

## Appraisal of Handwriting Characteristics between Two Distant Relatives

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### Abstract

Questioned document examination is a domain of forensic science pertaining to documents whose authenticity is hypothetically doubtful in a court of law. The major reason of analysis is to provide evidence about suspicious documents by employing number of scientific principles and methods. Questioned documents has always been a challenge in forensic investigations as it does not have set protocols for investigation, each case is of unique nature and basis of discovery of new methods and techniques. In this case study the authors found a peculiar similarity between the signatures of two male individuals who were distantly related to each other. The interesting fact about their relation was that they were in acquired relation i.e., having no connection of blood, but they were both found to execute similar model of signature. These signatures on preliminary examination were found to be pictorially so similar that for a layman it could create confusion that it belongs to same writer. Even it has been noted that not only class characteristics were found to be of similar nature but also the prominent visible individual characteristics were similar. Thus, at this very point it becomes important for a forensic expert to identify and differentiate the writers of such models of signature on considering the parameters which has been discussed in the present investigation.

**Keywords:** Questioned Document; Handwriting Features; Simulated Forgery.

### Introduction

Judicial Courts in India or in any other country relies upon handwriting examination for the identification of authorship of any disputed handwriting in general and in advanced form any disputed signature. Undoubtedly, as per the demand of law and even for meeting the ends of the principle of natural justice, handwriting expert evidence is commonly tendered on disputed script. Handwriting experts are, by and large, concerned with the appraisal and identification of the writer of disputed writing. Within the comprehensive field of forensic science, the systematic analysis of documents has a major purpose to make available information about the background of a document for assisting the court of law or to an on-going investigation. *Ellen* has discussed about the uniqueness and believed that in order to learn to

write in a précised style and having deviated from the original manner in a distinct way, individual therefore has a unique method of writing, evidently discernible from that of any other individual. He found it essential to observe further about any individual manner such as its variation within and also from that of others.

Mostly the disputed document issue belongs to two major categories, i.e., those document which calls for the comparison with known specimens from specific source for concluding their origin or authorship. The second category is examined by a scrutiny of the disputed document or by comparison to reference groups. Forensic examinations are engaged in the direction of the detection of those features that turn into classifying traits or features. Basically the entire component forms the basis of comparison, but the rarest have more weightage.

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To opine any case, the most vital parameter is to present the finding of the reports in precise and understandable manner. There may be reasonable justification to support similarities and differences observed during the examination.

### Case History

In this interesting case the authors got an opportunity to examine two signatures alleged to be written by two different persons separately. In a court of Metropolitan Magistrate- NI Act in the District and Sessions Court at New Delhi (India), a complaint petition was filed under Section 138 of Negotiable Instruments Act, 1881 alleging that the promissory note issued by the executor was dishonoured by the respective bank. Before moving further it is important to mention that the executor, who was also a respondent to the instant litigation, was related to the petitioner being his brother in law. Additionally, being a disciple of Hindu religion there was no scope of near kinship. Coincidentally, the petitioner as well as the respondent shared common names in abbreviated form which were also reflected in their signatures.

The signature on the promissory note was disputed by the respondent by rebutting its authorship hence the Learned Metropolitan Magistrate directed an expert opinion regarding the authorship.

### Observations

There was one Questioned English Signature marked as Q-1 was found on promissory note and one Admitted English Signatures marked as A-1, present on a court document, identified by the counsel for defendant (Fig. 1,2).

Similarly, twenty five specimen signatures were procured from the respondent/alleged writer by the permission of the Learned Metropolitan Magistrate. (Fig. 3). So far the comparison between the questioned and admitted signatures are concerned, the prima facie difference between the corresponding letters 'P' was found to be quite appealing and thus indicative of different authorship but on a comprehensive examination of the questioned, admitted and specimen sets of signature, the variation in the letter 'P' tended to indicate the single authorship. According to *Sharma BR*, in the face of numerous similarities, single point of dissimilarity is sufficient to prove different authorship.

