A Study of the Evidentiary Value of Forensic Handwriting Analysis Expert Opinions

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ABSTRACT

Forensic linguistics is a branch of linguistics that applies the principles of linguistics to solve legal issues. Jan Svartvik, the father of forensic linguistics, was the first to apply his knowledge of linguistics to solve a crime, which gave birth to the discipline of forensic linguistics. Though there are numerous applications of forensic linguistics in criminal investigation, this paper deals with 2 essential applications a) handwriting analysis and b) author attribution with special reference to the ‘Timothy Evans’ Case and the ‘Devil strip’ case. Forensic linguistics and its application have been heavily criticized for being abstract, vague and very subjective in nature making its application very unpredictable. But, one cannot deny the various instances in which it has helped the courts in judging cases. Thus, the paper aims to analyze the position of handwriting expert opinion as evidence in India with reference to various case laws.

Keywords: Handwriting expert, Forensic linguistic, Evidentiary value, and Expert opinion.

I. INTRODUCTION

Linguistics is the scientific study of human languages. Forensic linguistics is the branch of linguistics that applies the scientifically accepted principles of linguistics to issues of law and legal evidence. The process of determining whether or not one is guilty of crime through an analysis of the words he speaks is a brief but accurate representation of the field of forensic linguistics.

Few of the most frequently used applications include the following:

- Voice identification.
- Dialectology: to identify an individual by analyzing his dialect and manner of speaking.
- Language analysis: Identification of a speaker’s dialect and native language.
- Discourse analysis: analyses conversations to figure out who was the first person to

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introduce an idea. It is primarily used in criminal cases.

- Author identification, aims to identify the writer of a given text or document.

Forensic Linguistics has been used extensively in the legal field. Though there are many uses of forensic linguistics this paper shall exclusively focus on handwriting analysis and forensic authorship attribution and its evidentiary value in court.

(A) Research Problem

Forensic handwriting analysis is neither considered a science nor an art in the truest of sense. This is primarily attributed to the extremely subjective nature of the field. Though handwriting analysis can aid the court in determining guilt and has been used in many cases for the same, the evidentiary value of such handwriting expert opinions needs to be further clarified.

(B) Research Question

Whether forensic handwriting analysis expert opinion can be considered as substantial evidence to determine guilt of an individual?

(C) Hypothesis

Forensic handwriting expert opinions cannot be considered substantial evidence.

(D) Research Objectives

1. To discuss the various uses of forensic linguistics particularly focusing on handwriting analysis and authorship attribution

2. To examine the position of handwriting expert opinions as evidence in India

(E) Literature Review


In this paper the authors discuss the use of forensic handwriting analysis in authorship attribution using various linguistic cues in documents. The author argues that though this is a very useful tool there are growing concerns regarding the validity of such attribution stating that it is too abstract and subjective in nature. The author tries to lay these fears to rest and provide optimism by discussing the impact of computational and data analytic tools that can not only compare millions of documents at once but also emit the problems of human fallacy hence, being very accurate in their prognosis.

In this paper the author Malcolm Coulthard (who is a forensic linguist himself) discusses how authorship is determined using forensic linguistics. The author studies various cases that have come before the court and proceeds to examine how the handwriting analysis experts aided the court and police investigation. The author then goes on to study the various methods employed by forensic linguists in their practice, the tools they use and the things they look for while determining similarity between two samples or documents.


In this paper the authors discuss the importance of language in the legal system not only when it comes to interpreting the law but also when it comes to deciding matters that come before the court. The authors discuss the field of forensic linguistics, its scope and its application and then proceed to show just how important of a tool it is. From clarifying ambiguous phrases in contracts to solving murder mysteries with ransom notes, the authors provide multiple examples of how forensic linguistics has been used. This paper studies 6 criminal cases that have been solved using forensic linguistics.

State v. Kandhu Caharan Barik, 1983 Cr LJ 133

The Court opined that the science of handwriting experts is not perfect. The opinion given by a handwriting expert has to be examined and tested. But the reasons given by him are not the deciding factor. The duty of the expert is to provide the Judge with the necessary scientific criteria for testing the precision of his conclusion which will enable the Judge to form his judgment.

