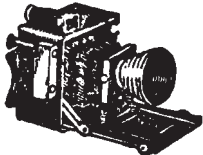




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Infallible

(This article is reprinted from the "The Detail" issue #267, #268 and #269 ,
CLPEX.COM)

(Editorial by William Leo, CLPE..... This is an outstanding talk given by Steve Scarborough. One area that Steve addresses is the difference between scientific philosophy and the application of science in the real world. Always remember that our forum is the justice system and it is argued in courtrooms, not classrooms and the courts of the world have embraced fingerprint identification. Academics, such as Cole and Faigman, have an agenda and that agenda is not to make our field better. Theirs is far more self serving and it serves them no purpose to acknowledge what has already been firmly established; that all areas of friction skin are unique and can be individualized, and that fingerprint examination is a very reliable form of evidence. To use the courtroom to debate or promote their self-serving philosophical theories is reckless to say the least.

Bill Leo)

by Steve Scarborough

(Addressing a large audience of latent print examiners)

Good Morning Ladies and Gentlemen,

Today we are going to discuss a number of issues with regard to the uniqueness of Fingerprints and hopefully you will gain benefit from seeing another side to some of today's most heated fingerprint-related issues, while pondering some different and thoughtful perspectives. Many fingerprint experts see that challenges are good for the discipline; that challenge help us think about some issues that some would just prefer to let pass by. We are often too busy with our daily casework of making comparisons, processing crime scenes and catching criminals to ponder some of these often theoretical thoughts about Forensics.

There is the hypothetical and theoretical side of certain issues vs. the practicality of our daily work, something we will discuss later in today's presentation. However, if there is value in some of these challenges, we should be appalled at the more outrageous claims by the very tiny handful of critics.

Right now though let's look at this headline:

HEADLINE: Medicine in shambles. People refuse to go to Doctors for Treatment! A study shows that doctors make mistakes in diagnosis.

I am going to show you a few more headlines throughout this presentation to make a point.

TODAY we are going to discuss various ways to look at just 8 issues about fingerprints, though I know there are more bouncing around out there. We all know that there are a lot of ways to look at an issue and usually none of the perspectives are wrong but some are not very logical. I won't say that any perspective is the only correct one, but I will provide some logical or empirical data for certain points of view.

First, though, let's get a perspective on the issue of uniqueness. The science behind the uniqueness of fingerprints and specifically the random creation of friction ridge skin is solid. The statement: Fingerprints are (absolute and) infallible, you must remember, is in response to a challenge that Fingerprints are not unique. And claims like- "we haven't seen all the fingerprints in the world or in history" or "there hasn't been enough research to show that they are unique."

The "infallible" statement is not meant to address the issue that fingerprint experts may make mistakes. That emphasis or new meaning to the phrase came much later in an attempt to promote a separate agenda. In other words the statement is solid in its original context and the emphasis was changed by someone as a leap of logic.

So don't forget now, the context of the strong response statement "Fingerprints are infallible" is in reaction to the challenge "that fingerprints are not unique (and therefore should not be used to individualize to a person.)" This statement is in the context of the challenge that fingerprints are Not unique therefore it is entirely appropriate in this form. Perhaps a better word than infallible could have been used, absolute, unique, reliable ...but the context has nothing to do with the human imperfection of making a mistake.

Look at the statement here: "Fingerprints are infallible." Now here is the leap: "So you can't make a mistake then?" Stop laughing for a second and you can see how the two concepts do not go together.

Here is another headline.

HEADLINE: Flaws in Radiology! X-Ray machines are not accurate. "X-Rays should not be used," says California university professor. Interpretations of x-rays have shown mistakes.

We have seen a lot of bold headlines to various stories lately. Some of which, if the story is read diligently, can be scrutinized to show that the headline is not supported by the facts of the article. Of course that is not at all that unusual in journalism. The object is to catch the eye of the reader. I am sure you can remember some of those you have read.

Now why show you these headlines? To point out that leaps of logic are occurring here. These

headlines I am showing you are leaps of logic without any substance. Much like the challenge statements that have been posed about the validity and reliability of Fingerprints.

For instance here are some of the headlines we have seen about Fingerprints lately.

HEADLINES:

The Myth of Fingerprint Science Revealed!

How Far Should Fingerprints Be Trusted?

Fingerprints are Not Infallible Evidence.

Are Fingerprints Really Infallible, Unique ID?

Unproven Forensic Techniques sway courts!

The Real Crime- 1,000 errors in fingerprint matching every year.

A leap of logic is when the conclusion does not follow the supporting information. It is the *opposite* of the scientific method in operation. It is my opinion that that is exactly what occurs in Simon Cole's book, *Suspect Identities*. Extensive evidence is presented in the book to show that Fingerprints have been challenged in court, have been extensively researched, are currently being researched and studied, are reliable and are in fact unique. However, the author interjects his own conclusions that are the opposite of the evidence presented; resulting in confusing leaps of logic.

