

INTERNATIONAL JOURNAL OF LAW MANAGEMENT & HUMANITIES

[ISSN 2581-5369]

Volume 7 | Issue 2

2024

© 2024 *International Journal of Law Management & Humanities*

Follow this and additional works at: <https://www.ijlmh.com/>

Under the aegis of VidhiAagaz – Inking Your Brain (<https://www.vidhiaagaz.com/>)

This article is brought to you for “free” and “open access” by the International Journal of Law Management & Humanities at VidhiAagaz. It has been accepted for inclusion in the International Journal of Law Management & Humanities after due review.

In case of **any suggestions or complaints**, kindly contact Gyan@vidhiaagaz.com.

To submit your Manuscript for Publication in the **International Journal of Law Management & Humanities**, kindly email your Manuscript to submission@ijlmh.com.

Use of DNA Test Profiling Information in the Justice Delivery System: Human Rights and Right to Privacy Challenges

DR. SHITI KANTH DUBEY¹ AND PRATIBHA CHAUDHARY²

ABSTRACT

DNA test profiling technology is becoming a very potent tool that allows people to be uniquely identified based on their genetic code. In addition to confirming the existence of particular biospecimens at a crime scene. DNA evidence can distinct innocent suspects of wrongdoing. This forensic science evidence has benefited from technological developments that have increased its precision in investigations. These advancements include the creation of validated kits and statistical methodologies. It is like two side swords against crime. The scientific and technological advancement with the changing society has posed new challenges in administration of criminal justice system. Applying the technology in the court, it sometimes becomes very difficult because DNA test profiling always create conflict between right to privacy and right against self-incrimination. the human right and self-incrimination are a human right and raise a contradiction with each person's right to privacy. The state is required to have sufficient laws, along with the DNA data protection banks and an efficient, transparency and removal of DNA sample from Banks.

Keywords: Human Right, Privacy, Technology, Self-incrimination, DNA Test Profiling.

I. INTRODUCTION

Crime has existed in some form or another since the dawn of human society. With the development of technology, there has been a significant shift in both the definition of crime and the methods used by criminals. The first people to apply science to crime were high-level criminals, but DNA profiling technology has revolutionised crime scene investigation. This has made it possible for the criminal justice system to punish evil people and acquit innocent people. However, DNA test profiling technologies must be used in order to employ DNA test profiling technology systematically.

Thus, it is essential that human DNA profiling be controlled & restricted to uses that are permitted by law. The technology of DNA-based fingerprinting has revolutionised Indian law

¹ Author is a Professor at Dr. Bhimrao Ambedkar University, Agra Law College, Agra, India.

² Author is a Research Scholar at Dr. Bhimrao Ambedkar University, Agra Law College, Agra, India.

Since DNA fingerprinting was first successfully applied in the 1980s, it has shown to be a useful tool for identifying the guilty and freeing the innocent. The effective application of DNA technology has resulted in the creation of DNA databases and the implementation of rules in India. In order to safeguard individual privacy and liberty rights, it is just as crucial to safeguard DNA data from misuse (by governments or other entities) as it is to establish a legal authority to supervise the creation of DNA profile. For this reason, without compromising data subjects' rights to privacy and freedom, DNA profiles should not be used or stored. DNA is, in a sense, the blueprint that defines who you are—your unique genetic code. Findings from DNA test profiling have been crucial to the scientific identification of perpetrators in criminal trials as well as in cases involving mother-child disputes, baby swaps, paternity, and some civil courts. When used as scientific evidence to prove a defendant's guilt or innocence, DNA test profiling is significantly more swift, accurate, exact, and conclusive than other forms of human evidence. It can also survive legal review. Timely medical examinations, appropriate bodily fluid sampling, and top-notch forensic analysis can provide indisputable evidence in criminal instances like rape and murder and prevent the need for drawn-out court discussions. Eyewitness accounts can be supported by an explicable scientific theory.

