



EXPERT OPINION AND FINGERPRINT EVIDENCE

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OVERVIEW AND SCOPE OF RESEARCH

Expert testimony is relevant under Section 45 of the Indian Evidence Act, 1872 (hereinafter referred to as “**Evidence Act**”) and where the Court has to form an opinion upon a point as to foreign law, or of science, or art, or as to identity of handwriting or finger impressions, the opinions upon that point of persons specially skilled in such foreign law, science or art, or questions as to identity of handwriting, or finger impressions are relevant facts.¹

The present research project will involve an analysis of the Expert Evidence in relation to fingerprints as evidence and we will analyse various facets of the use of fingerprints as evidence against the accused party. The present analysis includes its conflict with the fundamental rights, the proof of fingerprints expert’s data and opinion, the probative value of the fingerprint evidence and fingerprints in relation to foundation of police identification. Before proceeding with the analysis in depth, we will briefly give an overview of the research in this introductory chapter.

Firstly, the evidence of finger print expert falls under the category of expert evidence under Section 45 of the Evidence Act. In this perspective, in order to bring the evidence of a witness as that of an expert it has to be shown that he has made a special study of the subject or acquired a special experience therein or in words that he is skilled and has adequate knowledge of the subject. However, an expert is not a witness of fact and his evidence is of advisory character.

The duty of an expert witness is to furnish the judge with necessary scientific criteria for testing the accuracy of the conclusions so as to enable the judge to form his independent judgment by the application of the criteria to the facts proved by the evidence of the case. The law of evidence is designed by Sir James Stephen to ensure that the Court considers only that evidence which will enable to reach a reliable conclusion.² Accordingly, the first and foremost requirement for an expert evidence to be admissible is that it is necessary to hear the expert evidence and there is a need to hear an expert opinion where an medical issue is to be settled. Further, other requirements for admissibility of expert evidence are: -

- a. That the expert must be within a recognised field of expertise.
- b. That the evidence must be based on reliable principles, and
- c. That the expert must be qualified in that discipline³

¹ 1 JETHMALANI ET. AL, THE LAW OF EVIDENCE 663 (2nd ed. 2016).

² *Id.* at 671.

³ ALAN MERRY ET. AL, MEDICINE AND THE LAW 178 (Cambridge Univ. Press 2001).



The evidence given by a Finger Print expert need not necessarily be corroborated, however the Court must satisfy itself as to the value of the evidence of the expert in the same way as it must satisfy itself of the value of the other evidence.⁴ While appreciating the evidence tendered by the expert, the Court will also consider the credibility of the expert. For instance in *Krishna Mohan*,⁵ this question pertaining to the credibility of the fingerprint expert arose. The Court observed that the expert was working in the Fingerprint Bureau as a Fingerprint Researcher since 1971. Further, he had passed the All India Fingerprint Expert Examination conducted by the Central Fingerprint Bureau and had deposited in a catena of cases as an expert. Considering these qualifications and service record, the Court held that the expert was duly qualified and therefore his opinion could not be discarded.⁶

If the fingerprint evidence is obtained in a suspicious manner and if some doubt persists as regards the nature of the evidence, the accused cannot be convicted since the condition precedent of credibility of the evidence is vitiated and therefore the nature and quality of evidence and the manner in which the evidence is obtained becomes essential.⁷

The authors state that it is a well settled principle that the evidence of a finger print expert is not substantive evidence but it can certainly be used to corroborate items of

substantive evidence.⁸ In *Musheer*,⁹ the accused who were hired criminals shot dead the deceased at point blank range and his body fell half inside and half outside the car. However, there was no evidence to show that he had any reason to touch the car and that too with the ring finger. Accordingly, the evidence of fingerprints on the car ceased to have any evidence.

In this introductory overview of the fingerprint evidence, the authors will proceed to analyse a significant question i.e. whether the taking of fingerprints of the accused violates the fundamental rights of the accused under Article 20 (3).