Now why would some people make these leaps of logic? Why would they skew normal logic and ignore their own research? I will let the audience come up for the reasons behind this *intentional ambiguity*.

Which brings us to **Leap of Logic #1 "There is nothing absolute in science" —**

Let's explore a response to this statement.

This is a great philosophical and theoretical expression that is well suited for think tanks and academia, but not for the practical world. This is one of my favorites. In fact, in the practical world, it falls into one of the

MYTHS OF SCIENCE:

"Nothing is absolute in science!"

Though this might be a good philosophical argument, in practicality it is a science myth.

Let's look at some other science myths. No, there are really no alligators in the sewers of New York and these are also science myths:

“Humans use only 10 percent of their brains.” An MRI of the brain shows that most all of the brain is put to use. 2

“Water drains backwards in the Southern Hemisphere.” Just not true. You can see for yourself on your next trip south.

“Lightning never strikes the same place twice.” Not true, lightning favors certain spots, particularly high locations.

“There is no gravity in space.” “Zero-gravity” and space is a vacuum are more science myths. Gravity affects everything throughout space.

Gravity is a very good example here because that is one of the major factors to mention to counteract the statement of “nothing is absolute.” Gravity is absolute! The recent NASA space probes used gravity for propulsion in the deepest space. In fact the term “zero gravity” is a misnomer. Gravity is absolute (infallible) and there are no two planets, fingerprints, plants, tigers and snowflakes that are exactly alike.

If you think about it, this dogmatic approach is really anti-science. To even consider the possibility, from what we know of the random creation of all of these objects, that any one of these things could have another randomly created object exactly the same flies in the face of scientific knowledge. In other words, to disregard all of the evidence that points to one conclusion and –just for the sake of the old myth- keep thinking of the possibly of a random duplication in nature.

If you ask the right questions of most of the scientist in these fields they will say that, in the practical world, no two snowflakes, no two trees, no two asteroids are alike; and that is the absolute.

A sub category of Leap of Logic #1 is the statement “even math is not absolute.”

The argument follows that because a triangle cannot be created that is perfect, even math is not absolute. Another very theoretical statement, however, this is really referring to the human formation and drawing of the triangle –but the philosophical measurements are exact and absolute –so that just proves the point if created by “nature” or in random manner it can’t be exact –just like no two fingerprints are alike.

Another thought that relates to this idea that is sometimes professed regarding Fingerprints is the following thought: “After all, every transfer of a fingerprint is distorted and not complete, so it is always different and difficult to categorize as a unique medium.” This statement actually mixes physical structure with interpretation –human intervention (nature) and therefore doesn’t change the fact that the original surface (skin) cannot

be recreated and is unique. Just because every impression is different doesn’t mitigate the fact that the friction ridge skin is still unique.

Hypothetical, philosophical and theoretical

Obviously there are a number of issues about Fingerprint Science that can be discussed on a philosophical and theoretical level. This approach is absolutely appropriate for think tanks, academia and the published treatise. However, what the working fingerprint expert knows is that just doesn’t cut it in the real world. We have to be able to acknowledge that side of the issue; and then separate it from our practical work.

Next let’s look at:

LEAP OF LOGIC #2 “The FBI says that they don’t make mistakes” –

You might have heard this statement during a discussion about the infallibility of fingerprints. We already know it is a leap of logic to mix uniqueness of fingerprints with human mistakes but let’s look at this statement anyway: “The FBI has always said and promoted that they do not make mistakes.” Well this is patently untrue from most of our experience. And certainly not anything that is the official line of the FBI. I would guess that this leap derives from -interviewing some experts and lurking on the websites- hearing that the FBI has always presented an air of superiority. And also from a misinterpretation of very confident FBI court presentations regarding fingerprint IDs. But that does not translate into “the FBI has always said that they are infallible.”

In all the training classes and presentations and testimony, the FBI has never once said that there are no mistakes made by fingerprint experts. In fact the FBI, in warnings about effective verification, mentions mistakes that they are run across in submitted cases from local agencies. The FBI has always promoted verification, consultation and double checks to assure that no mistakes in fingerprint identifications are made. The FBI has always based their high confidence of their fingerprint IDs on the infallibility of the science.

The FBI instructors stress verification and other quality control measures. They promote and teach verification to prevent mistakes. If people didn’t make mistakes with regard to Fingerprints (people are infallible) then we wouldn’t need verification. But we all know that human beings make mistakes, and it goes without saying that humans are not infallible. The assumption that when the FBI fingerprint expert says that they are 100% certain about the ID, that they are implying that they don’t make mistakes, is a grand leap of logic.

HEADLINE: Miscalculation made in Hubble Telescope. Entire sciences of astronomy & engineering called into question!

If you look back at these headlines, not only are they leaps of logic, but some are also a *false dichotomy or false dilemmas*. While the statement, “he said that Fingerprints are infallible therefore he says he can’t make a mistake” is a laughable leap of logic, it is also a gross false dichotomy. A false dichotomy or false dilemma is a logical fallacy that supplies only one answer to a situation. Often used in propaganda, these statements try to lead you into a conclusion that is serves a purpose, implying there is only one conclusion, when there are always many conclusions to any situation.

