

## *Handwriting Forensics: The secret world of signature disguises*

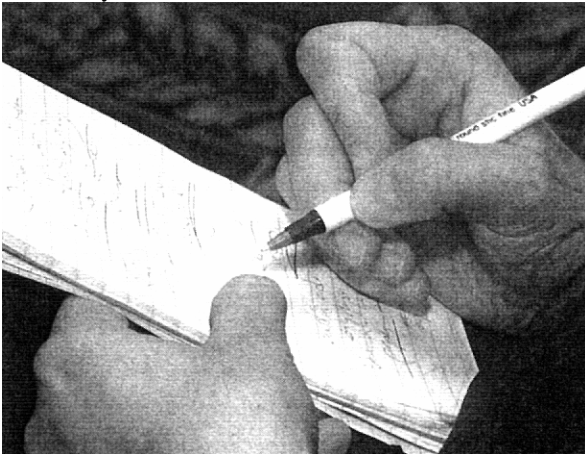


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NOTE: Ms. Joseph is a Certified Document Examiner specializing in the investigation of suspicious signatures and handwriting. The illustrations in this article are public record.

At his first memorable Halloween, Jerry Seinfeld's mom disguised him with a costume. In his book, *Jerry Seinfeld Halloween*, he tells about agreeing to wear it as a desperately clever strategy to get free candy.



Disguises of handwriting and signatures work to a certain degree like Halloween costumes. Like Jerry's mom identifying her costumed son in a Halloween crowd of trick-or-treaters, a proficient handwriting examiner assists in identifying the real writer, especially in cases involving disputed signatures on wills, premarital agreements, promissory notes, and real estate documents, all of which, if falsified, would misappropriate the assets.

Disguising can be done in an attempt to concoct a camouflage of one's signature in order to conceal identity. My research and the research of others have revealed the most common tactics used by people to self-disguise their signatures.

In a typical case involving a disputed signature, the seemingly simple question "authentic or forged?" may be answered in many ways: "He definitely wrote it," "He definitely did not write it," or the answer may be somewhere in between these two extremes including an opinion of "inconclusive."

An authorship problem is raised by the "authentic but disguised" signature. In other words your client alleges that Mr. X wrote it but it doesn't look like his normal signature. Furthermore, Mr. X is denying having written it. Someone may attempt to write his signature using a disguise in order to disclaim it later. In doing this, the disguiser attempts to achieve a certain dissimilarity to his own normal signature. Later, then, the disguiser can say "That's not my signature. I don't write that way." The common motives for attempting a signature disguise would be to avoid any consequences which might result from having signed a burdensome contract or document, or conversely to attempt fraudulent gains.

The handwriting and/or signature examination is a useful identification tool in forensic sciences. It was used in 2002 when Senator Tom Daschle and CBS news anchor Tom Brokaw received the handwritten envelopes during the anthrax scare.

### **How to spot a disguise**

Competent handwriting examiners are able to detect who wrote disputed or disguised handwriting and signatures by objectively comparing the finer features in the written evidence. These include such points as whether or not the capital letter is connected to the rest of the signature, the length and shape of the “t-bar” crossing and even how far up the stem of the “t” it is placed.

Researchers have discovered a correlation between handwriting ability and the neurological organization of each person’s brain, which is uniquely revealed in the individual’s writing trace (i.e., the lines of ink or pencil on the paper). The act of handwriting is an extremely complicated movement behavior that is even more remarkable when someone can write in different ways, such as using the opposite hand or ambidextrously. In one of my cases involving the use of printing as a form of disguise on an anonymous note, the writer used an alternative writing style by substituting little square box shapes for the circle letter “o” in every word.

Signature falsifications are achieved by employing one of the following tactics: cut-and-paste, tracing, imitation, complete distortion, or as a result of self-disguising using alternative writing styles or the opposite hand. For my research on signature disguising, I recruited over 300 volunteer adult men and women, ages 25-65. I asked them to write their normal signature on a 3x5 white index card. And, I asked them to attempt a complete disguise of their signature on the other card. Comparing each person’s signature sets, I found disguise tactics including the changing of the capital letter shape. For example one volunteer named Thomas changed his capital “T” from his normal cursive Palmer style to a printed capital “T”. Others wrote the entire signature bigger or, changed the signature slant from slanting forward to slanting vertical. These efforts changed the overall pictorial resemblance between signatures. However, the finer features of the signature structures remained comparatively unchanged. My findings concurred with the body of research in the field of questioned document examination.

### **The Landers signature**

In a recent case involving the custody of a minor child, I was retained by the attorney representing a young woman who was orphaned at age 14 due to the death of her entire family in a car accident. As a result of the accident, she inherited a large sum of money. She was 15 when a 40-year-old man pursued her into a relationship. Eventually, her pregnancy led the two into marriage. Several years later, in the midst of their bitter divorce, she moved out of state with their child. The father’s purported signature, as illustrated in Figure A is his nickname signature “Chris Landers” as it appears on the questioned document, which was a stipulated supplemental judgment of dissolution awarding the mother custody of the minor child subject to parenting time by the father. The father claimed a geographical challenge to the parenting time provision and firmly denied signing it. The mother vehemently claimed he did.

In the beginning of my examination of the disputed “Landers” signature, in order to form an opinion, I needed to compare valid “Landers” signature exemplars which met the criteria for usefulness:

- Sufficient in quantity
- Sufficient in quality
- Of the same wording/spelling
- Provable as authentic in size and source
- Contemporaneous in date with the questioned signature.

The documents in the Landers’ court file were perfect for this purpose and I was able to harvest and photograph 30 “Landers” signatures as illustrated in Figure B. Although I observed conspicuous differences between signatures, I overcame this obstacle after measuring Landers’ writing trace. The writing trace yielded inconspicuous similarities, such as the opening in the “a” and arch of the “n.”

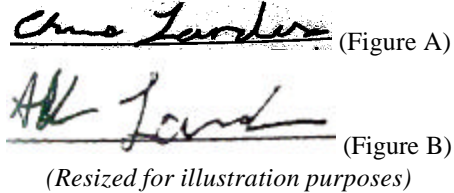
Even though the wording, letter sizes and shapes were not the same, I opined a common author between the questioned signature and the exemplar signatures based on a compilation of very specific observations of movement and a group of similar finer features in Landers’ written trace.

One of the most compelling observations supporting the formation of my opinion was the comparative length of the graphic motor sequence of “Landers.” Graphic motor sequence is defined as a unit of movement between the point at which the pen touches the paper to begin moving and the point at which the pen lifts off the paper to stop writing. In this case, although the overall shape of the questioned “Landers” was significantly different than the group of exemplar “Landers,” I observed that the

comparative length of graphic unit was astonishingly the same given the muscular coordination required by an individual during the act of writing. This repetitive measurement provided a basis for my opinion.

Illustrating my expert opinion to the court, I testified that the disputed “Chris Landers” signature was genuine (i.e., it was written by Chris Landers). I demonstrated enough significant similarities between the divergent questioned and known signatures for a reasonable elimination of the chance identification of another person as the writer. Furthermore, the hypothesis of disguise sufficiently explained the pictorial differences as Landers’ signature style variations. The court decided in favor of the mother.

***Illustration: Two signature styles by the same writer***



*Figure A is the nickname signature “Chris Landers” written on the questioned document.*

*Figure B is one of 30 valid “Landers” signatures written on the legal documents.*

**Summary**

In most cases, with proper exemplars for comparison, a competent handwriting examiner can tap into the wealth of evidence useful in the formation of a reliable expert opinion and identify a disguised signature as to its author.

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