# Inconclusive Opinions: Refuge of the Questioned Document Examiner

**REFERENCE:** Whiting, F. L. "Inconclusive Opinions: Refuge of the Questioned Document Examiner," *Journal of Forensic Sciences*. JFSCA, Vol. 35, No. 4, July 1990, pp. 938–946.

**ABSTRACT:** Document examiners are frequently accused of abdicating their responsibility by too often declaring that they can neither identify nor eliminate an individual as the author of the questioned handwriting. It is the author's contention that characteristics of handwriting comparisons often thwart one's ability to form specific conclusions for the following reasons:

1. Handwriting comparisons usually consist of open sets rather than closed sets. In closed sets, it is known that a match exists and the only requirement is to select the proper one. In open sets, it is not known if a match exists and a more stringent standard of accountability is required.

2. The quality and quantity of the evidence may be inadequate.

3. The process of elimination of possible writers frequently is not amenable to definitive conclusions. The lack of similarity between the questioned and known samples is not a sufficient basis for concluding that they came from different sources.

**KEYWORDS:** questioned documents, handwriting. signatures

Establishing the proper basis for the identification of a disputed writing is a topic of continuing concern to questioned document examiners, and numerous articles on the subject are in the professional literature. But less attention has been directed to the very serious problem of how to resolve the issue under consideration when the circumstances do not allow either absolute identification or elimination. There is still active debate as to whether professional examiners should report their findings as probabilities. Many examiners would prefer to have inconclusive determinations than to report that it was "probable" that the subject wrote, or did not write, the disputed material.

Even the questioned document specialists who choose to express their conclusions with ranges of probabilities may have difficulty in dealing with inconclusive opinions. Tom McAlexander, in his paper "The Meaning of Handwriting Opinions" [1]. discussed six classes of handwriting opinions: positive identification. highly probable, probable, possible, not a basis for identification, and absolute negative conclusion. Although his description of "possible" and "not a basis for identification" could fall into a broad classification of an inconclusive determination, he does not specifically address the issue of inconclusive determinations. Yet every document examiner must, in some circumstances, report that he or she is unable to confirm the authorship of the writing under consideration. In such situations, both the circumstances surrounding the evaluation of the evidence and the wording that the examiner uses to express his or her decision are important in gaging the case.

Presented at the 41st Annual Meeting of the American Academy of Forensic Sciences, Las Vegas, NV, 13–18 Feb. 1989. Received for publication 3 April 1989; revised manuscript received 7 June 1989; accepted for publication 17 July 1989.

Document examiner, Crime Laboratory, Washoe County Sheriff's Department, Reno. NV.

## **Bases of Decision**

The author contends that three factors are significant in determining the degree that inconclusive assessments are rendered in a questioned document case.

## Circumstances of the Case: Open Sets Versus Closed Sets

It is believed by some that the conclusion one reaches in the comparison of questioned and known handwriting must be based strictly on evaluation of the evidence at hand and should never be influenced by knowledge of the details of the case. Some examiners fear that such information may subconsciously influence their conclusion or that the opposing party in the ensuing litigation will charge that such a bias did exist. This examiner disagrees with such a position, contending that a significant aspect of questioned document examinations is the application of reasoning to the problem. If all of the elements of the situation are not known, then the reasoning will be flawed. It is true that the analyst's decision should not be influenced by information that the suspected perpetrator has confessed to the writing or that another examiner had rendered an opinion concerning the specimens.

An important component in determining whether an examiner renders an inconclusive opinion or a more definitive verdict is based on the population to which the questioned writing is being compared. In most instances, the population is open-ended, a situation that the author will refer to as an *open set*. On the other hand, sometimes the questioned writing may be known to have come from a more limited population group, which can be described as a *matched set* or a *closed set*. Although the size of the population in a closed set will be variable, it can be important in establishing the difficulty of the problem.

The more open the set that the examiner is working with, the more likely the prospect is of an inconclusive opinion. In assessing the issue, one must realize that the population being described can apply either to the population of potential writers who may have authored the questioned material or the population of source materials which a given suspect may have had access to. In the first situation, the analyst considers not only whether the questioned writing that he is examining may have been written by the suspect in the extant case, but also whether it could have been written by any member of the population at large.