“You are either with us, or you are against us”. “If you vote for that protection law -they will just raise prices (rates).” “You’re either part of the solution or part of the problem.” You may see how some of these leaps of logic do not account for other alternatives and are false dilemmas.

Leap of Logic #3, “After all that is what we have been saying for all this time” -

Another thought being suggested is the idea that the fingerprint community has been saying all along that fingerprint experts don’t make mistakes. Well, in reality, what we have been saying is that this ID was achieved through extensive evaluation, it has been verified and we are 100 percent confident in the conclusion. That doesn’t sound anything like the discipline has always said that they don’t make mistakes now does it?

By stating, as we have over the last 100 years, that we are confident of an ID, it means just that, and it is obviously a leap of logic to twist that assertion to mean that we have always been saying that experts don’t make mistakes.

HEADLINE: Two Snowflakes Found to be Alike!

This is actually part of a real article. It can be found on the Australian “*great moments in science*” website. There is an article entitled “Fingerprints Identical?” The article, written by Dr. Karl Knuszelnicki, is skeptical about the validity of Fingerprints. However, it reeks of leaps of logic. For instance, it states there were 22 mistakes of fingerprint identifications in the last 100 years, therefore that reverses the validity of Fingerprint Science. And the article arrives at the bizarre conclusion that because the IAI requires that conclusions must **not** have *possible or likely* results, therefore “they never admit to an error.” 3

Within the article it mentions that “a scientist by the name of Nancy Kerry found two identical

snowflakes in a Wisconsin snowstorm in 1988.” The implication is that snowflakes can be alike and so can fingerprints. However, the real story is that a scientist by the name of **Nancy Knight** observed two attached ice crystals that were “very similar if not identical.” (her words) 4 What seems to have happened is that it is unusual to have ice crystals even closely resemble each other, and that was an event in the world of atmospheric research. In actuality, when comparing the crystals with an eye for uniqueness, like a comparison expert does, the crystals are not at all alike. 5

Look at these photos of the crystals.6 They are similar but not exactly alike. You can see that this similar rarity of ice crystals actually reinforces the axiom that no two snowflakes are alike and pretty much shoots a hole in this “great moment in science.” Once you delve into the article you find that the headline isn’t true.

Leap of Logic #4, Well that is what we have been taught

Another thought or argument is that we have all been taught or trained that fingerprint experts cannot make a mistake. This seems to me to be another logic twist to information gleaned in interviews or internet lurking. In fact, just the opposite it true.

Look at this statement: “Finally, we hope that fingerprint examiners will rethink their longstanding claim that competent examiners cannot make errors. Always wrong, this claim is now absurd. Like emperors caught without clothes, fingerprint examiners must now decide whether to acknowledge reality or continue their brazen pretense.” 7

That statement is a huge leap of logic with plenty of skewed thinking. As fingerprint experts, we have been taught that the science of Fingerprints is exact, the methodology and biology supports that fact, but as a practitioner, a fingerprint comparison does have pitfalls and you have to prevent them the best you can.

Many of us were not taught in just that language or rhetoric. However, just like Ridgeology, we may not have been using the language, but it was a process we have been following from day one. As fingerprint experts we have been taught that we must work to avoid mistakes. We have always talked about mistakes and have never, ever, had conversations that there are no mistakes in fingerprints. Almost every expert was taught in classes and by their trainers to prepare for questions about mistakes in court.

Remember that moot court question you are always asked? “Have you ever made a mistake?” Does that sound like we have always been taught that fingerprint experts don’t make mistakes? Of course not!

In training, and in our in moot courts, we were questioned about the importance of verification and what would happen if you made a mistake. Remember the old adage “If you make a bum ID that will pretty much end your career.” Despite the hyperbole, it is obvious that statement means, not that there are never mistakes, but that an expert must take all the precautions to prevent them.

Additionally as part of our training we have been taught about confirmation bias and pressure from DAs and detectives. We were taught not to let that outside pressure effect your examination and to keep a clear head on those high profile/pressure comparisons.

We would never have been taught about these issues if at the same time we were being taught that it there were no mistakes in Fingerprints.

In training, our instructors show us the mistakes we made, so that we can try not to make them in actual casework. The message has been: be very careful and have a through verification of all your IDs. So obviously statement #4 is a tremendous leap of logic.

We are continuing to discuss a number today’s most heated fingerprint-related issues while pondering some different and thoughtful perspectives to gain benefit from seeing another side of the issue.

Leap of Logic #5, “Isn’t that what you are saying by the statement of infallibility?”