Fakhruddin v. State of Madhya Pradesh, AIR 1967 SC 1326

In this case, the Court looked into the evidentiary value of the opinion of handwriting experts and stated that it would be precarious to decide conviction merely based on the evidence of a handwriting expert. It is necessary that the courts must always look into whether such opinion is supported by other direct or circumstantial evidence or not before acting upon it.
(F) Existing Legal Scenario

In the appeal case of Padum Kumar v. State of Uttar Pradesh\(^1\), the appellant, Padum Kumar was working as a postman in the Indira Nagar Post office in Lucknow. On 9th April, 1992 M.L. Varshney sent a registered envelope from Allahabad to K.B. Varshney, the complainant. This envelope contained 4 notes of rupees 5,000 each i.e., a total amount of rupees 20,000. But the envelope never reached the complainant and so he filed a complaint before the Postmaster. Later it was found that a person named “Mohan” has received the envelope as per the registry. The complainant’s son’s name is Devesh Mohan. They both went to the post office and saw the signature which was signed as “D. Mohan”. On seeing this the son denied that the signature was his and so a case was registered. The disputed signature was sent to a forensic laboratory.

The report from them stated that the person who made the specimen signatures has also made the disputed signature. But 2 other experts were also consulted and both stated that it was not the same person. The trial court convicted the appellant of forgery after examining the evidence along with the reports of the handwriting experts. The appellant challenged this conviction in both Additional Chief Judicial Magistrate and High Court where his conviction was upheld. So, he went for appeal in the Supreme Court. His counsel argued that conviction cannot be based solely on expert opinion. Another argument made by him was that the 2nd expert had died before the trial and his son was allowed to give his opinion as he was familiar with the expert’s work, and so this opinion should not be considered as the expert was not alive to be examined anymore. But the court agreed with the High Court on the point that, even if not based solely on expert opinions, the appellant was the only person with knowledge and he should have been able to show who had signed the registry falsely, if he had not forged it himself. Thus, the Supreme Court also upheld his conviction, but reduced his sentence.

(G) Scope and Objective

The objective of this paper is to analyze the position of handwriting expert opinion as evidence in India with reference to various case laws. Though there are many uses of forensic linguistics, this paper solely focuses on handwriting analysis and forensic authorship attribution and its evidentiary value in court.

(H) Methodology

This paper is a doctrinal research which employs primary sources like books and case laws, as well as secondary sources like journal articles.

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\(^1\)Criminal Appeal No. 87 of 2020 (Arising out of SLP (Crl.) No. 6990 of 2018).
II. CONTENT

The first instance of the use of forensic linguistics in the field of law is seen in the Timothy John Evans case solved by Professor Jan Svartvik. In the Timothy John Evans Case (1950), Timothy John Evans went to the police station in South Wales and said that he had “disposed of” his wife. The police initiated an investigation and Evans was taken into custody. He made four statements to the police, all of which contradicted each other. With no other suspects Evans was convicted of the murder and hanged.

In one of his statements Evans had mentioned a man named John Christie, claiming that John Christie was the murderer. But because of the contradictory nature of all his previous statements this was overlooked. 3 years after Evans death it was revealed that John Christie was a serial killer, which brought up Evan’s case came before the Court again.

Professor Svartvik analyzed the grammar used in the recorded statements, found out that the police had transcribed Evans’s oral statements based on what they understood instead of writing them verbatim, the portion of the statements that incriminated Evans too was found to contain the opinions of the police rather than a verbatim transcription. After this revelation the court pardon Evans.

(A) Handwriting Analysis

The most traditional use of forensic linguistics is that of handwriting analysis. Though handwriting analysis is in itself a different and a very comprehensive field of forensics it is a technique that is commonly used in forensic linguistic analysis.

Handwriting analysis is usually done through comparing various samples, it is necessary that a large number of samples be analyzed to show the examiner variations in an individual’s handwriting. A handwriting analysis can give way to certain conclusions:

The below five points can be conclusively established, after an analysis:

a. Positive Identification – when the suspect’s sample matches that of the document in question to rule out all possibilities of other possible writers.

b. Probable Identification - there are a combination of similarities pointing to one writer, however, this alone cannot establish validity of the evidence, and it leaves only theoretical possibility of another writer.

c. Unable to Determine - there are not enough of exemplars to reach a conclusion.
d. Probable Elimination - the exemplars and the suspects’ samples do not match; the suspect cannot be excluded from investigation.

e. Positive Elimination - the suspect's sample and the exemplars do not match at all, eliminates the suspect as the author.