The authenticity of eyewitness evidence can be confirmed using pertinent information deduced from bodily cues, particularly in cases where the witness exhibits hostility. With this state-of-the-art forensic method, statements can be verified by reconstructing crime scenes. DNA regulations were outlined in the UK in 1994 and have since been updated as needed. In this regard, lawmakers in the UK should be applauded for their excellent measures. The development of a framework for police control over the gathering of DNA samples needed for profiling was a key and most comprehensive component. Since his 1988 discovery, courts have considered DNA evidence and its probative significance even in Canada. Legislation pertaining to the administration and gathering of DNA samples for genetic testing has been passed by the Canadian Parliament. Furthermore, the authenticity of eyewitness evidence can be confirmed using pertinent information deduced from bodily cues, particularly in cases where the witness exhibits hostility. Legislative assistance is beneficial to the Canadian justice since specific and detailed legislation pertaining to the admissibility of DNA evidence has been enacted. This allows for the determination of the validity of statements. India has also used more DNA evidence in criminal cases in recent years. It has aided law enforcement in finding offenders and resolving challenging cases. DNA evidence further establishes the innocence of many convicted individuals. Through the analysis of different items discovered at crime scenes, it can be utilised to identify offenders. bodily secretions that are specifically connected to the offence,

such as saliva, hair follicles, fibres, etc. They are specifically connected to the criminal and relevant to the offence. Above direct and visual evidence, this technology is being employed as new circumstantial evidence because of its objectivity, scientific accuracy, certainty, and impartiality. Long-winded courtroom arguments are superseded by indisputable evidence obtained through forensic examination. Thanks to technological advancements, forensic science can now identify people by their DNA sequences. Through the use of this approach, the genetic patterns found in the somatic cells of two different people are compared. Today, DNA testing is a widely recognised technology with applications in many other domains, including identification. One of the most effective and valuable techniques in criminal investigations is DNA test profiling. Its substantial advantages over alternative techniques have led to its widespread acceptance as an identification system. Comparing DNA analysis to other scientific techniques reveals greater objectivity. The Tandoor case, also known as the Naina Sahni case; DNA profiling was done from the burnt remains in the victim's tandoor, is one of the prominent cases in India where DNA evidence resulted in a successful conviction. Skeletal DNA test profiling was used for identification in the high-profile Sheena Bora murder case and the Nirbhaya case, which resulted in multiple legal reforms and modifications.

II. HUMAN RIGHTS AND DNA TEST PROFILING

Human rights are inherently the rights that every man and woman possess for being as a human being. The fundamental international agreements that give the notion of human rights its basic form is the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, and the International Covenant on Social and Economic Rights. Human conscience was compelled to prioritise justice, equality, and liberty on a global, national, and personal level as a result of the devastating events known as the First and Second World Wars. Part Three of the Indian Constitution recognises civil and political rights as fundamental rights, whereas socio-economic rights are outlined as non-enforceable directive principles.³ They serve as a model for governance but are not enforceable. The first generation of human rights is the right to privacy. The three themes of human rights during the French Revolution—liberated (civil and political rights), egalite (socio-economic and cultural rights), and fraternity (group or solidarity right)—were the source of inspiration for the French jurist Karel Vasak. These themes are collectively referred to as the three generations of human rights. The first generation of human rights is civil and political in character, and only the state and its agents are subject to its negative responsibility. According to the Universal Declaration⁴ of Human Rights, no one's

³ The Constitution of India, 1950, article 14 to 32 and art. 36 to 51.