Examination of Q-1 revealed free hand movement, moderate speed in the connecting strokes, and single pen operation in its execution and also there was no line quality defect. However, all the variations observed in the Q-1 are within the range and extent of natural variation. Similarly, the inter se comparison of the A-1 and S-1 to S-25 revealed consistency and fluent line quality. Critical examination, even under magnification, revealed no signs of disguise or forgery and the formation of letters were comprehended conspicuously. Examination also revealed prominent wrist movement additionally with moderate speed, heavy pen pressure and escalated alignment. The pen movement in various letters of signatures indicates common individual handwriting characteristics. The patterns of initial and terminal strokes were found to be consistent throughout the set of standard signatures. All the variations occurring in the instant set of handwriting were specifying natural variation as its integral component which was beyond the scope of fundamental difference indicating single authorship for Standard Set of signatures.

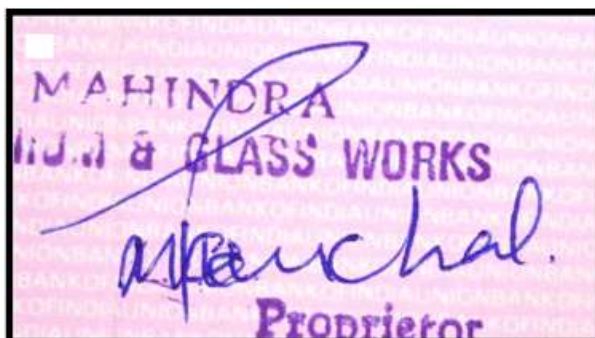


Fig. 1: Questioned Signature (Q-1)

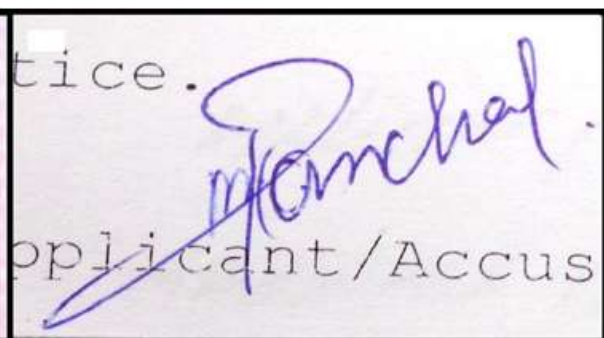


Fig. 2: Admitted Signature by the Respondent (A-1)

