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Research Paper



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ABSTRACT

DNA profiling is the greatest advance in forensic science since the acceptance of fingerprint identifications by the courts at the turn of the century. The question often asked of a DNA profile is "is it as good as a fingerprint?" Like many apparently simple questions, it does not have as simple an answer, and gives us an opportunity to reflect on a fascinating paradox. The important difference between fingerprint identification and DNA profiling is that the former has not been derived from a coherent body of data and statistical reasoning, while the latter has this has led to a fundamental difference between the ways that the two kinds of evidence are presented at court. When fingerprint identification is presented the expert will state that he or she is certain that a particular crime mark was made by the originator of a given exemplar print. The weight of a DNA profiling match, however, will 8 be presented by means of a numerical statement typically a "match probability"?

Keywords : Fingerprints, Sample, Oath, Investigation, Wrong Statement, Fact, Judgment, Hostile.

INTRODUCTION:

It is well known principle of criminal jurisprudence that the innocent person not be punished and the same time the guilty person must not be escaped. Today the recent case of Uttrakhand Ex-Chief Minister Mr. Naryan Dutt Tiwari. This case is depending upon the DNA test of Mr. Tiwari. First, Mr. Tiwari was denied and give the false statement about his relationship of Rohit's Mother. After the medical test of DNA, truth is open. Forensic science is experiencing a period of rapid change, in the wake of the dramatic evolution of DNA profiling. The air of triumphalism here is extraordinary: it is the triumph of reaction against progress and is also the exemplification of the chasm between law and science. DNA has entered the vocabulary of the man on the street, perhaps not so much because of the beautiful work of those such as Watson and Crick as more because of the dramatic impact DNA profiling has had on crime detection.

AS A WITNESS

Your DNA sequence is unique amongst all DNA sequences of any human that has ever lived and will live for quite some time to come. Unless you have an identical twin, in which case you do have someone who has the same DNA sequence. But apart form that, your DNA sequence is yours and yours alone. Thus is born the notion of DNA identification. And it was guickly realized that this DNA identification would be especially useful in legal cases, in the criminal courts. In some senses, DNA provides a genetic "future diary" about a person's life, because it contains information about significant future events, such as susceptibility to disease and possibly, about behavioral traits. It may also contain information, which the person has chosen to keep secret (about sexual orientation, for example). Major applications in criminal law .First, it assists in positively identifying perpetrators of crime, particularly in cases of sexual assault and homicide, where identification is often a central issue.6

Second, and perhaps a corollary of the other applications, DNA analysis can exculpate wrongly accused suspects.

Third, DNA tests can identify the remains of victims of violent crimes.⁷ Before the DNA test results are obtained and applied, the legal framework in which DNA samples are obtained needs to be considered. Two issues arise here. What powers do the police already enjoy in this respect and what implications might the technique hold for police powers in the future. Given the powers of search and seizure as described under the Criminal Procedure Code, 1973, the police are restricted in the use of their powers and are required to respect the fundamental and human rights of the individuals and follow a fair and reasonable procedure while obtaining samples as evidence. However, the following three yardsticks can be kept in mind while carrying out crucial investigation:

- (1) The nature of the offence how serious is it?
- (2) The nature of the test-how intrusive is it?

(3) The nature of the evidence obtained-how probative is it? The police comprise the primary investigative body that assists the prosecution's case. All evidence collected by them is used to strengthen the case for conviction. For DNA analysis, they have been empowered to collect samples they think necessary for testing and accordingly send the same to the sole DNA testing laboratory in India at the Centre for Cellular and Molecular Biology (CCMB) at Hyderabad. Police officers and other investigators of the crime scene often have a limited understanding of how to collect, store and ransport DNA evidence. Under financial constraints police are faced with making informal cost-benefit estimates before proceeding to collect DNA evidence. There are also very large financial interests in the success of the test, and their continued application by the courts. The people carrying out the tests have a vested institutional interest in prosecutions being successful.

However, before we step into the ethical and social dilemmas of DNA evidence, we must understand how such evidence is collected. The police have been vested with certain powers in this respect. They can collect various samples from the accused, the victim, the site of the offence and other related material objects, etc. The samples thereby collected can be classified as

1. Intimate samples: - defined as "a sample of blood, semen or any other tissue, fluid, urine, saliva or public hair, or a swab taken fro a person's body orifice".