That people can’t make mistakes? Well, no. That is not what anyone is saying by the assertion of the infallibility of Fingerprints. Funny, but that doesn’t happen in any other discipline or science. When an expert makes a general statement about their science or discipline they are not referring to the conclusions made by individuals in that area of expertise. Experts make assertions, some very restrictive, about what happens in their discipline to support their conclusions. In other words: due to gravity, water drops to the lowest point. This statement is positive and solid –it is not saying that an engineer never makes mistakes. When a hydrological engineer says that the water invariably flows down that section of pipe and is 100% confident that is how it works, that person is not saying that engineers don’t make mistakes. It is a leap of logic to think that one follows the other.

Now that I have armed you with the tools: leap of logic, false dichotomy& false dilemma, intentional ambiguity, science myths and the ideas of context and philosophical vs. practical discussions-

Let’s look at Karl Popper. Here is another perspective on Popper and *falsifiability*. Karl Popper was a NOT a scientist, he was a philosopher. 8 He wrote about progress of science and scientific

ideas. He was vastly concerned with the social sciences, such as the ideas of Freud, and Marx and analytical philosophy.

There are many scientists that do not agree with Popper. In fact, Popper is and always has been surrounded by plenty of controversy. Remember, Popper was a philosopher, not a bench scientist. Popper worked in the abstract, the philosophical world. While his theories have merit in that world, they really have little relationship to the practical world.

“Thomas Kuhn’s influential book *The Structure of Scientific Revolutions* argued that scientists work in a series of paradigms and found little evidence of scientists actually following a falsificationist methodology.” 9

“Another objection is that it is not always possible to demonstrate falsehood definitively, especially if one is using statistical criteria to evaluate a null hypothesis. More generally, it is not always clear that if evidence contradicts a hypothesis that this is a sign of flaws in the hypothesis rather than of flaws in the evidence.” 10 However, one interesting stance of Popper is that he “makes clear in the *Logic of Scientific Discovery*, his belief that the resolution of conflicts between hypotheses and observations can only be a matter of the judgment of scientists, in each individual case.” 11

In the end, Popper’s falsifiability notion is a perfect example of how a philosophical argument cannot always be used for the practical world. These philosophical thoughts just don’t translate effectively to every idea or science. Just like “error rates,” are best suited for chemistry and machines, and should not be applied to a practical or applied science. Falsifiability should not be applied to an observation or applied science like Fingerprints.

Our next Leap of Logic is # 6, “The 100% sure statement reveals a problem in Fingerprints”

Now wait a minute, this is a huge leap of logic. Confidence shows a weakness? That doesn’t fit does it? And just like a lot of these other statements, the two do not go together (false dichotomy) and show why this is another leap. We have already busted the myth that “there is nothing absolute in science” in the practical world, so it cannot follow that if you say you are 100% sure about something that you are automatically incorrect. Especially when the basis is the random creation of friction ridge skin. That is a leap of logic into a false dichotomy.

Leap of Logic #7, “They cover up mistakes, so that shows that Fingerprints are not reliable” -

If an organization is reluctant to admit or reveal mistakes it doesn't naturally follow that they are questioning the validity of what they do. Generally, it just means they would rather not have their mistakes aired in public. First, it certainly doesn't mean that mistakes cannot be made because, at least internally, they are admitting to a mistake. Second, it generally doesn't mean that they think that their people doing that discipline are infallible. It is a leap of logic to think that if a mistake is not publicly acknowledged by an agency, that it means that the entire discipline thinks that mistakes cannot be made or that the process is not reliable anymore.

Leap of Logic # 8, "Fingerprint experts make mistakes, therefore Fingerprints are unreliable"

Look at these statements:

"...the fingerprinting community has attributed errors to incompetence, rather than to the inherent unreliability of their craft, in order to maintain the pretense of infallibility in the face of irrefutable evidence that misidentifications have occurred."
12 Mistakes are made, therefore the science is unreliable? Isn't it obvious where the leap of logic is here? Look again at that sentence. There are so many things wrong with that sentence and its propositions it boggles the mind. Can you find all the fallacies in that statement?

The fingerprint expert says, "Fingerprints are infallible", the critic hears "experts can't make mistakes." Conversely when the critic sees that an expert made a mistake, the critic concludes that the science and methodology are somehow flawed and that the process is inherently unreliable. Huge leaps of logic that are unscientific, illogical, and frankly, should not be looked upon as having any viable substance.

That is the purpose of the HEADLINES that I have been showing you. These statements are controversial so they get the press, like the very noticeable headline, "Two Snowflakes Found to be Alike!"- But it is easy to see in the actual story that there is no substance to the boast.

Anytime the critic makes these leaps of logic and statements of false dichotomy - one of us should be there to say - "NO, that is not what that statement means." We should be there to say- "I know it serves *your* personal purpose, to attempt to discredit Fingerprints, but that is not what is said nor is it even implied or suggested." "You are wrong. Your conclusion is mixing two concepts and it is a leap of logic."

Now for later, here is your assignment: look at each of these statements, and the numbered assertions, and decide upon your perspective and formulate your responses.

Oh and your future homework is this. Every time you hear someone make one of these statements like: "You said Fingerprints are infallible so that means that fingerprint experts don't make mistakes" or "There is a zero error rate for fingerprints so that means that fingerprint experts won't admit to making mistakes" or any one of the above statements; that you challenge the person spouting them.