⁴ The Universal Declaration of Human Rights, 1948.

correspondence, family, home, or privacy may be arbitrarily interfered with The International Convention on Civil and Political Rights' Article 17 guards against being subjected to arbitrary interference with one's family, correspondence, or privacy.⁵ Human rights are defined as the rights to life, liberty, equality, and dignity of individuals as guaranteed by the Constitution or as contained in any international covenant or convention and enforceable by Indian courts under section 2(d) of the Protection of Human Rights Act 1993.⁶

(A) The use of DNA test profiling as evidence

DNA profiling is a scientific procedure, and the individual who reports it to the court in both civil and criminal procedures is naturally referred to as an expert witness. While DNA profiling is a reliable tool in criminal investigations, DNA evidence needs to be strictly conventionally forensically corroborated from another source. Any apparent disparity must be fixed by the court. While the accused is free to contest it with an alibi plea, which, if proven to the satisfaction of the court, would be sufficient to avoid the possibility of conviction despite matching DNA profiles, DNA evidence assists the investigating officer in proving the accused's presence at the crime scene and raises the assumption by the court that the accused was involved in the commission of the crime in question. However, it would be incorrect to believe that DNA evidence is merely a type of additional circumstantial evidence conundrum, as Scientific DNA evidence is particularly relevant for circumstantial cases because to its strong character.

(B) Admissibility of DNA Profiling In The United States

When admitting new DNA profiling as evidence to prove someone is innocent or guilty of a crime, there are two rules that must be observed in the United States of America. which are-

- a. The Frye Test, established in the cases of *Frye v. United States*⁷, 26 Article 12.27 of the 1948 Universal Declaration of Human Rights and the 1976 International Convention on Civil and Political Rights.
- b. The Federal Rule of Standard, sometimes known as the Daubert Standard, was established in the *Merrell Dow Pharmaceuticals Inc. v. Daubert*⁸ case.

It was the Frye Test, which calls for passing two tests, and was established in the US Columbia Circuit court decision in the case of *Frye v. United States*. First, a scientific technique cannot be admitted as evidence in court unless it has been approved by the scientific community as a

⁵ The International Convention on Civil and Political Rights, 1976.

⁶ The Protection of Human Rights Act, 1993.

⁷ 293F. 1013(D.C. Cir 1923).

⁸ 509 U.S. 579 (1993).

whole. Secondly, it ought to adhere to the federal rule of evidence's relevancy criteria. The Federal Rule of Evidence, which requires a judge to ensure that the admitted scientific evidence is not only relevant but also reliable and trustworthy and to do so, it must assess the scientific validity of the testimony replaces the Frye Test, according to the US Supreme Court's ruling in *Daubert v. Merrell Dow Pharmaceuticals*.⁹

(C) Admissibility of DNA test profiling in Australia

Similar to the United States and the United Kingdom, Australia has strict legislative measures. In order to provide efficient, adaptable, and responsible management of the criminal justice system, the Australian government has passed legislation that grants police officers the necessary authority to carry out their tasks. The DNA paternity test is carried out in accordance with the guidelines set forth by the 1975 Family Law Act.¹⁰ This Act stipulates that: -

1. Only labs certified by the National Australian Authority are able to conduct DNA analyses.
2. If both parties agree on the affidavit, the paternity test may be conducted.
3. A medical practitioner must gather the biological sample under regulated conditions for DNA profiling. A declaration must be signed by the medical practitioner.
4. The custody statement for the DNA sample needs to be included.

Australia has a statute known as the Crime (Forensic Procedure) Act, 2000. The process to be followed when using forensic science in a criminal investigation is outlined in depth in this statute. This law established the requirements for forensic scientists, technicians, and other law enforcement personnel who work in forensic¹¹ investigations. When necessary, Australian courts employ and follow forensic DNA profiling. For the first time in the criminal justice system's history, a court operating within the Australian Capital Territory rendered a decision in Desmond Applebee's case. The accused in this instance was charged with sexual assault. The following points can be used to summarise the principle that –

1. Australian courts adhere to when evaluating forensic DNA evidence in criminal investigations- Australian courts will admit DNA evidence. It needs to be pertinent to the factual dispute before the court.

⁹ Ibid.

