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Moving Towards Professionalization of Latent Print Examiners

Latent print comparison is the oldest and most trusted practice within the forensic sciences. Age has not, however, imbued it with nearly the professional stature that should be accorded an art or science that has contributed so much to law enforcement and criminal justice. Many of the problems that stand in the way of professionalization for latent print examiners can be addressed only with long-term solutions. There are, however, some things that latent print examiners should do, as individuals, that will help to accelerate their recognition as forensic scientists, just as firearms examiners, handwriting examiners, and even general criminalists are so recognized.

Friction skin identification has been presented to the public as an infallible method of identification ever since Mark Twain's *Pudd'nhead Wilson*. In the 1920s and 1930s, the FBI's success in locating and capturing criminals through the use of fingerprints focused great public attention on the "science." For whatever reason, and whether it is considered primarily an art or a science, the practice of identifying criminals through the use of latent prints has gained an extraordinary trust by the public and by those in the law and justice communities. O'Hara and Osterburg [1] have stated:

There is a tendency among laymen (and law enforcement officials, too) to stand in awe of this fact of unique correspondence between fingerprint and finger. For them there is a sacredness and value (apart from classification systems) in a fingerprint which they will not grant to the palmprint or the tool mark.

More to the point, several courts in the United States have stated that a single latent print identified as a defendant's is sufficient to support a conviction if the latent print is found in a place that is inconsistent with innocence. To my knowledge, no other type of evidence has been so honored.

Why then are there practically no education and training requirements for those engaged in the practice of friction skin identification? Individuals who are categorized as criminalists are generally required to have a baccalaureate degree in some field that can be related to criminalistics even though it may not be directly related to the task being performed. Many of those engaged in the comparison of friction skin characteristics have no more qualification for performing the work than a 40- or 80-h course for which a "Certificate of Completion" is issued without benefit of testing. I feel that the low level of professionalization within the field is directly related to the public's and the law and justice community's trust in the infallibility of friction skin identification. If something is so sure, subject to no equivocation, then it must be simple, merely a matter of "counting points." Indeed, there are many individuals in authority in law enforcement who seem to equate the ability to lift latent prints with the ability to identify them.

There is a program currently being promoted by the International Association for Identification to certify latent print examiners. Under this program, individuals who enter the

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field five years hence and who desire to be certified must have an Associate of Arts degree, and in ten years, a baccalaureate degree. There are also current and future requirements for training, experience, and testing. I do not think that the program goes far enough to adequately treat what is the most widespread of the forensic sciences. The educational requirements are entirely nonspecific, the training is minimal, and the experience requirement does not even demand supervision. Simple though its theoretical basis may be, the universal trust in the infallibility of friction skin identification makes it even more imperative that those who engage in it treat it with the same objectivity and circumspection that is accorded other forensic sciences.

In a 1963 article, Kirk [2] made a statement about criminalistics that, with little modification, succinctly expresses my feelings about latent examination:

Criminalistics is an occupation that has all of the responsibility of medicine, the intricacy of the law, and the universality of science. Inasmuch as it carries higher penalties for error than other professions, it is not a matter to take lightly, nor to trust to luck. . . . Where is criminalistics, forensic science, or whatever it may be called, going? Is it not time to make a serious effort to define a goal, so that we may all talk about the same thing and move in similar direction, in order that the field will command greater respect, and generate more pride in its accomplishments?

Latent print examiners should take this attitude to heart. Besides being the most common type of evidence collected at crime scene, latent prints are responsible for the solution of more crimes, and the conviction of more criminals, than any other single type of evidence. It is obvious that the responsibility is enormous. It is just as obvious that latent print examiners are the least trained and least "professional" of the groups within the forensic sciences.

Symptomatic of the failure of latent print examiners to professionalize and treat their field as if it were indeed a forensic science is the failure to use terminology that is well defined and scientifically acceptable.² Probably the most misused term in the field is the word "identical." Many texts and treatises, when discussing the identification of friction skin, state that in order to make an identification, two prints must be identical. For example, a text by O'Brien and Sullivan [3] states:

Twelve ridge characteristics (no matter what type) will prove that an original latent print (questioned) and an inked print (known) are identical and have been made by the same person.

And Kirk [4] has said, "No two prints have thus far been found to be identical except when they came from the same source," implying, of course, that if they did come from the same source, they would be identical.

Even considering the weight of authority of these and other texts, if one reflects on the definition of "identical" it becomes apparent that using the word to describe the relationship between two prints made by the same finger or palm is inappropriate. "Identical" is defined by Webster's dictionary [5] as meaning "the very same" or "exactly alike or equal." It is not my intention to engage in a philosophical discussion on the subject. However, it seems logical to me that two prints (latent and exemplar) made at different times and under different conditions cannot be "the very same" print, nor can they be "exactly alike or equal."

Other types of evidence are treated with more precise terminology than is generally applied to latent prints. In his book, *Footwear Evidence* [6], Abbott writes:

²Latent print examiners are not the only ones in a field with terminology problems. Some firearms examiners still use the word "ballistics" improperly. Ballistics has to do with the flight characteristics of a missile, and yet it is still used to describe the comparison of the striated markings on the missile.

The specialist should refrain from using the expression "the test impression was identical with the crime scene impression." Rather, he should stress that both impressions came from a common source. . . . The word identical, in its true sense, defies the finding of any aspect at all dissimilar.