The second situation applies primarily to forgeries and is concerned with the availability of model signatures or other writings that may have influenced the result achieved by the author. For example, if the problem under consideration is a traced forgery, and the submitted evidence includes the master signature from which the tracing was produced, then the population to which the questioned writing is compared has been reduced to a matched set of one sample. Although the finding may not result in identification of the perpetrator, it does clearly establish that the questioned signature is a tracing rather than a simulated forgery.

In the absence of information to the contrary, an examiner must always assume that he is dealing with an open set and apply a standard of accountability more stringent than that required if he were working with closed sets. To illustrate, if one of only four cellmates in a detention facility could have been responsible for writing a letter that resulted in an assault on another person, the identification of the perpetrator would be more likely to be resolved than if the questioned letter could have come from any member of the general public outside the institution. Or, in analyzing a simulated forgery, if the suspect could have seen only a limited amount of questioned writing by the victim, then the questioned document examiner is working with a closed set of available models, which may decrease the likelihood of expressing an inconclusive opinion.

Such a case came to the attention of the author shortly after he started working as a document examiner in Nevada [2] (Fig. 1). The case involved allegations of misconduct

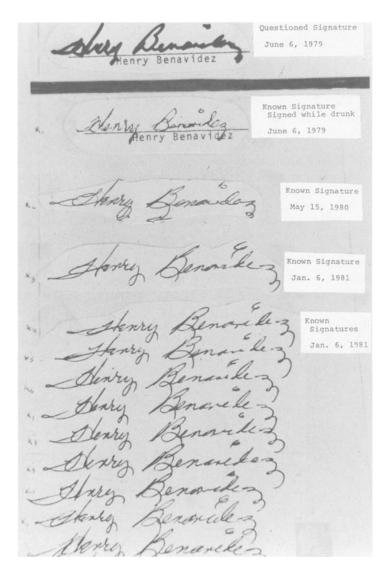


FIG. 1—Comparison of the questioned and known signatures. Could the questioned signature be a forgery if the only model was the "Assignment" signature written while the victim was drunk?

against an attorney in a small town in the Eastern part of Nevada. An old miner had died and his four heirs, including his brother Henry Benavidez, traveled from distant regions for his funeral. The miner had been living for some time with a girlfriend whom he had never married. After the old man's funeral, the four heirs contacted the local attorney and asked him to draw up an "Assignment" transferring the man's estate to the bereaved girlfriend. Each of the heirs signed the document. The signature of Henry Benavidez appears as a sloppy, tremulous, poorly executed writing.

The questioned document was a second legal paper, with the same date as the Assignment, in which Henry requested the court to appoint the girlfriend as the administratrix of his brother's estate. The document contained the signature of "Henry Benavidez" plus the signature of the attorney. Henry later complained to the State Bar Association that he had not signed the second document. His theory was that after the four heirs had returned to their respective communities, the attorney had forged his name to the Nomination of Administratrix. Since the girlfriend would not know that she had been given the estate, and since the four relatives were no longer in town, the attorney could then loot the estate with impunity.

Henry submitted samples of his normal signature, which was artistic and well formed, for comparison with his name on the questioned document. The name on the questioned document, which was written with a fiber-tip pen, had a superficial similarity to the genuine signature of Henry, but was slowly written, with tremor and blunt ending strokes. The Assignment legal document, containing the sloppy signature of Henry, was also submitted as a known standard. Henry stated that he had been "drunk as a skunk" after his brother's funeral when he signed that document, which accounted for the poor quality of his writing.

Strictly from an examination of the signatures in this case, it is probable that the questioned signature would have been declared not genuine and the attorney would have been prosecuted. But this case contained a closed set of known comparison standards. Although the questioned signature was slowly written, it did contain several characteristics of Henry's normal signature. On the other hand, the drunken signature on the Assignment document was so sloppily written that it lacked many of these features. Since the drunken signature was the only model the attorney would have had to make a forgery from, he could not have known the other characteristics incorporated into the questioned signature. As a consequence of this analysis, the allegations against the attorney were dismissed.