¹⁰ Richard Hindmarsh & Barbara Prainsack (Ed.), *Genetic Suspects: Global Governance of Forensic DNA profiling and Databasing*. (U.K. 2010).

¹¹ The Crime (Forensic Procedure) Act, 2000.

2. As required by the National Australian Authority, the DNA evidence must be provided by a forensic scientist with the necessary qualifications.
3. The DNA evidence needs to be presented in court in the exact way that the law requires.
4. A person with specialised expertise gained from study, training, and experience is the only one who can provide an expert opinion on scientific evidence such as DNA profiling.
5. Statistics to support the probability factor for other suspects besides the accused may be utilised, but caution must be shown in describing the methodology used to determine the probability.

(D) DNA Test Profiling's Admissibility In India

There is no explicit legislation in India that governs the use of DNA profiling to identify criminals. Legislative bodies have made some effort to allow criminal justice administration to function in a way that is consistent with the advancement of forensic science and new scientific methods in criminal administration. rulings pertaining to individuals' self-incrimination in relation to Article 20(3) of the Constitution.¹² In *State of Bombay v. Kathi Kalu Oghad & Ors.*,¹³ a Supreme Court bench consisting of eleven judges decided a case involving self-incrimination. The court held in order for something to be considered self-incriminating, it must be information that is based on the personal knowledge of the person providing it. It cannot be limited to the formal court filing of documents that may shed light on any of the contentious issues but do not include any statements made by the accused based on his own knowledge. An example was given of an accused person who might have a paper written by him, bearing his signature, or bearing his thumb impression.

Regarding Smt. Selvi & Ors. v. Karnataka State: - A Supreme Court bench consisting of three judges deliberated on the question of whether the involuntary application of specific scientific techniques, such as polygraph examinations, narco-analysis, and Brain Electrical Activation Profile (BEAP) tests, and the outcomes obtained from them, qualify as "testimonial character" and fall under Article 20(3) of the Constitution. The Court noted that two premises clearly define the parameters of "testimonial compulsion. The first is that, generally speaking, remarks made orally or in writing that represent an individual's firsthand knowledge of pertinent facts qualify as "personal testimony" and are thus prohibited by Article 20(3).

¹² Ibid.

¹³ AIR 1961 SC 1808.

In State of U.P. v. Ritesh Sinha-

The questions were whether a voice spectrographic test conducted without the subject's consent violates Article 20(3)¹⁴ of the Constitution, and if not, whether a magistrate has the authority to order someone to undergo a test of this kind without the subject's consent in the absence of a statute or inherent authority under the terms of the Criminal Procedure Code 1973 (Cr. P.C.). The Court determined that administering the test would not conflict with Article 20(3) of the Constitution, as previously decided by the Supreme Court in *Selvi*.¹⁵

III. DNA TEST PROFILING AND PRIVACY RIGHTS

The Fourth Amendment of the United States Constitution expressly shields every person from arbitrary searches and seizures of themselves, their homes, and their papers. In *Wolf v. Colorado*⁸², the US Supreme Court noted via Frankfurter J. that: Protecting one's privacy from police arbitrary fundamental to a free society, as the Fourth Amendment states. As such, it is protected against state authority by the Due Process Clause since it is implied in the idea of orderly liberty. Therefore, it was not necessary to cite recent historical commentary to denounce knocking on someone's door based only on the authority of law enforcement, regardless of the time of day or night, as this was incompatible with the fundamental constitutional document and the historical understanding of human rights held by the English-speaking peoples. We, the state, formally authorise such police invasions of privacy. That is in violation of the Fourteenth Amendment. The widespread use of obsessive scientific tools like DNA profiling has sparked serious worries about unchecked police power in the management of the criminal justice system. This worry is well-founded because the scientific method violates the right to silence, which is essential in acting as a deterrent for those who are guilty. An analytical discussion of the role that value-free scientific technologies play in the diminution of civil liberties is necessary in order to recreate the concept of justice.

