"Subjective" – The Misused Word

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In 1999, while reading the defense motion for a Daubert hearing in U.S. v Byron Mitchell, I repeatedly saw fingerprint identification referred to as subjective and unreliable. Over the years I have heard some latent print examiners take the position that friction ridge identification was objective, while others stated that it was subjective. Because of Mitchell, I wanted to determine what subjective and objective truly meant, so I could effectively respond to attacks while testifying.

The legal definitions of the words "subjective" and "objective" as used by lawyers during attacks on fingerprints are:

Black's Law Dictionary, Eighth Edition:

Subjective: Based on an individual's perceptions, feelings, or intentions, as opposed to externally verifiable phenomena.

Vs.

Objective: 1. Of, relating to, or based on externally verifiable phenomena, as opposed to an individual's perceptions, feeling, or intentions <the objective facts>. 2. Without bias or prejudice; disinterested. <because her son was involved, she felt she could not be objective>. Cf. Subjective

The above definitions are used during arguments before courts, when advocates (including some academics) attack the reliability of fingerprint identification as a subjective process. The forensic identification community and fortunately, society has prevailed and won those attacks, **despite** the incorrect use of the word "subjective" by a number of prominent fingerprint examiners on the witness stand and in some contemporary literature.

The definitions of the words "subjective" and "objective" as used in the English language and as defined in various English language dictionaries are:

Webster's New World Dictionary and Thesaurus, 2nd Ed, 2002

Dictionary – Subjective: of or resulting from the feelings of the person thinking; not objective; personal

Thesaurus – Subjective: nonobjective, introspective, arbitrary; see internal

Vs.

Dictionary – Objective: 1. Existing as an object or fact, independent of the mind; real 2. determined by the realities of the thing dealt with rather than the thoughts of the writer or speaker. 3. Without bias or prejudice.

Thesaurus – Objective 1. Existing independently of the mind, actual, external, material, scientific, sure, extrinsic, measurable, extraneous, 2. Free from personal bias, detached, impersonal, unbiased; accurate, fair

Webster's New World Dictionary, College Edition provides the following definitions:

Subjective: 1. Affected by, or produced by the mind or a particular state of mind; of resulting from the feelings or temperament of the subject, or person thinking, rather than the attributes of the object thought of: as, a subjective judgement. 2. Determined by and emphasizing the ideas, thoughts, feelings, etc. Of the artist, writer, or speaker. 3. In ***grammar***, nominative. 4. In ***philosophy***, having to do with any of the elements in apprehension or apperception derived from the limitations of the mind rather than from reality independent of mind. 5. In ***medicine***, designating or of a symptom or condition perceptible only to the patient. 6. In ***psychology***, a) existing or originating within the observer's mind and, hence, incapable of being checked externally or verified by other persons. b) introspective.

Vs.

Objective: 1. Of or having to do with a material object. 2. Having actual existence or reality. 3. a. Uninfluenced by emotions or personal prejudices: *an objective critic*. b. Based on observable phenomena; presented factually: *an objective appraisal*. 4. ***Medicine***. Indicating a symptom or condition perceived as a sign of disease by someone other than the person affected. **OBJECTIVE *n***. 1. Something that actually exists.

Cambridge's Online Dictionary:

Subjective: Influenced by or based on personal belief or feelings, rather than based on facts.

Vs.

Objective: Not influenced by personal beliefs or feelings; based on real facts. It's an admirably objective and impartial report. Science is usually concerned only with objective **facts** that can be proved or disproved. Objectively: Judges are supposed to weigh the evidence in each case logically and objectively.

After a review of dozens of English language, law, and medical dictionaries, there are four common denominators to the word "subjective". These are:

Personal feelings
Free from outside influence
Created and exists only in the mind
Cannot be externally verified

During rulings in Daubert hearings, courts have addressed whether or not friction skin identification is an objective or subjective process. Despite the incorrect use of the word "subjective" by examiners on the witness stand, the courts have looked beyond the word and analyzed the process.

The following three court cases are specific examples of how the incorrect use of the word "subjective" caused the courts to investigate further into the reliability of friction ridge evidence:

US v. Salim, Criminal Action No. 01-CR. 02 (DAB), US District Court for the Southern District of New York (2002)

"The Plaza Court, after a detailed and in-depth analysis of the basic premises of fingerprint identification, ***appeared to have been troubled by what it repeatedly referred to as a high degree of subjectivity in the evaluation stage:*** "it is difficult to see how fingerprint identification--the matching of a latent print to a known fingerprint--is controlled by any clearly describable set of standards to which most examiners subscribe." Plaza, 179F.Supp.2d at 514. Accordingly, the Plaza Court allowed the presentation of testimony as to the entirety of the fingerprint identification process, with the exception of "evaluation testimony", i.e., that a particular latent print is in fact the print of a particular person." See id. at 516. ***This Court is unpersuaded by such reasoning, for it hearkens to an imprudently stringent understanding of scientific objectivity. Contrary to the Plaza reasoning, the mere fact that an expert utilizes his or her expertise and training to determine whether there is enough agreement of the various print ridge formations to be able to individualize and ultimately, to "match" a print, does not constitute an absence of standards to render the technique unreliable. Rather, the methods of comparison are in fact testable such that both parties can subject prints to verification."***

United States v. Wade Havvard, 117 F.Supp.2d 848 (D.C.Ind. 2000)

"In this case, Havvard contends in essence that an opinion about whether a given latent fingerprint is from a particular finger is a subjective opinion that is not sufficiently reliable to be admitted. Although the argument may seem improbable, Havvard pointed out that the examiner designated to testify at trial about the fingerprint refused to identify a given standard in terms of the number of "points" or features that must be identical between the latent print and the comparison print before an identification opinion can be given. ***In addition, when that examiner testified at Havvard's trial, he described his opinion as 'subjective'."***

