

# EVIDENCE TECHNOLOGY MAGAZINE

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## Laboratory Design

### TOPICS IN THIS ISSUE

- 2013 Evidence Resource Guide
  - Latent Print Testimony
  - Deaths from Inhalant Abuse

# To the Exclusion of All Others

Written by Michele Triplett

**F**OR THE PAST FEW YEARS, there has been ongoing debate about whether pattern evidence identifications are “to the exclusion of all other sources”. The concern is about overstating conclusions, and using the phrase *to the exclusion of all others* implies that a conclusion is irrefutable with no possibility of error. The same concern has been stated regarding the use of words like *definite*, *absolute*, *conclusive*, *100-percent confidence*, or *100-percent certainty*.

## 2008 Hull Frye-Mack Hearing

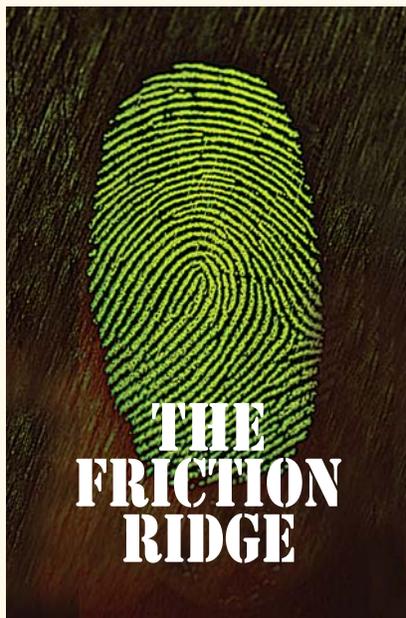
Prior to the Frye-Mack hearing for *State of Minnesota v Jeremy Jason Hull*, conclusions of identity for fingerprint impressions were considered by most practitioners to be “to the exclusion of all others”. The Frye-Mack testimony stated a fingerprint impression could be *identified* to a source but not *individualized*. This distinction was made because the analysts felt that the word *individualize* presented the conclusion as a fact while the word *identify* left the door open for the remote possibility that someone else possessed a similar arrangement of friction ridge detail.

The effort to make this distinction was not a matter of questioning the principle of uniqueness; instead, it was highlighting the amount of information needed to determine that uniqueness had not been established. At some point, the information under consideration may be so minimal or ambiguous that it becomes plausible that another source could have produced a similar pattern.

An additional reason for using the term *identify* over *individualize* was to specify that the unknown impression was not compared to every possible source.

## SWGFAST Modification

In September 2008, based on the ideas presented in the *Hull* case, the Scientific Working Group on Friction Ridge Analysis, Study and Technology (SWGFAST) started the process of removing the phrase “to the exclusion of all others” from their definition of individualization. However,



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SWGFAST did not differentiate between the meaning of identification and individualization as the *Hull Frye-Mack* testimony did.

## The IAI

On February 19, 2009, in a response to the National Academy of Sciences report *Strengthening Forensic Science in the United States: A Path Forward*, the president of the International Association for Identification (IAI), Robert Garrett, wrote a letter to IAI members stating: “Although the IAI does not, at this time, endorse the use of probabilistic models when stating conclusions of identification, members are advised to avoid stating their conclusions in absolute terms when dealing with population issues.”

## Practitioners’ Views

Many practitioners put these events together and claimed they could no longer exclude all others when making a comparison. Others disagreed and felt there was nothing to forbid them from making a determination “to the exclusion of all others”.

SWGFAST had removed the phrase from their terminology but they had not specified that it could not be stated. Similarly, the IAI letter was not a formal resolution nor did it specifically say “to the exclusion of all others”.

Those opposed to the phrase claim it is a statement of fact, where no possibility exists that the impression could have come from another source. Others think of it as a statement indicating the range of those under consideration, acknowledging that conclusions are never absolute.

Everyone would agree that physically comparing an impression to all individuals is unrealistic. Nevertheless, some maintain their conclusions are to the exclusion of all others regardless of whether it is stated. Those people reason that if all fingerprints are accepted as unique, and they have concluded that a fingerprint impression was made by a certain source, then they are excluding everyone else—not physically, but theoretically. The possibility of an alternative conclusion is so remote that it can be disregarded as implausible. If another source could have plausibly made an impression, then the analyst would have given a conclusion of *inconclusive*.

The argument that a person would have to compare a fingerprint impression to every person in order to exclude all others may apply to exact sciences, but fingerprint comparisons are not an exact science. Fingerprint comparisons are logical deductions where appropriate rules of inference are permitted; viewing all possibilities is unnecessary.

## Conclusion

Regardless of which view a person holds, clearly articulating the strength of a conclusion is essential. Stating that a conclusion is “to the exclusion

# FRICITION RIDGE

of all others” may be an overstatement.

Differentiating between the words *identify* and *individualize* may be one solution, but attorneys and jurors may hear the same message regardless of the term used and perceive the conclusion as a fact instead of a deduction. This misrepresentation may inject a debate between opposing court counsel and undermine the credibility of otherwise accurate testimony.

Another suggestion has been to state that conclusions are the *opinion* of the analyst. Labeling conclusions as opinions helps avoid overstating results but it may severely undermine a conclusion if it is perceived as being the *personal opinion* of the analyst and not a *scientific opinion* that would be corroborated by others as clearly beyond debate.

Perhaps a better way to state any positive pattern evidence conclusion is to use a statement instead of simplifying the conclusion down to a single word that can be easily misconstrued. Some possibilities may be:

“The information between the impressions (latent prints, tire tracks, toolmarks, etc.) *indicates* that the impression was deposited by the given source.” Or...

“After analyzing the data, the *only plausible conclusion I can arrive at* is that this impression was made by this source.” Or...

“I have thoroughly examined the data between the impressions and I *would attribute* impression A as coming from source B.”

Using a statement in lieu of using a single word for conclusions may be beneficial because the weight of the conclusion can be indicated along with the conclusion itself. Phrases such as these present a belief grounded in reasoning while one-word answers present a conclusion as absolute fact. ○○○

## About the Author

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