These approaches, when you examine them carefully, are really bizarre and have no real merit. Don't let them get away with it without a logical response. Don't let them get any momentum for their false dichotomy, intentional ambiguity, or contextual twist. Stand up and affirm: "That doesn't make sense! Or: That thought is interesting but your conclusion doesn't follow. Or: That is a philosophical argument that isn't relevant in the practical world. Or: That is a bizarre and unscientific leap of logic!"

1 The Detail, issue #174, Dec. 13, 2004, They Keep Putting Fingerprints in Print, S. Scarborough

2 Live Science, <http://www.livescience.com/>

3 great moments in science, <http://www.abc.net.au/science/k2/moments/s1579301>, as reported by Dr. Karl Knuszelnicki; unsure of the original source of the other statements.

4 Original article in the Toronto Star, Dec. 17, 2005 by Jay Ingram, www.thestar.com and the Wilson Bentley Newsletter Archives, <http://snowflakebentley.com/news2.htm>

5 Earth & Sky, <http://www.earthsky.org/shows/listenerquestions.php?date=20040131>

6 Photos of ice crystals.

7 Column: Forensics: Lessons from the Brandon Mayfield Case, William C. Thompson; Simon A. Cole, Champion, April, 2005

8. Sounds familiar doesn't it?

9 Wikipaedia, Karl Popper.

10 ibid

11 ibid

12 Column: Forensics: Lessons from the Brandon Mayfield Case, William C. Thompson; Simon A. Cole, Champion, April, 2005

RE: Infallible

“Clueless Fingerprints”

by David Faigman

Science & Law Blog, September 25, 2006

http://www.lawprofessors.typepad.com/science_law

The Weekly Detail, a newsletter for the latent fingerprint community, reported a talk by Steve Scarborough in today's edition. The talk, the first of two parts, was given to a large group of latent examiners. You can subscribe to The Weekly Detail here. Since it appears to be taken from an oral presentation, the talk rambles somewhat and is hard to appreciate from a distance. Nonetheless, it is instructive, since it represents some of the thinking (or lack thereof) that is going on in this community. His main argument appears to be in response to those who doubt the “uniqueness” of fingerprints. Along the way, he seeks to defend claims of “infallibility” in the process of fingerprint identification, though he argues that such claims do not mean that examiners don't make mistakes. The two issues of uniqueness and error rates must be kept separate, though Scarborough does not always accomplish this well.

First of all, on the question of uniqueness. Most critics do not challenge the uniqueness of fingerprints. It is a red-herring; it is both scientifically uninteresting and legally irrelevant. The uniqueness of fingerprints says absolutely nothing, NOTHING, about the ability of examiners to reliably and validly make fingerprint identifications between partial latent fingerprints and the known prints of a suspect or defendant. In theory, every person's face is unique, but this fact, if it is so, does not tell us whether reliable and valid identifications can be made when comparing the nose and ear of an unknown person to the full face of a known person. Empirically, the hypothesis that fingerprints are unique is separate and largely unrelated to the hypothesis that fingerprint identifications can be made from partial latent prints.

Please, can we all just stop talking about whether fingerprints are unique. Nothing follows from the fact, if it is so, that they are unique. I, for one, willingly (nay, enthusiastically), concede for the sake of all further argument that fingerprints are unique. Now, let's move on.

The second issue presented, and the one of great legal significance, is the error rate of latent print examination. Claims of “infallibility” pertain to whether fingerprint examiners are 100% accurate. To his credit, Scarborough admits that fingerprint examiners make mistakes, despite apparent comments to the contrary:

In all the training classes and presentations and testimony, the FBI has never once said that there are no mistakes made by fingerprint experts. In fact the FBI, in warnings about effective verification, mentions mistakes that they are run across in submitted cases from local agencies. The FBI has always promoted verification, consultation and double checks to assure that no mistakes in fingerprint identifications are made.

The fact that mistakes are possible, then, requires some level of quality control, which might or might not be effective. It should also result in attempts to measure the rate of those errors. On the general issue, he states as follows:

The FBI instructors stress verification and other quality control measures. They promote and teach verification to prevent mistakes. If people didn't make mistakes with regard to Fingerprints ... then we wouldn't need verification. But we all know that human beings make mistakes, and it goes without saying that humans are not infallible. The assumption that when the FBI fingerprint expert says that they are 100% certain about the ID, that they are implying that they don't make mistakes, is a grand leap of logic.

At the end of the above quote, the waters get muddied. Scarborough is saying that a claim of 100% certainty by a latent print examiner is not a claim that they are 100% accurate. Fair enough. But what, then, is the claim of 100% confidence based upon, if not some idea that the error rate associated with the technology he or she used is “vanishingly small.” Indeed, I don't know of any bona fide scientist who would claim 100% confidence in a technique/process/machine that itself did not have 100% accuracy. But, in any case, how do examiners know that their error rates are so low that they can have 100% confidence in their conclusions? It cannot be made on the basis of the uniqueness-of-fingerprints hypothesis, since that hypothesis has nothing to do with the hypothesis of latent examiner validity (see above). It is not based on published research, since precious little exists. It cannot be based on experience

-- other than casual anecdote -- since no systematic attempt has been made to catalogue errors.