(B) Forensic Authorship Attribution

Authorship attribution refers to identifying the author of certain documents by analyzing linguistic clues. Authorship attribution is generally used in cases where there is more than one potential author for a given text, it analyses the distinctive linguistic features of an individual author based on which the attribution is based. It studies the idiolect of a person i.e. the way a person writes or speaks which is heavily influenced by factors such as profession, geographic location, familiarity with the language etc. A famous case that was solved using forensic authorship attribution is the “devil strip” case. In this case a ransom note was left to the parents of an abducted teen. The note read that ten thousand dollars were to be put in a bad and put near the garbage can near the ‘devil strip’ on that road. ‘Devil strip’ refers to a strip of grass that is found between the sidewalk and the road, and only people from Akron, Ohio were known to use this word. Hence, Dr. Robert Shuy, a forensic linguist who was helping the police was able to identify that the suspect must be someone from that state and thus, aided the police to catch the culprit.

1. Sociolinguistic Profiling

Sociolinguistic profiling is a common feature of authorship attribution in which a linguist looks for linguistic clues in a given document to come to a general conclusion about the age, gender and regional background of the suspected author. For example, how the use of the word ‘devil strip’ which was common only to the people of Akron, Ohio gave clues to the police regarding the culprit, or how in the Timothy Evans case, Professor Svartvik was able to find what is known as ‘police speak’ or the use of language in a manner only attributed to people in that profession. The language and grammar used by policemen significantly differ from that of a common man which led Jan Svartvik to realize that the integrity of the recorded statements had been corrupted by the police recording their own opinions and perceptions of what the suspect had said which inevitably led to the conviction of Evans, an innocent man.

The above-mentioned cases bring up an important aspect of forensic linguistics - that it helps build the profile of an individual, not identify an individual.
III. ADMISSIBILITY OF FORENSIC HANDWRITING ANALYSIS IN COURT

(A) Position of Handwriting Expert Opinion as Evidence in India under Indian Evidence Act, 1872:

There are mainly 3 important sections of the Indian Evidence Act, 1872 which deals with admissibility of handwriting analysis in Indian Courts:

1. **Section 45:**

Section 45 of the Indian Evidence Act, 1872 discusses the position of the expert opinion. According to this section the opinion of an expert is admissible when it is related to matters regarding the sciences or arts, or any other particular field that an inexperienced person cannot form a proper judgement regarding it without such the help of an expert who has studied and is well versed in the field. The section does not lay down any particular standards that need to be obtained for an individual to be considered as an expert. Hence, it is for the judge to decide upon the competency of a witness as an expert, the judge determines whether the skill of an individual and his opinion offered is valid and enough to entitle him as an expert. This proves that an expert cannot act as a judge to decide the case in so far as his opinion and expertise goes. In the case of *Tomaso Bruno v. State of UP*\(^4\) it was held that the purpose of an expert witness was to only assist the court in reaching a final conclusion thereby showing that an expert opinion isn’t conclusive nor is it binding upon the court. It was remarked by the Supreme Court in the case of *Dayal Singh v. State of Uttaranchal*\(^5\) that the court cannot delegate its ability to pass judgement to any 3\(^{rd}\) party or expert, that the opinions of such experts must be treated like any other evidence.

In the case of *State of Himachal Pradesh v. Jal Lal and Ors*\(^6\) explained the functions of an expert.

a) An expert is a person who has special knowledge over a subject, who has made such a subject his study or his practice. He must show that he has special experience and knowledge over such a subject area.

b) The opinion of the expert is only advisory in nature and cannot be considered conclusive proof. They are to only aid the judge so that a judgement can be pronounced by the court independently.

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\(^5\) AIR 2012 SC 3046.
\(^6\) AIR 1999 SC 3318.
c) The credibility of such witness statements depends on the reasons, data and materials furnished by them in support of their argument.

2. Section 47:

According to this section, when the court has to formulate an opinion on the handwriting of a person, they can consider the opinion of a person who is familiar with the handwriting of such person as evidence. This section shows one of the ways to prove handwriting. The following methods may be used to prove the handwriting of a person:

a. By the evidence of the person who has written it.

b. By the evidence of a person who has witnessed the person, whose handwriting is being examined, write.

c. By the evidence of a person who is familiar with such handwriting either by receiving letters claimed to be written by such person or any other documents written by the witness to such person. For instance, in the case of Shankeappa v. Sushilabai7, a letter written by the husband to another woman admitting his marital status to her was questioned. Here the wife can be considered to be familiarized with the husband’s handwriting.

d. By the evidence of a handwriting expert who can compare the handwritings.

e. The court itself compares the document in question with other documents which are proved to be genuine to the satisfaction of the court.

f. The court can also ask any person present in the court to write any words or figures in order for the court to compare it to the handwriting or words or figures in the document alleged to have been written by such a person.