CHAPTER I: FINGERPRINTS AND FUNDAMENTAL RIGHTS

The principal issue with regard to obtaining fingerprints is whether the same infringes the fundamental rights of the accused party under Article 20 (3) of the Constitution of India and whether it compels an accused to be a witness against himself.¹⁰ Section 73 of the Evidence Act empowers a Court to direct any person including an accused present in court to allow his finger impressions to be taken.¹¹ However, notwithstanding Section 73, several arguments were raised before the Courts that there can be no law which authorises a Court to ask the accused to do something which may have a tendency to incriminate him and

⁴ *Emperor v. Fakir Mahomed*, (1935) 38 Bom LR 160.

⁵ *State v. M. Krishna Mohan*, AIR 2008 SC 368.

⁶ *Id.*

⁷ *Chandiran v. State of Kerala*, AIR 1990 SC 2148.

⁸ *Musheer Khan v. State of Madhya Pradesh*, AIR 2010 SC 762.

⁹ *Id.*

¹⁰ RAO ET. AL, EXPERT EVIDENCE 1297 (4th ed. 2010).

¹¹ The Indian Evidence Act, 1872, § 73, No. 1, Acts of Parliament, 1872 (India).



further it was also submitted that such a practice is inconsistent with the principle of a fair trial.

Therefore, before examining the evidentiary value of an expert as to fingerprint evidence, the very obtaining of the fingerprints has to be justified and tested on Constitutional Principles. This issue arose as early as 1952 when the Travancore- Cochin High Court observed that “the prohibition of compelling a man in criminal court to be a witness against himself is the use of physical or moral compulsion to extort communications from him, not an exclusion of his body as evidence when it may be material”.¹²

Thereafter, after this decision, various High Courts including the Punjab, Calcutta, Mysore and Rajasthan High Courts also held that the taking of thumb or finger impressions if an accused does not violate Article 20 (3) of the Constitution. However, the Madhya Pradesh High Court, the Orissa High Court and the Allahabad High Court held that the obtaining of thumb impressions and fingerprints from an accused violate Article 20 (3) of the Constitution and cannot be held to be valid within the salubrious principles of Constitutional Law. In view of this uncertainty, the burden was on the Supreme Court to authoritatively settle this issue. Accordingly, an 11 Judge Bench authoritatively laid down the controversy and settled the position of law which holds good presently and held that taking of thumb, finger and foot impressions is not hit by Article 20 (3) and is justified.¹³ Therefore, the taking of thumb impressions

and fingerprints is justified. Having settled the obtaining of fingerprints, the authors will now analyse the probative value of fingerprint evidence.

CHAPTER II: PROBATIVE VALUE OF FINGERPRINT EVIDENCE

The Probative Value of the Fingerprint Expert’s evidence must have same value as the opinion of any other expert such as medical officer.¹⁴ In each case, the evidence is only a guide to the Court to direct its attention to judge of its value. The Court is at liberty to use its own discretion and come to a conclusion either in affirmance or differing from the view taken by the expert. However, in addition to this, every case must depend on its own circumstances.¹⁵

While submitting his report involving the fingerprints evidence, the fingerprint expert must state the particular marks used by him as the basis of his inference and he will have to state as to whether the marks were distinct and numerous enough to afford an infallible inference.¹⁶ Based on this report, the Court of Law has to direct its attention mainly to two aspects based on which the probative value can be ascertained i.e.: -

- a. The Question of Similarity between the fingerprints found on the spot where the incident occurred and the fingerprints of the accused. This aspect is purely a question of fact and there is nothing contained to deter the Court from considering this evidence as relevant.

¹² State v. Parameswaran, AIR 1952 TC 482.

¹³ State of Bombay v. Kathi Kalu Oghad, AIR 1961 SC 1808.

¹⁴ Public Prosecutor v. Virammal, AIR 1923 Mad 178.

¹⁵ *Id.*

¹⁶ RAO, *Supra* note 10 at 1316.



- b. The Question as to whether it is possible to find the thumb impressions of two individuals corresponding to one another and is similar. This issue is well settled and it is difficult to find resemblances between prints of two individuals.¹⁷

Upon determination of the two aforesaid questions, a Court is not bound to accept the opinion of the fingerprint expert without itself being satisfied as to the reasons which led to the opinion of the expert and the Court will have to apply its own mind and eyes to the evidence and to the impressions and verify the results submitted to it by experts.