So, I am very heartened to see that a prominent latent examiner has admitted the existence of measurable error rates associated with latent fingerprint procedures. It's about time that researchers began to actually measure those error rates.

--- DLF

(David Faigman)

RE: RE: Infallible

by Steve Scarborough

With regard to Mr. Faigman's comments on Uniqueness, I applaud his call to no longer challenge uniqueness. I think it serves his agenda well to separate this out and call it "uninteresting and legally irrelevant." However, uniqueness actually goes to the core of comparative examinations. The reason that a comparative expert, be it a fingerprint examiner, firearms expert or forensic document examiner, can conduct examinations is the issue of uniqueness. Precisely because fingerprints are unique, is why fingerprint comparisons can be made. However, I do agree with Mr. Faigman when he states "fingerprints are unique." "Now let's move on."

Error rates:

Faigman makes the same mistake that I am talking about in "Infallible, Part 1" and showing as a Leaps of Logic. For example: "Claims of infallibility pertain to whether fingerprint examiners are 100% accurate." I think that if Mr. Faigman read and understood the article, he would recognize that these two issues are separate and to combine them is a leap of logic that does not follow facts, statements, or empirical knowledge. His comments seem to only serve the agenda of a lawyer looking to make a point.

Mr. Faigman asks the question, "...how do examiners know that their error rates are so low that they can have 100% confidence in their conclusions?". We know based upon the Billions of comparisons made over the last 100 years and the extremely low rate of error. Even considering the flawed number promoted by Cole that there has been 22 reported errors in 100 years; the extrapolation of that number compared with the billions of fingerprint comparisons and searches using AFIS computers still

makes the error rate astronomically low. In short, this confidence is based upon a large volume of empirical evidence.

I would suggest to Mr. Faigman that he study the extremely thorough and cogent work by Kasey, Wertheim, Glenn Langenburg, and Andre Moenssens in the JFI, Jan/Feb issue of 2006. This article is the best examination of error rates for fingerprint comparisons to date. This article shows that humans are fallible, errors can and do happen, and that the examinations are only as valid as the examiner performing the examination. The research for the article shows the importance of confidence level and it's relationship to examination conclusions. The JFI article also highlights the extremely low error rate for highly experienced examiners that follow accepted methodology.

One point I made in "Infallible, Part 1" is that while it is all well and good to have abstract theoretical discussions by inexperienced and remotely detached laymen about these issues, it is a whole different world than that understood by the comparative discipline experts who are immersed in day to day practical examinations.

Perhaps Mr. Faigman should remain "safe" within the "confines of academia" instead of lashing out at those who valiantly brave the real world. (http://www.lawprofessors.typepad.com/science_law/he)

Steve Scarborough

LPE



Presidents Message

'The Dog Days of August' is an old baseball term but it also describes our profession at this time of year. The long hot days of summer with our co-workers on vacation leaving those of us left behind to pick up the slack and handle the increased workload. Lifting prints in the heat with the sweat running from your gloves and your print tape melting on the hot cars reminds us why we should have picked this time to be on vacation. That being said there are many advantages to this time of year such as the longer daylight hours and not having to bundle up with three layers of clothes for that early morning call out.

Speaking of "Dog Days" our first SCAFO Family Barbecue in August really went to the Dogs. After feasting on delicious barbecue prepared Chuck Wagon Style by 'Santa Maria Barbecue Company' we were treated to an exciting presentation and exhibition of the benefits of 'Scent Evidence' by Joe D'Alurra and Ted Hamm from the Los Angeles County Sheriff's Department. Watching the 'Scent Dogs' work was an informative addition to the event and proved to be a big success with the kids! The Dogs demonstrated why we can't escape the keen nose of our canine friends. The barbecue was a chance to get to meet fellow members and their families in a more relaxed setting. It was also a great opportunity to visit the Los Angeles County Sheriff's Museum where retired Lt. Judy Carlson volunteered her time to open the Museum especially for our members. I hope that an event like this can become an annual tradition for SCAFO.

Your SCAFO Directors have been busy putting the finishing touches on the Training Seminar scheduled for the end of September. Vice President Craig Johnson has had many sleepless nights worrying about all the details necessary to make the seminar a success. When you read this message the seminar will be behind us and a new set of Board members and Officers will be elected and planning next years SCAFO agenda.

Our last meeting this year will be December 9th at Portofino Italian Restaurant in La Habra. We have had many great meals and meetings at this location so mark your calendar and plan to attend.