In this case, the author felt more comfortable in eliminating the attorney as the writer of the questioned signature than he would have if the attorney had had access to an open set of model signatures. One must keep in mind that whether the case is an open set or a closed set is based not on examination of the evidence but on evaluation of the circumstances surrounding the case. Obviously, the chance for error increases if the evaluation is wrong—it is by this means that a questioned document examiner can be "set up" to commit an error if another person is desirous of discrediting him. It is because of this possibility that the examiner should exercise caution in his conclusions, especially those in which an elimination is made. In the case just cited, the author did not categorically state that the questioned signature was a forgery, but reported that "as a consequence of these observations, I have concluded that the disputed signature 'Henry Benavidez' could not have been formed from using the intoxicated signature of Mr. Benavidez as a model." Such caution accurately describes the situation and provides a safe refuge for the questioned document examiner. The error which so frequently besets the unskilled examiner is that he assumes he is working with a matched set when in reality, the circumstances are those of an open set.

## Quality of the Evidence Undergoing Examination

A second factor which may contribute to inconclusive opinions is the quality of the evidence undergoing examination. During the years of his apprenticeship, the developing document examiner rapidly learns that the single factor most likely to interfere with his ability to arrive at a conclusion of absolute certitude is a lack in either the quality or the quantity of the material used as comparison standards. As Wilson Harrison so succinctly states in his book *Suspect Documents* [3],

No expert can express a stronger opinion than is justified by the nature of the standard of comparative material with which he has been supplied. Long experience has shown that the limiting factors in over 90% of such cases is the nature of such standards. Poor standards result in *inconclusive opinions* and the mistakes made by the handwriting experts in the past have been due to their attempting to do too much with inadequate material in the way of standards.

#### 942 JOURNAL OF FORENSIC SCIENCES

Although the poor nature of the comparison standards is more frequently the source of inconclusive opinions, inadequacies in the questioned samples may also prevent the examiner from identifying or eliminating the suspect.

The limiting *quantity* of material which can inhibit the ability to reach a definitive conclusion occurs when the examiner is faced with comparing a questioned sample with such a small collection of known standards that he cannot establish the range of normal variation for the suspect's writing. Undoubtedly, every examiner has at some time been asked to compare a single questioned signature with one known comparison standard. Again, it is the inexperienced or incompetent examiner who is most likely to make an identification on such an inadequate basis.

The limiting *quality* of material which can interfere with the examiner's capability of reaching a definitive conclusion includes a lack of sufficient comparable letters between the questioned and known samples, differences in script between cursive handwriting and manuscript handprinting, insufficient uniqueness to the submitted writing, and poor resolution of the exhibits, such as in blurred microfiche reproductions.

#### Restrictions to the Elimination of a Suspect

A third factor which may result in inconclusive opinions occurs because it is more difficult to eliminate a suspect than to identify him. The basis for identifying a questioned writing is inculcated into the examiner at the beginning of his training. When a disputed writing possesses significant unique characteristics with no signs of simulation, an identification can be made if the characteristics of the questioned sample are represented in the known writing without any fundamental differences. But if all the criteria for an identification are not met, their absence does not necessarily result in the conclusion that the suspect can be eliminated as the author. Ordway Hilton has described the criteria for accurately establishing nonidentity as follows [4]:

To establish that the known and disputed material have different sources requires that there is at least one basic, significant difference between them—one fundamental identifying characteristic that does not occur in the same way in both sets of specimens. . . . It is a basic axiom of identification in document problems that a limited number of basic differences, even in the face of numerous strong similarities, are controlling and accurately establish nonidentity.

The key element to Hilton's statement is the necessity for determining basic differences. Whether an observed difference is a fundamental one would be less difficult to determine if all disputed and comparison handwriting were naturally and freely written. Unfortunately, such is not the case. A culprit in a questioned handwriting case has a strong interest in avoiding detection and may do so through disguise or, less commonly, through the possession of an additional pattern of handwriting. Although it is commonly assumed that every person has only one basic handwriting structure, it should not be surprising that there are occasional writers who can successfully maintain a different writing systemjust as a bilingual person can speak separate languages without intermingling the two. In truth, every literate person has two distinct writing styles in one respect—everyone is capable of maintaining an entire, consistent body of writing in either manuscript handprinting or cursive handwriting. But some individuals may possess an additional mode of writing that is separate from their basic handprinting and cursive handwriting. Despite similarities which may also be present, Hilton's axiom quoted above could result in an erroneous conclusion if the observed differences—which are consistently maintained-are assumed to be fundamental.