However, in a situation where the Court examines the fingerprint evidence carefully and satisfies itself that there could be no mistake, bearing in mind that the expert has opined that the two fingerprints match, the Court can convict an accused on the basis of this evidence.¹⁸ This test was applied in *Ayyapan*¹⁹ where the expert had given evidence that the thumb impression found on the various accounts and vouchers do not pertain to any of the fingers of the alleged borrowers and were definitely the impressions of the accused. However, his statement before the Magistrate about the identity of the disputed impressions with the undisputed fingerprints of the accused gave no reasons for such an opinion and his conclusion was never justified. In this case, the expert merely filed a list of common characteristics and stated no reasons. Yet, the Court appreciated the evidence and the accused was convicted. When the matter

went in appeal to the High Court, the High Court observed that the lower Court had failed in its duty and accordingly, the accused was acquitted.²⁰ Therefore, the conclusion from this case is that the expert opinion must contain sufficient reasons justifying each and every view for the Court to appreciate as evidence.

As far as the question of corroboration was concerned, the law was unsettled and uncertain in the earlier days. In 1923, the Madras High Court held that the evidence of the fingerprint expert need not necessarily be corroborated and it can be appreciated without corroboration.²¹ However, this approach was subsequently overruled by a subsequent decision in 1936.²² Here, the Court observed that corroboration is required in order to appreciate the evidence of a fingerprint expert. Therefore, one thing is very clear and the law has been settled down i.e. this evidence of an fingerprint expert is not of substantive evidence and such evidence can only be used to corroborate some items of substantive evidence which are otherwise on record.²³

Therefore, the authors conclude that a Court is not bound to accept the evidence of an expert and only after corroboration the Court may consider appreciate evidence. Further, upon corroboration, the Court must satisfy itself that the finger impressions of the accused and those found on the articles at the scene of crime are identical. If required,

¹⁷ JETHMALANI, *Supra* note 1 at 664.

¹⁸ RATANLAL ET.AL, THE LAW OF EVIDENCE 353 (25th ed. 2016).

¹⁹ *Ayyapan v. State of Kerala*, 2005 CrLJ 57 (Ker).

²⁰ *Id.*

²¹ *Public Prosecutor v. Virammal*, AIR 1923 Mad 178.

²² *Fakir Mahomed Ramzan v. Emperor*, AIR 1936 Bom 151.

²³ *Musheer Khan v. State of Madhya Pradesh*, AIR 2010 SC 3762.



the Court should summon the expert in Court and ask the expert to justify his findings. Since the burden of proof vests on the prosecution, unless the Court is satisfied that the expert opinion is correct, the Court will most likely release the accused. Further, a thorough and scholarly report on fingerprint inquiry of 14 December 2011 in the United Kingdom cautioned against any complacency in placing reliance on the science of fingerprints. It was recommended that: -

- a. Fingerprint evidence should be recognized as opinion evidence, not fact, and those involved in the Criminal Justice System need to assess it as such on its merits.
- b. Fingerprint comparison continues to serve as a valuable source of evidence but its practice can be improved, at the same time it has to be recognised that it is not realistic to expect a zero error rate and therefore the reliability of fingerprint evidence depends on a proper appreciation by fingerprint examiners, and the legal community, of the limitations of the discipline and in particular the subjective nature of the judgments that underlie a fingerprint opinion and the many variable factors of relevance to it.
- c. Examiners should discontinue reporting conclusions on identification or exclusion with a claim to 100% certainty or on any other basis suggesting that fingerprint evidence is infallible.²⁴

Accordingly, notwithstanding the fact that fingerprint evidence has a high probability of being accurate and certain, and that it will consequently lead to the attainment of

justice as an end, the chances of an error cannot be understated and therefore, the Courts should be careful whenever the prosecution relies its case solely on fingerprint evidence without any corroboration. The authors agree with the opinion of the settled law laid down by the Supreme Court and hence state that corroboration by other witnesses or through other evidence is essential for admissibility of fingerprint evidence.