I want to take this opportunity to thank you for allowing me to be your President this year and a special thanks to all the members who volunteered and helped make our meetings and events a success this year. Next year will be our 70th year as an organization representing professionals in the field of Fingerprints and should be a milestone with an exciting agenda on the drawing board. This is your organization only survives because members get involved and volunteer their time. Board members need your thoughts on how to improve our meetings such as training ideas and speakers. We also need your involvement in encouraging your co-workers to join and become part of our family.

Fraternally yours,
Susan Garcia

Employment Opportunities

Police Identification Specialist Hayward Police Department

Final Filing Date: Open until filled; application screening may begin as early as November 10

Salary: \$4,384-\$5,318 monthly

Minimum Qualifications: Three years progressively responsible experience in print collection, development and identification, combined with work in crime scene processing. The ability to obtain and maintain IAI Latent Print and Crime Scene certifications within two years of appointment.

Contact: (510) 583-4500; Hayward Human Resources, 777 B Street, Hayward, CA 94541-5007; or online at www.hayward-ca.gov

Fingerprint Specialist (Part-Time / Contract Position) – Bureau of ATF

Final Filing Date: Open Until Filled

Salary: To Be Determined – this contract would be for up to 120 days, with a possibility of one extension for 120 days Minimum

Qualifications: The contractor should be a court-qualified examiner with the skills, knowledge and abilities to examine, process and evaluate various items of physical evidence for latent prints, and perform comparisons to the known exemplars. Duty location is in Walnut Creek.

Contact: Richard A. Grzybowski, Chief, Identification, ATF Forensic Science Laboratory – San Francisco, (925) 280-3641 or richard.grzybowski@atf.gov

MINUTES OF AUGUST MEETING

DATE: August 5, 2006

LOCATION:
Los Angeles County Sheriff's Academy

HOST: Craig Johnson & Sue Baker

SECRETARY:
Mari Johnson

PROGRAM: Dog Day Afternoon
Speakers Joe DeAlura and Ted Hamm

CALL TO ORDER: Meeting called to order by President Susan Garcia

PAST PRESIDENTS: Dell Freeman (1973), Steve Tillmann (2002), Bill Leo (1996), and Bob Goss (2001).

EXECUTIVE BOARD: Susan Garcia, Craig Johnson, Mari Johnson, Lisa DiMeo, Sue Baker, Sarah Watson, Bill Leo, Steve Tillmann, Marvin Spreyne, Amy Hines..)

EXECUTIVE BOARD ABSENT: Clark Fogg and Amy Hines

Members and guests present: 49

OLD BUSINESS:

Second Readings:

Lacy Johnson

Motion to accept: John

Padroza

Second: Marvin Spreyne

Swear Ins by Past President Bob Goss:

Lawrence Rodriguez, Santa Barbara Sheriffs Dept.

Jackie Thompson: Los Angeles Sheriff's Dept.

NEW BUSINESS:

OTHER: The elections for the 2007 Executive Board will occur at the 2006 Training Seminar during the General Session of Saturday September 29th. If you are interested in running for a seat on the Executive Board please contact Clark Fogg at cfogg@beverlyhills.org and he will tell you what seats are open and what being a board member entails.

We still have plenty of seats available for the 2006 Training Seminar so there is still time to register. On that note please do not send an e-mail to me or any board member as a way of registering. The only way we will except registrations is by you sending in a registration form. Thank you in advance for that.

ANNOUNCEMENTS:

Riverside County District Attorney's Office is looking for a Forensic Technician 1 in the near future. This information can be found on the Riverside County web site.

FYI SWGFAST is continuing on building the guidelines for fingerprint identification. They are in the process of looking at total blind verification and investigations resulting from someone that does not make a print that was already made by the person doing the first. Bill Leo wanted everyone to know about this and if you do not agree with this to put it in writing to the SWGFAST. The outline of this guideline was printed in the last issue of the JFI (Journal of Forensic Identification) for input from the fingerprint community. So take a look at this. The SCAFO Executive Board will be writing a letter in opposition to this guideline and sending it to the SWGFAST board.

ATTENDANCE DRAWING \$25.00:

Edward McLean

DOOR PRIZES:


Provided by Michele Triplett, donated 2 copies of her book, Fingerprint Dictionary; Sarah Watson, Sue Baker, DJ Designs and Craig and Caren Johnson

MOTION TO ADJOURN:

Bob Goss

Second: Steve Tillmann

MEETING ADJOURNED: 1509 hours



**Upcoming
SCAFO Meeting**

February 8, 2006

Location and Speaker still to be determined

MINUTES OF SEPTEMBER MEETING

DATE: September 30, 2006
LOCATION: SACAQMD Office
HOST: SCAFO Annual Training Conference
SECRETARY: Mari Johnson
CALL TO ORDER: General Session meeting called to order at 1120 hours by President Susan Garcia
PLEDGE OF ALLEGIANCE led by Past President Don Fandry.

ATTENDANCE:

PAST PRESIDENTS Present: Donald Fandry (1989), Clark Fogg (1994), Alan McRoberts (1991), William Leo (1996), Robert Goss (2001), and Steve Tillmann (2002).