In 1983, the author reported a case to the American Society of Questioned Document Examiners in which the suspect in a fraudulent check writing case maintained two distinct styles of cursive handwriting—one was used with his true name of James Dalke and the

second was used in conjunction with his alias of James Carrigan. Exemplars taken of the name "James Dalke" under both styles of handwriting reveal that, although similarities are present, some differences are consistently maintained, which would seem to rule out the possibility that both sets were authored by the same person [5] (Fig. 2).

It is the contention of this author that because of the possibility of disguise or separate writing styles, the questioned document examiner should be highly cautious when he eliminates a suspect. There are, of course, instances when a suspect can be eliminated as the writer with total confidence—such as when the quality of the questioned writing exceeds the capability of the suspect or when another individual has been clearly identified as the author of the questioned material. But on many occasions, rather than to categorically state that "the suspect did not write the questioned product," the author prefers to state that "based on an analysis of the evidence submitted in this case, there is no basis for identifying the suspect as the author of the questioned sample." If the examiner wishes to make an even stronger statement for nonidentity, while still allowing the possibility that the observed differences are not fundamental, he can preface his conclusion with the words "substantial differences were noted between the questioned and known writing" before stating that there was no basis for identifying the subject.

The terminology described above implies that the suspect was not the author while separating the examiner from an absolute elimination. A comparable situation sometimes arises in eliminating the victim as the author of what may appear to be a simulated forgery. Although the presence of pen lifts, retouching, blunt ending strokes, and tremor

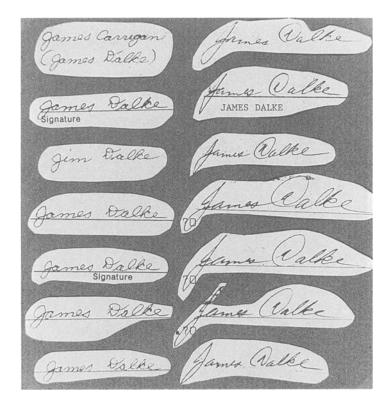


FIG. 2—The signatures on the left were written by the person who claimed to be James Carrigan. The signatures on the right were written by the genuine James Dalke. Although some similarities are present, note that consistent differences are maintained.

#### 944 JOURNAL OF FORENSIC SCIENCES

can reveal the existence of a simulated forgery, one must not overlook the possibility of auto-forgery—in which the supposed victim alters his own signature for later denial.

An occasion for avoiding the outright elimination of a person as the author of the questioned writing was illustrated in a recent case examined by the author (Fig. 3). The case originated when an elderly gentleman name Valentine Galleron was found dead in his hot tub with a plugged-in television set immersed in the water. The case was initially ruled an accidental death until a young man and his girlfriend were caught in Southern California trying to sell the man's motor home. Although they had a bill of sale from Mr. Galleron, the ensuing investigation revealed that Mr. Galleron's housekeeper. Janine Hillman, had cashed checks for thousands of dollars drawn on his account.

The first evidence the author received in the case consisted of three personal checks signed "Valentine Galleron" that were cashed by Mrs. Hillman. At this point the investigation was in its early stages and the detective wished to know if the sloppy, poorly formed authorizing signature was a forgery and if Mrs. Hillman could be identified as the writer. The questioned signatures appeared to be simulated forgeries, but were too sloppily written to identify the perpetrator.

The author's report reverted to the refuge of the questioned document examiner by not stating categorically that the signatures were not Mr. Galleron's, but rather that there was no basis by which he could be identified. This conclusion was followed with an explanation: "The questioned signatures exhibit slow writing speed, hesitation and heavy pen pressure which could represent an attempt to simulate Galleron's style of writing." Despite the obvious poor writing quality, which contrasted with Mr. Galleron's normal style, there were some other characteristics that were bothersome. The first was that on all the known standards submitted, the victim's name was always signed "Val Galleron," but on the questioned checks, it was signed "Valentine Galleron." Also, some of the gross features of the signatures, such as the capital G, deviated from Galleron's style; but more subtle features, such as his unique "eron" characteristics, were much closer to his natural writing form. The questioned signatures were close enough in shape to the



FIG. 3—Comparison of the questioned Valentine Galleron signatures on the left with the genuine signatures of the victim on the right.

writing of Mr. Galleron that one would assume they were simulations—which meant that the perpetrator must have had a model signature to copy from. It seemed strange that the culprit would not notice how the first name was spelled and that he would overlook some of the more obvious features while depicting some of the more subtle ones. It was also surprising that the questioned signatures were so sloppily written when either Janine Hillman or the two people with the motor home could produce much better quality writing which would more closely resemble Galleron's true signatures.

