should be calculated to produce the *smallest* likelihood of identification. In other words, if one DNA pattern in a crime-scene sample were found in one in 50 Sicilians and another pattern in the same sample were found in one in 100 Koreans (but both were found in only one in 1,000 or more of every other racial group) then the smallest numbers should be multiplied together to produce the likelihood of a match. This technique would have required that every possible suspect be thought of as an improbable racial mix of *each* of the ethnicities that happen most frequently to have *each* of the DNA combinations found in a crime-scene

sample. This would have weakened the odds against a suspect by 100 or even 1,000 times, such that prosecutors could claim only a one in 1,000 match as opposed to a one in 1,000,000 match. Subsequent scientific findings have confirmed racial differences in DNA patterns, and it is once again standard courtroom procedure to calculate different odds on the basis of race.

Some people think that O.J. Simpson's acquittal damaged the credibility of DNA testing. In a chapter devoted to the case, Mr. Levy explains that the science is so powerful that the defense never attacked it. Instead, it systematically cast doubt on two other things: the motives of police officers and the quality of laboratory procedures. It turned Detective Mark Fuhrman's empty boasting to a screen-writer about how he despised and mistreated blacks, into motivation for a massive frame-up. It also turned evidence of a few sloppy procedures at the Los Angeles police laboratory into the theoretical possibility that all of the incriminating DNA evidence had been "contaminated."

In fact, some of the techniques used by the lab do require great care. When samples are very small, they may be contaminated if the same tweezers are used to pick them up. However, the idea that many samples of the blood of O.J. Simpson and his two victims could have been consistently "con-

taminated" in ways that implicated Mr. Simpson beggars the imagination. Likewise, the police could not have framed Mr. Simpson unless a number of key investigators had spontaneously decided to railroad an innocent man and had stuck to their frame-up story throughout the trial.

Although Mr. Levy does not say so directly, the facts he presents confirm the view that the mostly-non-white jury was simply looking for excuses to acquit. That preposterous theories of contamination and police dishonesty were all the jurors needed is yet more evidence of the racial solidarity blacks take for granted.



Although the Simpson case, with its high-priced experts and flashy lawyers, may have shown that a receptive jury can be distracted from damning DNA

evidence, it has by no means discredited such evidence. As Mr. Levy points out, it is simply not possible to deny a strong DNA identification. If the laboratory finds the suspect's semen in a rape victim, he cannot deny it is his. Instead, he must claim that he and the woman had consensual sex. Likewise, there is no way for a suspect to claim that the blood on his shirt did not come from the victim; he must think up some non-incriminating way to account for its presence.

DNA testing has leapt all the liberal and racial hurdles in its path and, when properly conducted, should provide unshakable evidence. ●

O Tempora, O Mores!

Prop. 209 Wins in California

Once again, the citizens of California have shown better sense than politicians and mediocrats. The voter initiative to ban state-sponsored race and sex preferences won handily with some 55 percent of the vote. This was a margin of victory similar to that of the 1994 initiative to deny schooling and welfare to illegal aliens. Whites, at 60 percent, were the only racial group

to support the measure. Seventy-four percent of blacks opposed it, as did 70 percent of Hispanics and 55 percent of Asians. This was a result roughly similar to that of the 1994 initiative, and is a sign of what whites can expect if they become a minority. Of all religious groups, only Jews (53 percent) and "others"—probably mostly Muslims—(63 percent) voted against the measure. (Prop. 209 Poll, San Francisco Chronicle, Nov. 6, 1996, p. A12.)

The campaign against Proposition 209 was an Orwellian tour de force, arguing that abolishing systematic discrimination meant the beginning of systematic discrimination. One ad highlighted David Duke's support for the proposition, reminding viewers of his KKK past. Women were targets in one particularly desperate commercial. A woman appeared on camera only to have men tear off her lab coat, stethoscope, hard hat, and policeman's cap, while male voices shouted,