A197 Transparent Latent Print Testimony: When the Basics Are No Longer Basic

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After attending this presentation, attendees will be acquainted with the need to articulate basic concepts in fingerprint comparison science in a way that is modest, transparent, and helpful to a trier of fact. Many examiners have expressed frustration in the wake of the National Academy of Sciences (NAS) Report that they are not supposed to say things like "zero error rate," "exclusion of all others," and "100% certainty," but they don't know why not and they don't know what to say instead.[1] This presentation will provide that explanation and guidance, showing attendees a better way to express their findings in court.

This presentation will impact the forensic science community by providing examiners with a roadmap to more transparent testimony and helping them to understand the underlying concepts in the current paradigm shift away from claims of uniqueness and global individualization. This adjustment is not without its growing pains and may be downright intimidating to some. This presentation will break down these daunting concepts into simpler and more defensible pieces.

Once upon a time, latent print examiners knew exactly what to say in court. A latent print is a representation of the friction ridge skin that has been transferred to a surface by touch. Because friction ridge skin is unique and permanent, that representation can be matched back to its source skin with 100% certainty to the exclusion of any other donor in the world. If the process is followed correctly, there is no possibility of error, making latent print evidence the most reliable form of identification there is.

Life was simple back then. Unfortunately, the way fingerprint evidence has traditionally been presented in court is problematic. Uniqueness theory has not been (and never will be) empirically proven. Global individualization is an inferential leap that is conceptually unnecessary. Errors have happened, making claims of a zero error rate demonstrably false, particularly as it makes no sense to separate method error from practitioner error in a process where the practitioner *is* the instrument. Absolute certainty is an unscientific concept that should not be espoused by anyone claiming to be a scientist or to be using a scientific process.

All this begs the question: what *should* latent print examiners say? Suddenly, all the comforting phrases that were so carefully learned during training are taboo and nobody has explained why, or told you what you *can* say. What do you do when everything you thought was a basic tenet of your science is now off-limits?

This presentation will explore the concepts of uniqueness, specificity, discriminability, error rates, analyst variability, certainty, and the identification decision in the context of the relevant population. We're going back to basics and reinventing ourselves in a new, modest, transparent, and scientifically defensible way. You'll learn that you really don't need grandiose claims about individuality and infallibility to be able to present probative, reliable evidence in court. The jury will still trust you, the judge won't limit your testimony, and you won't lose your job to a computer spitting out probabilities.

In this presentation, you will learn how to articulate your decisions and lay the foundations for your science clearly and defensibly (not defensively!), with current research to back you up.

Reference:
    5.   Committee on Identifying the Needs of the Forensic Sciences Community, National Research Council. *Strengthening Forensic Science in the United States: A Path Forward*. National Academies Press: Washington, DC, 2009.

Latent Prints, Testimony, Transparency