EXECUTIVE BOARD Present: Dennis Uyeda, Susan Garcia, Craig Jognson, Mari Johnson, Sarah Watson, William Leo, Steve Tillmann, Clark Fogg, Marvin Spreyne, Amy Hines and Debbie Stivers.

EXECUTIVE BOARD Absent: Lisa DiMeo and Sue Baker

Members and guests present: 131

OLD BUSINESS:

Second Readings:

Nancy D. Torres

Timothy Sutcliffe

Motion to accept: Steve Tillmann

Second: Marvin Spreyne

Swear Ins by Past President Bob Goss:

Mark Waldo of Santa Ana Police Dept.

David Martines of San Diego District Attorney's Office

Sheri Orellana of Pomona Police Dept.

OTHER: Clark Fogg went over the election procedures for the 2007 SCAFO Excutive Board to the membership that was present. Clark introduced the people running for the Excutive Board and the spots they were running for.

Ballots were passed out to the membership and the membership was asked if there were any nominations from the floor and if so to fill out a ballot.

There were no nominations from the floor. Clark Fogg asked for a motion to except the 2007 SCAFO

Excutive Board as it stood. The 2007 Excutive Board is Craig Johnson President, Marvin Spreyne First Vice President, Amy Hines Second Vice President, Mari Johnson Secretary, Debbie Stivers Sergeant at Arms, four Directors Lisa Jackson, Amy Adams, Terri Eklund, and Mariah O'Donnell, Bill Leo Historian, Lisa DiMeo Treasurer, Clark Fogg Parliamentarian, Steve Tillmann Editor, and Susan Garcia Chairman of the Board. Rodigo Viesca Motioned and Robert Goss 2nd the Motion. All was in favor and the 2007 Excutive Board elections were closed.

NEW BUSINESS:

First Readings:

Terry Ybarra of Riverside Sheriff's Dept

Recommended by : Marvin Spreyne

Tina Young of Grossmount College

Recommended by Rodrigo Viesca

Nicole Mendenhall of Chula Vista PD

Recommended by Rodrigo Viesca

Dian Shear of Burbank PD

Recommended by Victoria Payson

Leslie Howowanec of Santa Ana PD

Recommended by Margarita Eiler

OTHER:

The 70th Annaversery of SCAFO is in 2007 which will be held during the Past Presidents meeting in April. Bill Leo and Steve Tillmann are hosting the meeting and are looking into places to hold the meeting. A couple of locations that are being looked at are the Midway Aircraft Carrier in San Diego and a dinner cruise. If you have any suggestions as to where you would like to see this huge event take place contact either Bill Leo at wleo@lasd.org or Steve Tillmann at satillman@lasd.org.

ANNOUNCEMENTS:

Carlsbad Police Department has job openings so visit their website. Also, the Los Angeles Sheriff's Department Crime Lab will be posting some openings for Forensic Identification Specialist 1, more will be forthcoming when that happens.

MOTION TO ADJOURN:

Steve Tillmann

Second by Michael Robinson

MEETING ADJOURNED: 1115 hours

"Every man owes a part of his time and money to the business or industry in which he is engaged. No man has a moral right to withhold his support from an organization that is striving to improve conditions within his sphere."

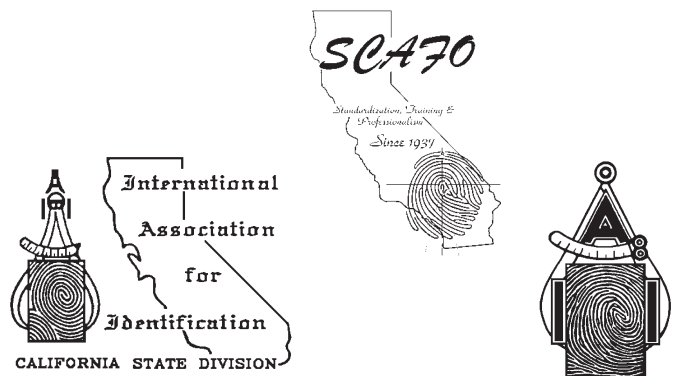
- President Theodore Roosevelt, 1908

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AVAILABLE TRAINING

**COURSE TITLE
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INSTRUCTOR DWANE HILDERBRAND

DATES APRIL 2 - 4, 2007

COST \$350.00

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**SCAFO Members:
Get "yourname@scafo.org".
See instructions on the
website's email page.**

-- Upcoming Events/Schools/Seminars--

- February 8, 2007 S.C.A.F.O. Meeting
- February 20-22, 2007 Latent Print Development Techniques
Solano Co. Sheriff's Dept,
Fairfield
- March 5-9, 2007 Fingerprint Identification and Classification
Sacramento Regional Public Safety Training Center
- July 22 - 27, 2007 Standardization, Training &
Professionalism International Association for Identification
San Diego, CA

SCAFO

*Standardization, Training &
Professionalism*

Since 1937



*Southern California Association of Fingerprint Officers
An Association for Scientific Investigation and Identification Since 1937*