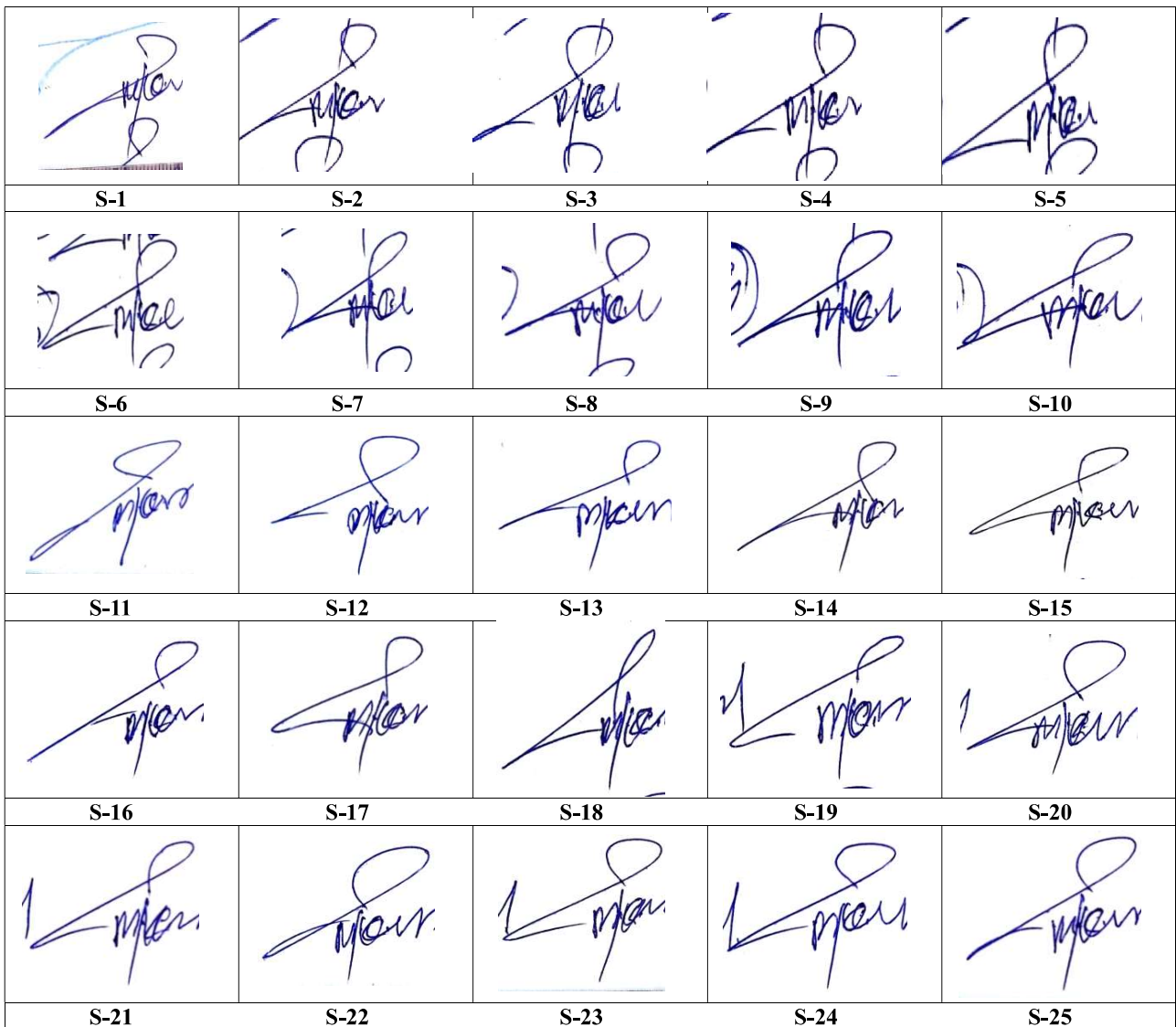


Fig. 3: Specimen Signatures by the Respondent (S-1 to S-25)

Subsequently, main comparison was carried out between Standard English signatures marked as A-1, S-1 to S-25 and Questioned English Signature marked as Q-1. During examination, as shown in Fig. 4, it was observed that the writer, of standard

signatures, is in habit of positioning a spur in the initial stroke of the first vertical staff of letter M, whereas no such formation is observed in the Questioned English Signature marked as Q-1.

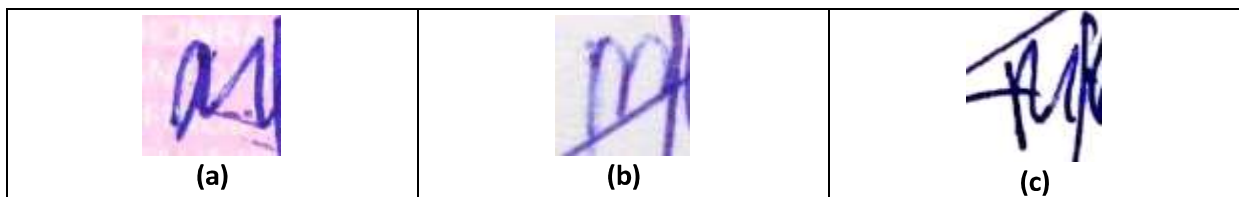


Fig. 4: (a) questioned signature and (b) & (c) specimen signatures

In the Specimen English Signatures marked as S-1 to S-25, (Fig. 5) prominent cross over stroke of letter **P** is observed which is extending downwards, retracing and touching the body of letter **M**, whereas no such retracing and extension of stroke is observed in the Questioned English Signature marked as Q-1.

