

## The "Pincer Attack" on Forensic Science

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Many experts, in the various fields of forensic science, are familiar with the term "Junk science", that non-scientists, mainly lawyers, uses in order to discredit these fields.

The discredits ignore the fact that these fields are based on Physics, Chemistry, Metallurgy, Material design, Biology and other fields of science, or maybe they discredit them as "junk science" as well....

But now, there is another "wing" who describes forensic scientists as "biased". No matter what you say to your defense, "I work alone, I don't read the papers, I don't listen to the radio & TV", you are "biased" and if you'll deny, they'll tell you that you are biased but not aware to your biasness... (Go challenge such an argument)

In this article, I would like to address both claims and to prove they are based on "non truth" facts. I'll start with the first "accusation", the "junk science" claim.

In an article name "The Field of Firearms Forensics Is Flawed<sup>2</sup>" the authors basically claim that all firearms examiners are charlatans, in the worst case, or just poorly mistaken, in the "best" case. For example, they describe the firearms examiners work as "a field built largely on smoke and mirrors". (Did I mention charlatans?)

They also claim that "Science is not on their side", so I guess all the knowledge I have in Physics, Chemistry, Metallurgy and Material design is "junk science"....

Furthermore, they say that only "a *researcher*, who is professionally trained in experimental design, statistics and the scientific method" can be an expert in the field of firearms examination. Now, that confused me totally. You see, beside being a qualified firearms examiner (I have a certificate signed by Brigadier General Yoseph Almog, then the head of the Israeli DIFS - Division of Identification and Forensic Science, to prove it) I have also a **Research degree level B** (equivalent to an assistant

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<sup>2</sup> **The Field of Firearms Forensics Is Flawed** – by David L. Faigman, Nicholas Scurich and Thomas D. Albright, Scientific American, May 25 2022

professor's research degree), which I received mostly from researches based on.... Firearms examinations! So, am I qualified as an expert or not?

Later on, they write "Only research scientists have the wherewithal to counter the claims of practitioner-experts.", so can I counter myself? And want it cause me to lose my mind?

They demand that courts will use the services of "anti-expert experts. Such experts are now appearing more and more in courts across the country, and **we count ourselves proudly among this group.**" (The emphasis is mine – L.N.)

Well, let's see what are the qualifications of those "experts":

**David L. Faigman** is chancellor and dean and John F. Digardi Distinguished Professor of Law at the University of California.

**Nicholas Scurich** is a professor with a joint appointment in the Department of Psychological Science and the Department of Criminology, Law and Society at the University of California.

**Thomas D. Albright** holds the Conrad T. Prebys Chair in Vision Research at the Salk Institute for Biological Studies, where he is a professor and director of the Vision Center Laboratory.

Maybe I am blind, but I don't see any relative scientific background of these gentlemen, so how can they disqualify someone with engineering background just like that?

In another statement, they say "the criterion for a life-shaping decision is based not on quantitative standards but on the examiner's subjective experience.". Well, that's a very good question many critics raises, there is one thing they don't "raise": how to create such a "quantitative standard"?

Is testing thousands of weapons, of the same make and model, is enough?

In that case I can refer them to a case investigated in Germany where 5,000 police issued pistols were collected, test fired and examined, in order to identify ONE pistol which fired a lethal bullet and what do you know, they found it and the shooter admitted.

Or maybe sorting and comparisons of 114 cartridges, all fired from Galil AR, in the famous case of the massacre at the Cave of the Patriarchs which I investigated, to 4 different weapons, one of them remained unknown?

Maybe the results of the annual proficiency tests made by an independent institution, which are sent to labs all over the world, and the different results are compared and distributed to all participants with the correct results?

And the big SCIENTIFIC question is: how you conduct a test to establish a quantitative standard when there are so many variables you need to consider: The gun makers (sometimes there is more than one) & models, the different types of ammunition (different loads, different bullets), the different method of shooting (single, semi-automatic, automatic) and the differences between the ways the gun is held: firm, loose, tighten to the shoulder, under the shoulder etc.?

The last thing I have to say on this matter is: It is OK to criticize a certain method, but it is expected from the critic to have basic knowledge of the method and its foundations (other fields of science in this case) and maybe, just maybe, to sit next to an examiner, see what he, or she, is doing and ask them questions on how and why they come to their conclusions, and let's not forget that lawyers, especially defense ones and those who assists them, have an agenda to "pull the rug" under the foundations of forensic science, which unfortunately for them are the foundations of our world.

Now to the second "arm" of the "pincer" the "you are biased" thing. I don't say that some of the experts are not biased, there is the famous case of the Madrid terror attack in a train station, where an American finger prints expert "found" a comparison to an American citizen. Why the investigators did not check the suspect's movements to see that he did not leave the US around the time of the attack and by that eliminate him as a suspect, I don't know, the bottom line is someone made a grave mistake!

I can tell that the finger prints from the scene and the suspect's form were sent to the Israeli DIFS and an Israeli expert, by the name Elli Dayan, concluded a negative comparison, meaning the finger prints did not match those on the form! The examiner was not aware to the details of the case. (That is the usual case in Israel)

Base on this case, the wrong identification, and other similar cases, there is now a trend to state all forensic examiners are biased, one way or another....

The people who raise this "charge" say that we are influenced by the news, even if we are not expose to them, to pressure from our superiors, even if there is no such one, and other variables that might send you of course. Now, even if you swear on your life that you are not biased, they say that "you are, but you are not aware of it" and with that being said, you can't even argue.

The fact that your work is examined by a second examiner, who works totally independent, and by the head of the lab. (That is the practice in Israel DIFS) does not matter, the fact that you are examined **annually** at a proficiency test and your results are compared to those of hundreds, or even thousands, of other experts from your field and then sent to your superiors for evaluation, does not matter, the fact that your own command tests you by entering a "bogus" case file, which they know what the results should be, does not matter, you are always "biased" and nothing you'll say or do wont change that. How one can compete with that?

An interesting fact is that the critics of this "arm" are also not scientists themselves and they lack the scientific background in basic science like Physics and Chemistry, yet they see themselves fit to challenge others with scientific background.

My conclusion, and yes "I am biased", is we are facing a coordinated Pincer Assault on the various fields of forensic science and it is led by elements who can only profit if these fields will disappear or will be challenged at courts. Defense lawyers, who can't

afford having a counter expert on their side (usually because of funding problems), law professors who doesn't have the knowledge how to teach their students ways to examine forensic evidence and try and challenge them and the experts testifying on them and those who call themselves as "anti-expert's experts", they will all gain if the fields of forensic science will cease to exist and expert testimonies will be questioned with suspicious eyes.