When biological samples are obtained by accident or without the targeted accused or suspected person's informed consent, issues occur. Every person has the right to choose how to use every single tissue in their body, which is the source of this conflict. The state is now required to defend his right to life and personal freedom as a result. DNA profiling is an unjustified intrusion on people's personal integrity, according to this notion of individual autonomy. When genetic material obtained through a legal process is used for DNA profiling, no problem arises—individual agreement is essential. The goal of the criminal code must be to enable

¹⁴ Ibid.

¹⁵ AIR 2010 SC 1974.

everyone to live their life without having to worry about causing harm to others or their property. The three interests—those of the accused person, the victim and their family, and the general public—must be rationally balanced by the court. The European Council's recommendation does not prohibit the use of coercion to obtain DNA samples for analysis; rather, it just demands complete respect and doesn't go against the fundamental idea of personal integrity and dignity. Forcible and non-consensual DNA testing are the two main problems with DNA testing.

In the case of *Kharak Singh v. State of Uttar Pradesh*¹⁶, a six-judge panel upheld a similar conclusion, noting that while the petitioner's learned counsel suggested that Article 21 should be considered relevant in this particular context, the right to privacy is not a guaranteed right under our Constitution. As a result, tracking an individual's movements, which is essentially an invasion of their privacy, does not violate a fundamental right protected by Part III.

In *Ram Jethmalani v. Indian Union*- The Supreme Court decided that the right to privacy is an essential component of the right to life after delving deeply into the issue.

In the case of Justice *K S Puttaswamy (Retd.) v. Union of India*¹⁷, the Supreme Court addressed the issue of the Aadhar card (UIDAI) and noted that there have been conflicting rulings on the subject. However, the law established in *M P Sharma* and *Kharak Singh* would deprive the fundamental rights protected by Article 21 of their strength and vitality if taken literally and enacted into law. In order to receive authoritative legal interpretation on the subject.

IV. CONSTITUTIONAL AND LEGAL PROVISIONS REGARDING DNA TEST PROFILING AND LEGISLATION

India's Constitution is the fundamental legal a document from India. It provides basic rights to safeguard people's human rights and fundamental freedoms, based on Part III. The Constitution's Article 20(3) shields anyone from testifying against themselves. This exemplifies the constitutional embargo's protection against coercion to self-incriminate. Moreover, unreasonable interference with a person's life or personal liberty is forbidden by Article 21. Taking into account these clauses, DNA profiling has proven to be effective and is now allowed under Articles 20(3) and 21 of the Constitution, in addition to the Golden Triangle Rule that was established in the *Maneka Gandhi* case. Standards need to be fulfilled. The Code of Criminal Procedure (Cr.P.C.) Sections 53 and 53-A set the legal foundation for the DNA profiling of people criminal inquiries. According to Section 53(1), the defendant's girlfriend's

¹⁶ 1963 AIR 1295.

¹⁷ AIR 2017 SC 4161.

DNA profile will only be created upon the police's request. Additionally, Section 53A permits DNA profiling of rape suspects. The aforementioned part essentially reinstates section-53(1)'s legal regulations, which are specifically directed towards the rape accused. DNA profiling of a defendant under the CrPC does not violate Article 20(3) of the Constitution because it does not amount to coerced self-incrimination. The Indian Evidence Act, 1872, specifically states in Sections 45 to 51 that expert testimony may be admitted as significant facts in court. DNA profiling is legally recognised and admissible in Indian courts under the Code of Criminal Procedure and the Code of Evidence, although these two laws don't offer a sufficient framework. Although the court's legal ruling has deemed DNA profiling relevant as expert opinion, it is still necessary to incorporate evidence of DNA profiling explicitly relevant as expert opinion. DNA profiling should be considered conclusive evidence, according to a strong recommendation made by *Dr. V.S. Malimath* for the insertion of an amendment in the Evidence Act.