Now, the authors will analyse the science of fingerprints and its connection with the Evidence Act.

CHAPTER III: THE SCIENCE OF FINGERPRINTS AND THE EVIDENCE ACT

The Actual Founder of the present system of identification by fingerprints is Sir Francis Galton. He extensively proved the individuality and permanence of such prints and also devised a scheme of classification which enabled a particular print to be at once selected from however large a collection. Thereafter, this system of Fingerprints was further simplified and improved by Sir Edward Henry of the Scotland Yard, London.

The Science of Fingerprints depends upon the fact that the terminal phalanx of the finger is covered with ridges which form definite curved patterns and that these are absolutely individual and are unchanged by time.²⁵ The ridges are said to be arranged with an infinite variety of details and from the cradle to the grave their arrangements and patterns never change. The ridges on the fingers and thumbs with the details of their

²⁴ V NAGESWARA RAO, THE INDIAN EVIDENCE ACT 460 (2nd ed. 2015).

²⁵ RAO, *Supra* note 10 at 1314.



arrangements are never wholly repeated in the case of fingers of any other person. Therefore, the fingerprints afford a more conclusive test of identity than any other bodily feature.

Where two prints resemble one another even in minute details and contain no point of disagreement, an irresistible conclusion arises that they belong to the same person. Therefore, in this background Sir James Stephen made evidence tendered by an expert as to fingerprints admissible. The fundamental principles of fingerprints were also recognised by the Kerala High Court as:

- a. A fingerprint is an individual characteristic; no two fingers have yet been found to possess identical ridge characteristics.
- b. A fingerprint will remain unchanged during an individual's life time.
- c. Fingerprints have general ridge patterns that permit them to be systematically classified.²⁶

Further, this aspect regarding uniformity of fingerprints is also statistically supported. Experts have opined that the chances of a single finger's marks showing the same pattern as another's are as to about 64 Millions. Further, between birth and death of a person, there is absolutely no change in 699 out of 700 numerous characteristics of the markings of the same person such as can be impressed by him whenever it is desirable to do so.

Nigel Morland opined that out of the hundreds and thousands of prints taken in

Great Britain alone, there has never been a duplicate of the same.²⁷ Further, Balthazard's simple formula on points of resemblance fingerprints shows that to find two points of resemblance in two fingerprints, 16 would have to be examined. Enlarging on this, for eight points of resemblance, 65, 536 prints would have to be examined, for 12 points of resemblance, 16, 777, 216 and for 16 points of resemblance 17,179, 869, 184 prints would have to be examined. Accordingly, the fingerprints found at the site of a crime become relevant and it is a rare situation that the fingerprints of two individuals are same.

There was an entirely irresponsible belief among some criminals that alterations can be made by injections of a certain drug into the fingerpads. However, this belief was exposed when despite this act of 'expert' criminals to get away scot free, they were exposed by the experts. American Criminal John Dillinger had his fingers treated by surgery when he underwent extensive plastic operations to avoid detection. However, the fingerprints were intact in pattern and did not affect the identification in any form. This adds more reason for the appreciation of fingerprint evidence and it has been conclusively proven that the marks will stay the same even after prolonged duration.²⁸

The fingerprint evidence is infallible and its certainty is arraigned by methods basically simple and direct. In this regard, the only difficulty in the system is associated with the keeping of records and the routine of tracing them. The difficulty is inherent in any system in which the keeping of a large

²⁶ Johan v. State of Kerala, (1987) 2 KLT 544 (Ker) (DB).

²⁷ *Id.*

²⁸ RAO, *Supra* note 10 at 1314.



amount of data is necessary. Lastly, unlike certain other sciences, fingerprints do not dispute one another in open Court, since fingerprints is not a debatable object like a forged signature, nor does it contain the differences which might exist in the photographs of the same person taken at different circumstances and at different ages.

The Science of identifying thumb impressions is an exact science and does not admit any mistake or doubt. Moreover, the identification of finger impressions with the aid of a magnifying glass is not difficult, particularly when the photographs of the latent and patent impressions are pasted side by side.²⁹ However, the Courts of Law cannot play the role of a fingerprint expert, but must depend on the clear evidence of the expert which is furnished.