Eventually, the man arrested with the motor home confessed to assisting Mrs. Hillman in dumping the victim into his hot tub and throwing in the TV set to electrocute him. Mrs. Hillman was after the money in Galleron's bank account and gave the motor home to her accomplices for their assistance. According to the man's confession, Galleron was forced to sign his name to the checks while he was sprawled on the floor with a gun to his head and his hands tied together. In retrospect, it appears that he deliberately wrote his name so poorly in order to trip up his executioners. During the author's testimony before the grand jury, he was glad that his report stated that there was no basis for identifying Galleron as the author rather than that Galleron had not written the questioned signatures. When the prosecuting attorney asked if the deviations from Galleron's normal writing could be accounted for by acknowledging that he had a gun pointed at his temple and his hands were tied together, the author was able to reply in the affirmative. The advantage of the refuge of an inconclusive opinion, rather than an absolute elimination, was further illustrated when an opposing questioned document examiner hired by the defense identified the questioned signatures as simulations rather than genuine signatures of Mr. Galleron.

As illustrated in the foregoing discussion, there are a variety of situations which can complicate the issue of eliminations and result in inconclusive opinions. The questioned document examiner must always apply stringent requirements for obtaining the best comparison material possible, regardless of whether the conclusion results in an identification or an elimination. Having good comparison standards is an essential ingredient in reducing the frequency of inconclusive opinions. Proper requested standards, such as handwriting exemplars, provide literatim material, which permits easier evaluation of proportions and connecting strokes, whereas good collected standards provide the examiner with undisguised writing. The probability of an elimination is improved when the collected standards clearly reflect the entire range of the suspect's writing ability and the questioned samples fall outside that range.

Since questioned document examinations are a combination of art and science, the findings the examiner arrives at are influenced by his individual interpretations. Through good training and proper reasoning, an examiner should be capable of accurately resolving most questioned document problems with a high degree of certainty. But some problems do not lend themselves to absolute determinations. This could be due to limitations of the case related to open versus closed sets, to poor quality of the evidence, or to restrictions on eliminations resulting from observed variations which may not be fundamental differences. In such circumstances, it is appropriate for the questioned document expert to utilize inconclusive or qualified opinions rather than express a finding of absolute certitude which is subject to error. It is wise to heed the words of Ordway Hilton [4]:

Qualified opinions are encountered from time to time. In fact, some classes of problems do not permit definite solutions. . . . The examiner who claims to employ methods that never lead to an indefinite or partial solution, regardless of the problem, is one whose opinions should be accepted with great caution, if not suspicion.

## References

McAlexander, T. V., "The Meaning of Handwriting Opinions," Journal of Police Science and Administration, Vol. 5, No. 1, 1977, pp. 43–47.

946 JOURNAL OF FORENSIC SCIENCES

- [2] Whiting, F. I., "The Reasoning Process: An Integral Component of Questioned Document Examinations." presented at the 44th Annual Conference of the American Society of Questioned Document Examiners, Savannah, GA, 1986.
- [3] Harrison, W. R., Suspect Documents: Their Scientific Examination, 2nd impressions with supplement, Sweet & Maxwell, Ltd., London, 1966.
- [4] Hilton, O. Scientific Examination of Questioned Documents, revised edition, Elsevier Science Publishing Co., Inc., New York, 1982.
- [5] Whiting, F. I., "Alternate Handwriting Styles—One Writer or Two," presented at the 41st Annual Conference of the American Society of Questioned Document Examiners. Lake Tahoe, NV, 1983.

Address requests for reprints or additional information to Floyd I. Whiting Washoe County Sheriff's Department Crime Laboratory 911 Parr Blvd. Reno, NV 89512