> "The refusal to provide a clear standard and ***the expert's description of his opinion as "subjective" at least raise a fair question about identification opinions under Daubert and Kumho Tire***. See *Kumho Tire,* 526 U.S. at 144-45, 157-58, 119 S.Ct. 1167 (upholding exclusion of opinion about cause of tire failure based on experience and visual inspection, and absence of at least two of four supposed signs of under inflation where methodology was not shown to be reliable)...
>
> ...the fact that some ***professional judgment and experience*** is required also does not mean that expert testimony is inadmissible. It is instead the hallmark of expert testimony, so long as it can otherwise meet the standards of reliability set forth in *Daubert* and *Kumho Tire."*

In Havvard, the Court was forced to have a Daubert Hearing because of the testimony of the fingerprint examiner witness. After an analysis of the process and conclusions reached by the examiner, the Court properly replaced the word "subjective" with "**professional judgement**". This was a much more accurate phrase to describe how a fingerprint examiner evaluates ridge detail and reaches a conclusion.

Commonwealth v. Terry L. Patterson, 445 Mass 626; 840 N.E. 2d 12; (Mass 2005)

During oral arguments before the Supreme Court of Massachusetts, the State's Attorney stated that fingerprint identification was a "subjective analysis". At that point one of the Justices stopped the attorney and stated ***"I don't understand what that means? — I have compared thousands of prints and I know it when I see it, but no one else does?"*** The Justice was correct in that subjective means exists only in the mind of the beholder and cannot be seen by anyone else. At that point, the State's Attorney just restated that fingerprint identification was a subjective analysis, and tried to compare it to a medical doctors' diagnosis of a disease, which further confused the justices.

Once again, based on information provided to the State's Attorney by latent print examiners, an incorrect explanation of what we do and how we form conclusions was provided to the Court. And once again the Court looked beyond the word, did their own objective analysis of the process and correctly ruled that latent print identification is a reliable form of evidence and is admissible.

In a well known text on friction ridge identification, the author created his own definition of the word subjective as being "influenced by a person's knowledge, state of mind, or ability". This definition conflicts with the legal and English language dictionary definitions as cited above. Knowledge and ability are the products of an examiner's training, education, and experience. Training, education, and experience are also the outside influences which provide the examiner with the skills and ability to make objective decisions during examinations, which is what sets experts apart from lay witnesses.

I read a posting on a popular fingerprint blog website, where one respected examiner asked the question: How can an objective analysis, followed by an objective comparison, result in an subjective evaluation? The answer is: **it can't**. A trained competent examiner doing an objective analysis; an objective comparison, will arrive at an objective, verifiable, and repeatable conclusion based on an objective evaluation.

When a decision is made based on how you feel about it, it is a subjective decision. When a decision is made based upon facts or information provided, it is an objective decision. Can there be subjective elements to the decision making process? Of course, however that does not make the process subjective. The forensic examiner should strive to ensure that the conclusions reached during an examination are as objective as possible.

An example of a subjective decision would be the following:

> As you approach an intersection, you close your eyes and based on how you feel at that moment, you either stop at the intersection or decide to go through it.

Compare this with the objective decision:

> As you approach the intersection you look at the light and see that it is red, evaluate cross traffic, see the motor officer sitting at the intersection, and are influenced by the **fact** that there is a law against running red lights, so you stop. Your decision was based not on your feelings, but on observable phenomena and outside influences. Congratulations! You made an objective decision, possibly saved your life, and avoided a ticket.

Friction ridge identification is an objective process based on a comparison examination, using skills acquired through training and experience, and subjected to verification. The conclusions can be supported and demonstrated to other examiners, and the basis for the conclusions can be explained to courts and juries. This is why friction skin identification has withstood the test of time in the judicial systems of not only the United States, but the World.

In the case of individual fingerprint examiners – the clearer the details compared, the less subjective the evaluation; the higher the skill level, based on training and experience (both training and experience are outside influences, that can be verified and tested), the less subjective the evaluation is; and, as noted over and over again by the courts, the fact that the conclusions can and have been verified also mitigates any subjectiveness in the process. Identifications are based on the agreement of friction ridge formations and their appearance – period.

The fact that computers can be programmed to duplicate the identification process done by fingerprint examiners with amazing accuracy is just another example of just how objective the process of fingerprint identification is. In some applications, computer identification of fingerprints are done without human intervention or verification.

Few human endeavors enjoy the deserved reputation for reliability that fingerprint identification has achieved.

The more subjective a process is, the less reliable it is. The more objective a process is, the more reliable it is. The courts are concerned with reliability and alert to the word "subjective". It has been suggested that the word "subjective" is not a "bad word"**–but it is**, when the concern is reliability, which is at the heart of a Daubert challenge.

Now it is time to take the subjective test:

The Fingerprint Examiner's Subjective Test

1. Is your conclusion based on A or B:

   A. An examination and comparison of the features of the prints.

   B. Your personal perception, feeling, or intentions.

2. Can your conclusion be verified?

   A. Yes

   B. No

3. Can you show or demonstrate to a another examiner, what you examined that provided you with the information that allowed you to form a conclusion?

   A. Yes

   B. No

If you answered "A" to the above three questions, you have proven that the conclusion of a friction ridge comparison is an objective conclusion, not a subjective one. If you answered "B" to any or all of the above three questions, perhaps, you should re-evaluate how you are doing friction ridge examinations, or you could become a palm reader.

The courtroom is an adversarial environment where the main weapon used is words. This is also the workplace of the expert witness. The better armed the expert is with an understanding of the words being used, the better prepared the expert is to explain and defend his or her conclusions in courts of law.

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