

## **‘Fingerprints in print - an opportunity missed?’**

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As a police officer for thirty years totally convinced of the infallibility of fingerprints I have spent the last 8 years fearing that my daughter would be destroyed by exponents of the ‘science’ I so revered. Despite this I remain a staunch defender of the science of fingerprinting.

This paradoxical position has arisen because so many experts of honesty and integrity have in their support for Shirley proven that in the right hands latent print examination is a legitimate forensic science and a major crime prevention and detection tool.

While a supporter however I am not naive enough to believe that all is well in the world of fingerprints as the cases of Shirley McKie and Mayfield clearly show and over the years I have often been saddened at the standard of debate between the experts and their critics.

This is why I was so impressed on reading the recent ‘CAC News’ article ‘Fingerprints in Print’. (<http://www.cacnews.org/pdfs/4thq04.pdf> - page 14) Here was a fingerprinting organisation sitting down with its critics and attempting to highlight a number of important issues for the profession arising out of one of the highest profile mistakes ever.

I did not agree with every word - the article was judgemental in places and plain wrong in others - but a meaningful debate was taking place. People were listening.

Many of my concerns arising from Shirley’s treatment over the past 8 years were being focused on and I looked forward to a measured response by the profession.

In the event in Steve Scarborough’s article I was faced with something different and this concerns me greatly. (<http://www.clpex.com/> - **Weekly Detail 13. 12. 204**)

While accepting fully Steve’s right to respond as he sees fit and without taking away from the eloquence and validity of many of the points he makes they were lost in an approach that arguably gave credence to the article’s accusations that,

*“The reaction from the fingerprint community, at least as assessed from web chatter, has been largely defensive; circle the wagons against the attack that is sure to come.”*

One sentence in Steve’s response in fact leaves me doubting if my daughter’s years of trauma will ever lead to international debate and change.

*“For the future, fingerprint examiners will not be taking the advice of the CAC article’s authors (or is it Simon Cole’s advise?) to disabuse ourselves of the basic tenants of Fingerprint Science. Fingerprints **are** absolute and infallible. Any scepticism, if warranted, lies in the competence of the forensic scientist bringing the identification forward. This same scepticism should be applied to the pseudo experts and false authorities bringing forward these criticisms.”*

As I re-read the articles I struggled to relate to his assessment of the article as,

*“sensationalism and hyperbole...degrading the science and predicting the end of fingerprints as a useful forensic tool” and to identify the “exaggerations and embellishments spewing from the few quacks purporting such mendacity.”*

My major problem does not lie with the wording of the article or its sentiments however but with its futility as a catalyst for progress and change at a time when I believe your profession should be taking a long hard look at lessons to be learned from the Shirley McKie and Brandon Mayfield cases. The self serving nature of the present debate is destructive and extreme language alienates others, obscures understanding and blocks progress and change. At times I felt you should also be aware of falling victim of False Authority Syndrome.

What occurred to me reading both articles was that it was time to listen to the more moderate voices within your profession who are aware that important issues require to be addressed and that debate, understanding and action for change is the only way forward.

While accepting that self serving spin is not the prerogative of any one of the protagonists Steve's article unfortunately lays out some views that I have heard before and I believe does fingerprinting no favours.

He takes issue with statements like,

*“This suggests that the **science / art** (my emphasis) of fingerprint comparison is perhaps not as reliable as conventional wisdom would have us believe...”*

Given that the Mayfield, McKie and Cowans cases are interfaced with claims of a 'next to zero rate' of errors can Steve really wonder at doubts being raised about reliability? For most lay people it is reliable results that matter more the theoretical reliability of a science.

I feel that errors are opportunities to deal with serious issues like training, procedures quality control, culture and worldwide standardisation. This does not involve admitting that the science is wrong but does demand honest admission of mistakes with enquiry and effective remedial action.

The CAC article was not calling the science into question but challenging experts and those who represent them to draw back from the dangerous tenet of infallibility.