And the authors of *Scientific Police Investigation* [7, p. 77] have stated in regards to bullet comparisons:

Even if bullets were fired in succession from the same weapon not all individual characteristics would be identical. There would be some striations caused by powder residues, rust, corrosion and pitting, sand or dirt, and other surface factors or "fugitive" materials which of course are not likely to be duplicated on all bullets fired through that particular barrel. Moreover, there might be other striations on the bullets which have no relationship to the interior of the barrel through which they were fired.

Are two gas chromatograms ever identical? Are two handwriting samples ever identical? The answer in each case is no. The closest that any comparison can come to an "identical" conclusion is with respect to the source of the items being compared. In order to state that two prints share a common origin, it is no more necessary to find them to be identical than it is necessary for two bullets, or two shoe prints, to be identical to state that they share a common source.

There are some authorities who extend the courtesy of precise terminology to the field of latent print identification. Osterburg [8] has written:

It has been said that no two things are exactly alike. This premise is undoubtedly true if methods are available for full disclosure of ultramminute differences. Thus, no two fingerprints are exactly alike if the examination of the ridge lines is pursued to an ultra fine degree. Yet, it is fairly common knowledge that two fingerprint impressions can be identified as having a common source (one finger) with little likelihood that they were made by two different fingers.

And Cherrill has stated very specifically in *The Fingerprint System at Scotland Yard* [9]:

When evidence is being given about a scene of crime mark dogmatism with regard to the use of the term "identical" should be avoided.

The identical relationship of prints from the same finger ends with the sequence of the ridge characteristics. Prints of the same finger, no matter what the method of recording them may be, cannot be identical in every respect. Even in the case of prints taken with ink, there are always slight differences. These arise through varying degrees of pressure used in taking the prints, the quantity of ink used, the quality of the paper, etc.

While those writing on the subject may be divided on the use of the word "identical," it is my experience that those who work exclusively, or primarily, in the field are not. Latent print examiners with many years experience usually exhibit a strong determination to avoid the subject in conversation, as if their credibility or expertise were being questioned. This is certainly not the case. The point I have tried to make is that, in their struggle for recognition as forensic scientists in the future, they should be willing to adopt a more rigorous terminology now.

The word "identical" is not the only terminology problem that is pervasive in the language of latent print examiners. Sir Francis Galton demonstrated in 1890 [10] that it is possible for two prints of the same finger to exhibit a dissimilarity. But to this day, latent print examiners continue to state, often under oath, that a single dissimilarity would be sufficient to negate an identification, but that an "apparent dissimilarity" would have no effect. If an examiner would be willing to positively identify a particular latent print with only eight points of similarity (which many are), what would be the outcome if a more complete latent print showed an ending ridge that was not present in the exemplar print? What then of the eight points? In Galton's case, he marked out 43 points of similarity in addition to the one dissimilarity.

Additionally, what type of dissimilarity is to be considered? Anyone who has spent even a minimal amount of time comparing friction skin characteristics has seen a bifurcation in one print appear as an ending ridge in another print of the same finger. Islands often appear as short ridges or as bridges. Such occurrences are common, so common that they are usually overlooked; they are subconsciously allowed for as normal aberrations. They are, nevertheless, dissimilarities. In an attempt to bypass this obvious definitional problem, the term "apparent dissimilarity" has come into general use. A text by Inbau et al [7, p. 35] explains:

In comparing latent prints with inked impressions, a number of apparent dissimilarities may be observed. If these differences are explainable as being caused by ordinary pressure distortion (very common), or by partial blurring or filling up of ridges with developing powder, or by superimpositions, they have no effect on the process of establishing identity. Should an unexplained dissimilarity occur, however, as for example the appearance of a clearly defined ridge characteristic in the latent print which does not appear in the inked impressions, then the conclusion is warranted that the prints were not made by the same finger.

If one considers that latent print examiners compare what they see and that what is seen is apparent, whether similar or dissimilar, it becomes difficult to comprehend just what an "apparent dissimilarity" can be. It is explained that an apparent dissimilarity is one to which a reason can be assigned. But, if one considers the myriad things that can affect the appearance of an inked or latent print, it becomes obvious that the "reason" assigned to the appearance of a particular dissimilarity will be a guess. Call it an opinion based on experience if you wish, but such "reasons," however well founded, are opinions to be taken into account when a final conclusion is reached. They should not be stated as fact [11].

It may be easier to state in court that two prints are identical than to explain that the prints exhibit sufficient similarity to have a common source. It may be simpler to say that obvious differences in the prints are only apparent and not real, and therefore, do not count, than to explain how it is possible to make an identification when there are dissimilarities obvious to everyone in the courtroom. I believe that latent print examiners either have never learned or have forgotten that when they testify as expert witnesses, they do so in order to give their opinions. But, rather than stating their conclusions as opinions, they present them as facts, incontrovertible and immutable. Webster's dictionary [5] defines opinion as "a belief not based on absolute certainty or positive knowledge but on what seems true, valid, or probable to one's own mind." If a latent print identification was an immutable fact, then the examiner would have nothing more to do than to present the latent and exemplar prints to the jury because, under our system of law, only they can determine what is fact in the absence of stipulation by the parties involved.

Latent print examiners have taken their first step towards raising their status and gaining the recognition due them as practitioners in a field that has done so much for the criminal justice system. That first step, the certification program, is not, however, all that need be done. Latent print examiners will not be granted that which they feel is their just due by merely hanging certificates on their office walls. They must be willing to change themselves, not just ask others to change their attitudes towards them. One small change that should be made now is to remove from the vocabulary of the latent print examiner the terms "identical" and "apparent dissimilarity." The former is a patent impossibility and the latter is an obvious evasion.

References

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