The witness does not have to express at first instance how he is acquainted or familiar with the handwriting. It is the opposing party that finds it out through cross-examination of the witness if he is not content with the testimony as it stands. The presiding judge can also allow the opposing advocate to cross-examine so that it becomes easier for the court as well to reach to a conclusion on sufficient materials regarding the proof of the handwriting.

The word “signed” in this section also includes signature by stamping. And the word “habitually” means usually. It does not denote the number of times the occasion occurs, rather it refers to the repetition or continuity of the occasion. In the case of Emperor v. Pondé8, it was

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7 AIR 1984 Kant 112.
8 (No. 2), (1925) 27 Bom LR 1031.
observed that a recordkeeper, who files the paper sent to him during the course of his employment, can testify regarding handwriting of a person whose papers he has previously filed, even if the number of papers filed may be less.

3. **Section 73:**

As per Sections 45 and 47 of the Indian Evidence Act, the court has to look into the opinion of others. But under Section 73, the court has the power to compare the writings on its own and formulate its own opinion. Section 45 deals with scientific comparison of writings, whereas Section 47 is based on familiarity from recurring observations and occasions. Thus, under both these sections, the evidence is just an opinion and the court have to be satisfied by such means as are open to conclude that the opinion may be acted upon. Apart from the opinions given by handwriting experts, the court can also form its own conclusion after comparing the disputed writings under Section 73. Generally, Section 45 is complementary to Section 73. Evidence of Handwriting Expert need not always be corroborated. It is the discretion of the Court whether to accept such uncorroborated evidence or not. In the case of *Lalit Popli v. Canara Bank & Ors*[^9], the Enquiry Officer and the Disciplinary Authority carefully considered the report by the handwriting expert and also looked at the documents to formulate their own conclusions.

**(B) Cases on Evidentiary Value of Forensic Handwriting Analysis:**

As shown by the discussions above, forensic handwriting analysis and authorship attribution can be very vague as it is heavily reliant on the subjective satisfaction of the person doing the analysis. In the case of *Ameer Mahammed v. Harkat Ali*[^10] it was held that an expert opinion can be rejected if it is based on an imperfect science, which again gives way to uncertainty regarding the position of handwriting analysis. As stated earlier, forensic linguistics does not serve to identify an individual and the same has been observed by the Kerala high court in the case of *MK Usman Koya v. CS Santha*[^11] in which it was stated that handwriting analysis merely gives rise to a probability and not certainty. In the case of *S. Gopal Reddy v. State of AP*[^12] The apex court has held that some types of expert evidence cannot be considered as conclusive proof and that they need to be corroborated. Handwriting expert opinions comes under this category. This position has been further substantiated by the Supreme Court in the case of *Ram Chandra v. State of UP*[^13] by stating that handwriting evidence needs to be supported by both internal and external evidence. That the inherent nature of handwriting evidence is insufficient

[^9]: Appeal (Civil) 3961 of 2001.
[^13]: AIR 1957 SC 381.
to result in conviction. In *Sashi Kumar Banerjee v. Subodh Kumar Banerjee*\(^\text{14}\) The apex court has held that handwriting evidence needs to be further corroborated by direct or substantial evidence as independently it cannot be taken as substantial evidence.

Forensic handwriting analysis is considered to be weak evidence by courts in many cases. In the case of *Alamgir v. State, (NCT) Delhi*\(^\text{15}\), a woman’s body was found in a room in the guest house where she used to stay along with her husband. Two slips were also found in that room. After examination of the slips, the experts stated that it was the handwriting and signature of the husband. The Supreme Court such statements from the experts could be relied upon only if there is other corroborative circumstantial evidence to support it.

In another case, the wife was shown the letters written by the deceased to his brother during cross-examination. She testified that it was her husband’s handwriting. This point was considered relevant and she was not cross-examined on it. The Bombay High Court held that there will be no value given to the opinion of a handwriting expert if he is not examined.\(^\text{16}\) Similarly, the opinion of the expert, an Assistant State Examiner of Documents, was not given any weightage as he did not appear as a witness.\(^\text{17}\) This was also held by the court in the case of *B. Poornaish v. Union of India*\(^\text{18}\), that the expert must give the evidence in the court. Mere report without examining the expert does not have any evidentiary value.