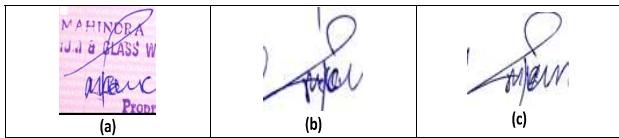


Fig. 5: (a) questioned signature and (b) & (c) specimen signatures

In the Standard English Signatures marked as A-1 and S-1 to S-25 (Fig. 5), the writer is in habit to form the terminal stroke of letter **a** in such a manner that it is connecting with the subsequent letter **n** without joining its own body and leaving an incomplete loop formation in the letter **a**, whereas, retracing of terminal stroke of letter **a** with complete loop formation is observed prominently in the Questioned English Signature marked as Q-1. It was further observed by expert in the Standard English Signatures, the connecting stroke between letter **a** and **n** is observed to be a sharp **V**- shaped, whereas the connecting stroke between **a** and **n** is curved in the Questioned English Signature marked as Q-1. The formation of subsequent letter in Standard English signature i.e., the letter **n** has a copybook model formation, whereas the same letter in the Questioned English Signature, marked as Q-1, resembles letter **u**.

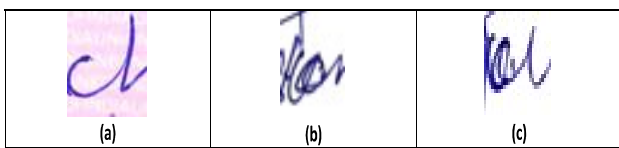


Fig. 6: (a) questioned signature and (b) & (c) specimen signatures

The Fig. 6 shows Standard English Signatures, marked as A-1 and S-1 to S-25, the letter **c** is having slight curvature and a prominent hook formation at its initial stroke concealed in deposition of ink, whereas a deep curve of letter **c** with no hook formation but an incidental ink deposition is observed in Questioned English Signature marked as Q-1. This is the basis of fundamental difference beyond the nature and extent of natural variation.

In the Standard English Signatures marked as A-1 and S-1 to S-25, Fig. 7, shows the connecting stroke between letter **a** and **l** is having **V**- shape formation which lies in the middle of the respective

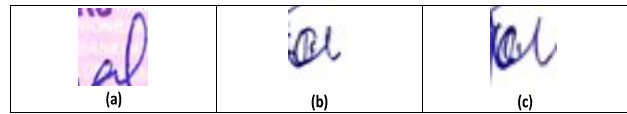


Fig. 7: (a) show questioned signature and (b)&(c) specimen signatures

letter bodies. The letters **a** and **l** are abbreviated in most of the standard signatures due to freehand movement with increased speed at ending, whereas connecting stroke between **a** and **l** is curved and subsequent letter **l** is crossing the body of the said connecting stroke in the Questioned English Signature marked as Q-1.

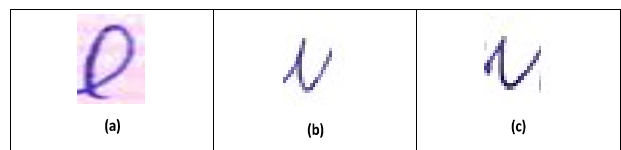


Fig. 8: (a) Show questioned signature and (b) & (c) specimen signatures

The Fig. 8 shows in the Standard English Signatures marked, the writer is seen to be in a habit of putting terminal letter **l** with vertical elongated loop or retracing and extending with a crossing over terminal stroke towards downward direction, whereas the same characteristic feature has not been observed in the Questioned English Signature marked as Q-1.

### Conclusion

It is found in this study that the execution of given signatures by both writers shows same pattern of overall design indicating maximum number of similarity in the class characteristics of handwriting which may direct towards similar authorship and may, in turn, produces false positive opinion which can mislead the court or investigating agency. To sort out such cases expert should always consider the basic principle of handwriting science, that writing features of an individual are attained after a period of extensive practice and is reflected through writer's personal habits which are unknowingly or unconsciously executed. These habits comprise inconspicuous individual features of handwriting which forms the basis of fundamental difference beyond the nature and extent of natural variation. So in order to have similar design of signature all personal habits comprising class and individual features are required to be replicated in similar manner by both the writer which is practically impossible. To opine

such category of cases, each signature has been examined carefully by the expert by eliminating class characteristics and pointing out the individual characteristics of the writer which indicate different authorship of Questioned English Signature and Standard English Signature.

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