As you will have gathered I read the article in CAC with great interest feeling that it raised many issues that required to be looked at without being unduly judgemental. Having suffered 8 years of cover up and deception from SCRO I appreciated a 'fingerprint' organisation sponsoring such an article, opening the way for useful debate and above all tentatively suggesting solutions to the problems haunting fingerprinting at present.

In truth the CAC article raises a number of issues important to the future of fingerprinting as a forensic science and as the authors conclude there are a lot of 'uncomfortable' questions to be asked and answered.

The authors were careful to qualify what they were saying,

*“Any discussion that depends mainly on media reports must be prefaced by the disclaimer that we have no specific knowledge of the actual events of the case. As such, our discussion must be limited to general topics inspired by the case at hand, and any opinions we might have could change with additional information”.*

Importantly they accept that the answers to many of their specific doubts about FBI practice must await the findings of the *‘International Panel of Experts’*.

While it is not possible to review the whole article I would like to join in the debate by highlighting some of the issues that particularly interest me.

As an acknowledged supporter of fingerprints as a science I, like Simon Cole, have the greatest of difficulty with the ‘zero’ or ‘next to zero’ error rate claims made by the FBI and incidentally the SCRO. The article properly raises this issue as being critical to the debate.

Claims of a ‘zero error’ rate do fingerprinting no favours and have no place in forensic science.

The fact that each individual has a unique set of fingerprints in no way leads to the conclusion that all identifications are correct and that ‘zero error rates’ are possible.

As Simon Cole states in the CAC article, *“The statement confuses the general potential for individualization with the specific analysis of the evidence in each case.”*

As I refer to later the myth of infallibility has had much to do with issues like error rates.

The CAC article also performs a service in highlighting issues like the impact of technology and culture.

*“that the relatively recent (in the history of fingerprint comparison) introduction of the AFIS database may, in fact, contribute to erroneous identifications”*

Is it so outrageous to suggest that the ability of new technology to bring a limited number of similar reference prints before the expert brings psychological and emotional pressures into play that we have yet to fully understand?

Indeed in highlighting just how many cultural, psychological, technical, emotional factors and political forces are at play when an identification is made the article has done us all a service.

Ongoing research into these factors, particularly in the visual sciences, is proving that sometimes what we see is what we want to see or feel we should see and that at an even more subtle level there are unconscious forces acting on our psyche.

Are the questions asked of the FBI unfair or unreasonable?

Who can argue with the authors when they observe,

*“We can’t help but wonder how a print that previously was sufficient to make a “100%” identification suddenly loses all its value. Does the fingerprint community have a consensus document that articulates specific criteria that determine “value?” How is it that it suddenly lost all value when the Spanish matched it to another viable suspect? As uncomfortable as these questions may be, they must be addressed.”*

As more than one observer has noted the Mayfield case has many disturbing similarities with the Shirley McKie case. The authors could well be speaking of the latter case when they say,

*“What is stunning about this case is that apparently four different examiners who were not only well-qualified, but highly experienced, and well-respected within the fingerprint community, apparently made an incorrect identification on the same print.”*

It would be interesting to know if any common cultural, psychological, procedural or political factors were at play within the SCRO and FBI that led to the ‘mistakes’. Undoubtedly there are lessons to be learned and only through challenge and debate will they be learned.

Throughout the article important questions are asked,

Does, *“The culture and practice of friction ridge analysis leave(s) no room for ..... uncertainty;*

Does, *“Any attempt to move toward a statistically based assessment of strength cast(s) some aspersion on the current state of the practice”?*

Can anyone really argue with the conclusion that without *“stated objective criteria, it is impossible for two examiners to have an intelligent discussion about why they might disagree about a certain print comparison”* or have *“ an effective post-mortem in cases where an error is exposed?.”*

While I found myself disagreeing with Simon Cole’s sweeping assertion *“ that the way the fingerprint community traditionally handles mistakes is to disown or excommunicate the individual who made the error”* I found myself nodding in agreement when he stated, *“ that although not everyone in the American fingerprint community is necessarily enthusiastic or supportive of the self-appointed leaders, their discontent has no voice”.*

Where are the IAI and Fingerprint Society in this debate. Their silence is deafening and despite the former having a long and honourable role in maintaining and improving training and procedures both have been spectacularly ineffective in taking action against organisations that have been proved either unwilling or powerless to act in the face of overwhelming evidence of culpability.