In the case of *Magan Bihari Lal v. State of Punjab*\(^\text{19}\), while dealing with the evidence of a handwriting expert, this Court was of the opinion that it would be very dangerous to decide on conviction merely based on the strength of opinion of a handwriting expert as evidence. It is very well known that the opinion of experts must always be regarded with greater caution, even more so in the opinion of a handwriting expert. There are many precedents which have proved that it is extremely unsafe to convict solely based on the expert opinion without any supporting substantial corroboration. This rule is universally enforced and it is almost regarded as a rule of law.

In the case of *Ishwari Prasad Misra v. Mohd. Isa*\(^\text{20}\), the court pointed out that an expert evidence of handwriting can never be regarded as conclusive because it is merely an opinion evidence.

\(^{14}\) AIR 1964 SC 529

\(^{15}\) AIR 2003 SC 282.

\(^{16}\) Bapurao v. State of Maharashtra, 2003 Cr LJ 2181 (Bom).


\(^{18}\) AIR 1967 AP 338.

\(^{19}\) (1977) 2 SCC 210.

\(^{20}\) AIR 1963 SC 1728.
In *Murari Lal v. State of Madhya Pradesh*\(^{21}\), the Supreme Court held that conviction cannot be made solely based on expert opinion. This is not because of the unreliability of experts as witnesses, rather it is due to the fact that all human judgments are fallible and even an expert may give incorrect opinion because of some defect or error or an honest mistake while observing. The science of handwriting analysis is nowhere near perfect, so there are chances for wrong conclusions. This is why it is important for such opinion to be backed by some other substantial evidence even if the opinion is soundest of reasons. An expert’s opinion has to be tested by the acceptability of the reasons given by him. An expert deposes and not decides. The duty of the expert is to provide the Judge with the necessary scientific criteria for testing the precision of his conclusion which will enable the Judge to form his judgment.

In *State of Maharashtra v. Sukhdeo Singh*\(^{22}\), the Court stated that a handwriting expert is a competent witness whose opinion is regarded as relevant evidence under the provisions of the Evidence Act and it is not considered to be an equivalent to the class of evidence of an accomplice. Therefore, it is not right to regard the opinion evidence with suspicion. Instead the correct approach would be to weight the reason based on which the opinion was made. The equality of his opinion would depend on the soundness of the reasons. There are no set rules in this regard, but the Court has to decide, on a case to case basis, what weightage should be given the expert opinion.

**IV. CONCLUSION**

Section 45 of the Indian Evidence Act, 1872 discusses the position of the expert opinion. According to this section the opinion of an expert is admissible when it is related to matters regarding the sciences or arts. The purpose of an expert witness is to only assist the court in reaching a final conclusion thereby showing that an expert opinion isn’t conclusive nor is it binding upon the court. According to section 47 of the Act when the court has to formulate an opinion on the handwriting of a person, they can consider the opinion of a person who is familiar with the handwriting of such person as evidence. Forensic handwriting analysis and authorship attribution can be very vague as it is heavily reliant on the subjective satisfaction of the person doing the analysis. Forensic handwriting analysis is considered to be weak evidence by courts in many cases. This is due to the fact that all human judgments are fallible and even an expert may give incorrect opinion because of some defect or error or an honest mistake while observing. This is why it is important for such opinion to be backed by some other

\(^{21}\) (1980) 1 SCC 704.
\(^{22}\) *AIR* 1992 SC 2100(2116); (1992) 3 SCJ 330.
substantial evidence even if the opinion is soundest of reasons. An expert’s opinion has to be tested by the acceptability of the reasons given by him. It is very well known that the opinion of experts must always be regarded with greater caution, even more so in the opinion of a handwriting expert. There are many precedents which have proved that it is extremely unsafe to convict solely based on the expert opinion without any supporting substantial corroboration.

With the growth of digitization, the work of a handwriting analyst is undergoing change from its traditional form. With the growth of technology that can analyze large amounts of data in a shorter span of time and give near accurate results the work of a handwriting analyst seems to be becoming easier. But, even with the growing accuracy the courts may continue to maintain reasonable distance from indulging in such expert opinion for the judiciary being an independent body must reach its conclusions independently without being overly influenced by other factors. This can also be seen by the fact that under section 73 of the Indian Evidence Act, 1872 the court has the power to compare the writings on its own and formulate its own opinion. This proves our hypothesis that forensic handwriting expert opinions cannot be considered substantial evidence.
V. REFERENCES

Books:


Journals


Cases:


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