Therefore, in this light the authors opine that the science of fingerprints is inextricably linked with the method of obtaining evidence and which is why Stephen made fingerprint evidence admissible under the contours of the Evidence Act. In the present day, police maintain fingerprint records of all criminals and due to technological improvement; this science has received a greater importance.

Suggested Impact of the Aadhar Scheme, 2016

In India, due to the scheme of Aadhar, the biometric information including fingerprint impressions of all people enrolled under Aadhar exist with the Government. If the

police find fingerprints on the crime scene, they ideally should be allowed to be checked with the Aadhar Database. This will not only lead to a speedier investigation but will also lead to greater chances of the guilty party being arrested and convicted for his unlawful acts. However, the Aadhar Act, 2016 prohibits sharing of the biometric information with any person or institution.³⁰ This prohibition is subject to the exception i.e. the order of a court or an order made in the interest of national security by an officer not below the rank of Joint Secretary to the Government of India.³¹

Therefore, the possibility of sharing relevant information with the permission of the Court or with the order of the Joint Secretary in high profile cases in the very least if not all cases must be examined. If this sharing is successful, this benefits of this linking are widespread and a major tool to achieve fair and speedy investigation against the accused. However, this will have to be tested on the contours of the recent judgment of the Apex Court on privacy.³²

Notwithstanding the test of privacy, the authors opine that the greater benefits of the linking of fingerprints found at the Crime Scene which correspond to the rule of law must prevail over so called individual privacy. Accordingly, the authors opine and recommend that the Police and the prosecution may choose to match the fingerprints with the records of Aadhar if the suspect cannot be detected either by

³⁰ The Aadhar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act, 2016 §29, No. 18, Acts of Parliament, 2016 (India).

³¹ *Id* at § 33.

³² Justice K.S.Puttaswamy & Ors. v. Union of India & Ors., 2017 (10) SCALE 1.

²⁹ WOODROFFE ET.AL, THE LAW OF EVIDENCE 2261 (19th ed. 2013).



requesting the Court or through the order of the Government of India.

CONCLUSION AND RECOMMENDATIONS

Identification by fingerprints is one of the oldest methods but the science has become more sophisticated with the use of the technology developed in biometrics. Apart from the usual physical examination of fingerprints, optical, ultrasound and computer aided- comparisons have come into vogue that has enhanced the reliability of fingerprint evidence immensely. In India, 88.2 % of its population which somewhere translates into 1.12 billion Indians have been covered under the Aadhar scheme which also involves recording of fingerprint evidence.

The authors opine and recommend that the police and the investigative authorities should place greater reliance on the fingerprints and link them with the database of Aadhar. This linking will not only lead to speedier investigation, but it will also lead to higher probability of accuracy. Moreover, the issue becomes further significant since the very scheme of Aadhar and its Constitutionality is currently pending before the Supreme Court. Without pre-empting as to which way the decision shall go, the authors believe that the linking of Aadhar will become more significant only if there is corroborative evidence tendered by the prosecution in the course of the trial. In absence of any corroborative evidence, there is a likely chance of an innocent person being harshly subjected to penalty for an offence in which there was no such involvement. Therefore, corroboration to prove fingerprint evidence is must.

The Authors also opine that the experts who draft the fingerprint report to be submitted to the Court must ensure punctilious adherence to the requirements necessitated and must include them in the report accordingly. This also includes a clear statement as to the likelihood of the fingerprints being that of the accused in addition to a mere analysis on the comparison of the two fingerprints found. The accused should not be allowed to get away scot- free merely due to lacunae on the part of the expert and it is this very reason that experts need to be extremely careful while preparing their report.

Lastly, in light of the recent judgment on privacy, the Constitutionality of fingerprint evidence is likely to be raised before the Supreme Court. If the same is struck down on the test of privacy, it will be a great setback to the law enforcement agencies. In the event that it survives the test of privacy, it will be largely beneficial in investigation. At this point of time we can only wait and watch.