Although charges of generalisation can be laid against the authors their concerns about the effect on individuals of certain organisational cultures appear genuine and important.

Of course the article contains some spectacular conclusions perhaps calculated to alienate the expert.

*“Simon (Cole) opines that fingerprint matches should be presented, not as scientific determinations, but as opinions based on experience the practitioner has developed by looking at finger-prints. It should be made clear that our collective belief that a match is individualizing, is just that, a belief, and cannot at present be quantified in any meaningful way.”*

This does not however excuse totally rejecting his argument or a thoroughly thought provoking and valuable article.

The truth is many other questions raised in the ‘CAC’ article have a vital bearing on the profession’s future. You can ignore or attempt to dismiss these issues but they will come back to haunt you. Surely experts should be embracing challenge and learning from it not avoiding and deriding it.

In closing I would identify two major issues that require to be tackled immediately.

Despite many genuine attempts at unification over the years latent fingerprint examination worldwide is not a coherent science and practice. Standards of selection, training, quality control and competence vary country to country and even within countries.

We have experts using quantitative and qualitative approaches who eschew the others approach. We have experts claiming to be ridgeologists who frankly appear to be ‘point counters’ and we have ‘point counters’ who claim that change is unnecessary because what they do is ridgeology anyway. When we examine this apparently coherent body of science and scientists coherence is the last thing we are faced with.

The other major issue is the myth of infallibility that is still alive and well and is exemplified by ‘zero’ or ‘near to error’ claims. Simon Cole is aware of this when he says,

*“... in spite of the claim that the FBI has made only one error in 79 years (Kramer, May 25a, Wertheim, May 26), many more errors exist than have been exposed.”*

Infallibility has turned out to be a curse for fingerprint examiners. As we all know it is through fighting to be accepted, making mistakes and experimenting that our strengths and weaknesses are revealed and our true worth established.

It is important to escape the fiction that in previous times the error rate has been next to zero. This is no longer sustainable and does not need to be. What the public need to be assured of is that the science is aware that errors are being made and that something is being done to remedy the situation.

I feel at times that the profession is trying to do the latter without admitting the former – skewed logic that rests uncomfortably with me.

A simple sentence in the CAC article rings a lot of bells for me and hits at the very heart of the problem.

*“Pete offers that any admission of fallibility in fingerprint identification makes, not only the examiners, but the legal and judicial community uncomfortable. Even defense attorneys are used to accepting an identification as absolute. Any introduction of uncertainty, much less a quantification of it, turns everyone’s world upside down **and threatens the basis for thousands of convictions.**”*(my emphasis)

Just how uncomfortable it has made the justice system, police and politicians remains to be seen and this latter point might yet explain their extreme reluctance to join in any public debate.

The whole of the fingerprint profession is in fact suffering from a very large dose of uncertainty and as any mental health expert will tell you this can be extremely unsettling as your world is indeed turned upside down. Depression and out of character behaviour is often the result.

The fact is that some experts will always be effective and efficient, others will remain limited in their expertise and some will never be effective. While it seems sensible to retain the first and continue to educate and train the second it is important to eliminate the third and ensure that an overarching system of checks and balances is in place that protects everyone in the system including the experts..

Perhaps the whole debate is reduced to two simple facts.

- Friction Ridge Analysis is a science
- Fingerprint experts make mistakes.

As your boss says Steve, *“As a forensic scientist we have to be open to the possibility that our science can be proven wrong.”*

This seems good advice to me.