(A) Law Commission's Recommendations:

In its 271st report of 2017, the Indian Legal Commission suggested that particular laws be enacted to control DNA profiling in India.¹⁸ The subtitle is "Human DNA Profiling - A Bill Concerning the Use and Regulation of DNA Based Technologies". The research suggested enacting specific DNA laws that would control and restrict the creation of human DNA profiles, including standards and quality assurance, exclusively for legitimately intended uses. The potential misuse of her DNA profile for human benefit has proven to be harmful to society. It followed that specific legislation was required to stop these abuses and that simply amending the Penal Code would not be sufficient. Therefore, the paper suggested that DNA profiling laws should make sure that contemporary DNA profiling methods are controlled and restricted to the legal reasons. A draft bill pertaining to the regulation of DNA technology was approved by the Lok Sabha in 2018, but it was not implemented because of the assembly's dissolution. The law was reintroduced in 2019¹⁹ following the Lok Sabha's reconstitution, however in 2023, it was declared unconstitutional by the legislature.

V. CONCLUSION

India, as we all know, operates under a hostile system. There are three primary components that make up the entire system. The prosecutor's office is the second, the investigation agency is the first, and the court is the third. On the other hand, the criminal justice system has come under

¹⁸ Law Commission Report (n 39) Ch. 1 para 1.9.

¹⁹ DNA Technology Regulation Bill, 2019.

fire for its sluggishness in completing investigations and trials. Many endure years of suffering due to a lack of supporting documentation for their claims. Scientific research methods can be highly helpful in some situations. A number of police-relevant discoveries are made based on information obtained from suspects who have been exposed to forensics, DNA test profiling, and criminal execution procedures. These suspects supply significant information regarding crimes. According to Professor N. R. Madhmenon's National Criminal Justice Policy, physical evidence—rather than merely subjective testimony—gathered by scientific means ought to be admitted in court. The Malimath Commission suggested that defendants be given more opportunities to participate in investigations. As a result, forensic testing will be incorporated into the investigation process more and more. Tracking down and identifying criminals is one of the biggest challenges in criminal law, but scientific testing has made this process much easier. Even while a scientific analysis might not be enough to prove a case, it can be used as a guide to help prosecutors and police make the proper decisions and gather evidence. It is necessary to adapt current investigations and investigating procedures in compliance with current legislation and police law in order to achieve the same level of advancement. Some of the difficulties in applying the scientific method can be overcome with further study in this field. Thus, in general, a forensic investigation gathers material that has been recognised, compares it with the procedure, and ultimately generates a legally-applicable result. Recently, the Indian government approved a web application. In this online application, the offender's database, also referred to as *NAFIS—National Automated Finger Print Identification System (2022)*—serves as a central information repository for data from all states and union territories and generates a 10-digit unique ID number for his fingerprint (NFN). It is the National Crime Records Bureau (NCRB) that develops NAFIS. Madhya Pradesh was the first state in the nation to use NAFIS to identify a deceased person in April.

In light of the conversation above, the writers are submitting the following Suggestions: -

- 1.** The use of DNA technology in the administration of criminal justice should be governed by particular legislation.
- 2.** Under the Evidence Act of 1872, the admissibility of DNA evidence ought to be acknowledged as an expert opinion.
- 3.** According to Article 21 of the Indian Constitution, the right to privacy is a basic freedom. When applying DNA profiling in criminal justice administration, it is important to make sure that the right to privacy is respected throughout the biological sample collecting and DNA profiling processes.

4. District-level investigating authorities need to be constituted, well trained, and provided with scientific tools.

5. To guarantee openness and prevent the exploitation of data connected to DNA It is necessary to set up an appropriate monitoring organisation for the gathering, storing, processing, and disposal of DNA data.

6. The proposed law should establish a forensic science expert, investigative wings, laboratories, a DNA bank, and an effective, transparent, and accountable system for the collection, storage, and removal of DNA samples in order to ensure that DNA technology is used appropriately in criminal justice administration.