2. A non-intimate sample means:8

(a) a sample of hair other than public hair,

(b) a sample taken from a nail or under a nail,

a footprint or similar impression of any part of a person's body other than a part of his hand".DNA sampling has already proved itself to be of prime importance in the detection of certain categories of offences, especially those associated with violence. However, certain safeguards should be observed. Firstly a caution should be administered and legal advice offered. Secondly, an independent third party should be present to observe the sampling should the suspect wish and preferably the whole procedure be videotaped. Thirdly, the sampling should be carried out in the circumstances of maximum privacy and when possible by qualified personnel. Fourthly, the suspect should be provided with a portion of the sample for his own analysis. Finally, stricter rules should be enforced about the storage and destruction of samples one from each profile, are within a 'bin' i.e. the two bands are within a specific distance of each other on the autoradiograph. The assumption is that a little variance is allowed so that a particular fragment may not produce a band in the same place always.

PROBLEMS IN SAMPLING OF DNA

First about which little is known is degradation. Very often, the source of DNA from the scene of the crime has been exposed to various chemical actions.9 If the source is blood, then the sample would have undergone chemical and physical change by efflux of time, it may have come into contact with other substances and thereby undergone chemical change the second is at the stage of the preparation of the sample and the application of the chemical scissors, the restriction enzyme used to cut the DNA into manageable fragments cuts the DNA at too many places. Each extra fragment would create an extra "band" on the autoradiograph. Thus, two samples from the same source would produce different "pictures" on the autoradiograph.¹⁰ This would cast doubts on whether there is a "true" pictographic representation of DNA structure at all! Further grounds of attack stem from the profiles. A match is declared when two bands, one from each profile, are within a 'bin' i.e. the two bands are within a specific distance of each other on the autoradiograph. The assumption is that a little variance is allowed so that a particular fragment may not produce a band in the same place always. These hazards would demolish any hope of sustainability of DNA evidence. In the event that a match continues to be confirmed, the significance of the match still needs to be established by calculating the match probability for which the frequency with which the alleles11 represented in the autoradiograph occur within a population.¹² The question is always what the chances are that there could have been another person who could have generated the same sample, which was the basis of the test. Admissibility, burden and weight. During a trial the proponent of the evidence meets the burden of establishing that the DNA analysis performed in the present case provides a trustworthy and reliable method of identifying characteristics in an individual's genetic material. Additionally, if the evidence is admissible, issues questioning reliability of test procedures may attack the weight of the evidence.¹³ The party preferring the forensic DNA evidence will have the affirmative burden of showing the following:

- (a) the acquisition of the sample,
- (b) the chain of custody of the sample and test results,
- (c) the proper labeling of samples,
- (d) the testing procedures followed, and

(e) the interpretation of the test results by a scientist properly qualified to read and interpret the test results.¹⁴

THE INDIAN PERSPECTIVE

- 1. DNA technology in course of time is bound to play a prominent role in our legal system in both the criminal and civil areas giving a new look to the subject of expert testimony. IN the matters of fixing the paternity and maternity of a child and also in cases of homicide and rape, DNA fingerprinting evidence will be a decisive and clinching factor. In India, barring a negligible number, cases have yet to come before the courts involving expert opinion in the science of DNA technology paternity of the child. The Chief Judicial Magistrate order both of them to in undergo DNA fingerprinting test in order to ascertain the parentage of the child at CCMB, Hyderabad, which is carrying out experiments in this field. As Kunhiraman had no identical twin brother, the court safely arrived at the conclusion that he was the biological father of the child. The recently concluded case of CBI v Santosh Kumar Singh DNA evidence was sought to prove that the deceased had been raped. The defence submitted that it was a malicious attempt to connect the accused with the DNA profile. The so-called DNA profile was found suspicious and shrouded in mystery.
- 2. The Court, however, stated that the State in the matter of DNA identification evidence must satisfy that the physical evidence upon which the test was conducted has been obtained in accordance with law and reached the laboratory without being interfered with due procedure and protocol was applied and that the accused got due opportunity of fair hearing in the matter of analysis and during trial

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