

FILED
AT 4:00 O'CLOCK P.M.

JUL - 2 2010

IN THE CIRCUIT COURT OF THE STATE OF OREGON FOR LANE
COUNTY

Circuit Court For Lane County, Oregon
BY Harbar

THE STATE OF OREGON

Plaintiff,

vs.

STEPHEN ANGIUS,

Defendant.

Case No. 200924231

OPINION RE: DEFENDANT'S
MOTION TO EXCLUDE
FINGERPRINT EVIDENCE

Introduction:

The issue before this court is whether to allow a fingerprint examiner employed by the Eugene Police Department (EPD) to testify that two latent fingerprints found in a victim's apartment are the same as the Defendant's. In particular, the Defendant asserts that such testimony is not scientifically valid and therefore is inadmissible under the standards established in *State v. O'Key*, 321 Or 285 (1995).

In years past, and perhaps in the future, some might think such a challenge frivolous. The use of fingerprints as a means of identifying individuals has been part of the judicial system for over one-hundred years. Prior to the development of DNA testing in its current form, fingerprint identification was considered by many to be the "gold standard" in forensic sciences.

To the astonishment of many, in August of 2009 the National Academy of Sciences (NAS) issued a report which found that the ACE-V method¹ of fingerprint identification - the predominant methodology used throughout the world - had not been scientifically validated in any study. NAS, *Strengthening Forensic Science in the United States: A Path Forward* (2009) [hereinafter NAS Report]. The NAS Report sent tremors through the fingerprint examiner community and has caused a great deal of examination of the techniques and claims of fingerprint examiners. In addition, it caused other forensic scientists, lawyers and courts to take a more rigorous look at the testimony of fingerprint examiners.

¹ ACE-V is an acronym which stands for Analysis, Comparison, Evaluation and Verification.

Analysis:

A. Is this scientific evidence?

As a threshold issue, the court must determine whether the testimony of a fingerprint examiner is scientific evidence. Oregon courts have avoided creating a precise definition of what is scientific evidence. *O'Key*, 321 Or at 290. Rather, they have chosen to state that scientific evidence is evidence that draws its convincing force from some principle of science, mathematics, and the like. *State v. Brown*, 297 Or 408 (1984). In this case, both parties agree that the proffered evidence is scientific evidence as that term is used above.

B. The Court's gate-keeping role:

Courts recognize that evidence perceived by lay jurors to be scientific in nature possesses significant increased potential to influence the trier of fact, and therefore should be supported by scientific validation. Thus, in the absence of a clear case, a case for judicial notice, or a case of *prima facie* legislative recognition, a trial court's job is to ensure that persuasive appeal is legitimate. The value of the proffered expert's testimony depends on the scientific validity of the general propositions utilized by the expert. The court must identify and evaluate the probative value of the proffered scientific evidence, consider how the evidence might impair rather than help the trier of fact, and decide whether truth finding is better served by exclusion or admission.

C. Proponent's burden

The party offering scientific evidence has the burden to establish is it admissible. They must establish admissibility by a preponderance of the evidence. To be admissible, scientific evidence must: (1) be relevant (Oregon Evidence Code 401 (OEC)); (2) possess sufficient indicia of scientific reliability and be helpful to the jury (OEC 702); and (3) have its probative value not substantially outweighed by its prejudicial value (OEC 403).

D. Relevancy:

Evidence is relevant if it has "any tendency to make the existence of any fact that is of consequence . . . more probable or less probable than it would be without the evidence. OEC 401; *see also State v. Cox*, 337 Or 477 (2004). In the case at hand, Defendant is charged with several burglaries and thefts from several residences. The State plans to offer testimony of an EPD fingerprint examiner that two (of nine) fingerprints found on items in one of the burglarized apartments matched Defendant's fingerprints. The state offers the evidence to prove that the defendant was at least being present in the one of the residences. Thus the evidence is clearly relevant, a fact both parties seem to agree upon.

F. Is the fingerprint evidence scientifically reliable and likely to be helpful to the jury:

In *State v. Brown*, the Oregon Supreme Court set forth list of factors that courts were to consider when deciding whether to allow the admission of scientific evidence. 297 Or 404 (1984). In *State v. O'Key*, 321 Or 285 (1995), the Oregon Supreme Court further refined that list, incorporating some of the factors adopted by the United States Supreme Court in *Daubert v. Merrell Dow Pharmaceuticals*, 509 US 579 (1993). The *O'Key* Court noted that the list was "not intended to be taken as a mechanical checklist of foundational requirements." *O'Key*, 321 Or at 300. Rather, what is important is an analysis of each factor. *Id.* (citing *Brown*).

My consideration of the factors is as follows:

1. Testability of Falsifiability: The underlying theory in making identifications of individuals via friction ridge impressions is that each person has a unique and permanent set of friction ridges, that under certain circumstances when a person touches something an image of those ridges is left behind (latent prints) and that a trained observer can, by comparing latent prints to a known sample of an individual's print, determine whether the latent print matches the known print source.

There is wide spread understanding that friction ridges are formed on the hands and feet of human beings in utero. There is also widespread acceptance of the idea that absent scarring, the patterns of those ridges do not change during a person's life. There also seems to be wide spread acceptance of the notion that each person has a unique set of fingerprints. While these understandings are based on scientific principles, there is only a small amount of scientific studies that support these beliefs. See NAS Report, 144 & 144 n.34. However, in the over one hundred years that fingerprints have been used as a method to identify individuals, no two people have been found to have the same fingerprints. This is true despite numerous studies of identical twins (and others) studies looking for the same prints. Finally, even critics of the method seem to acknowledge that it is capable of correctly identifying a person. NAS Report, 142; see also Dr. Cole's testimony acknowledging such evidence may have probative value. However, even if uniqueness and permanence are presumed, that does not guarantee that prints from two different people are sufficiently different that they cannot be confused. NAS Report, 142.

The technique used to make latent print identification in this case is referred to by the acronym ACE-V, which stands for Analysis, Comparison, Evaluation, and Verification. A detailed explanation of the process is set forth in Heidi Eldridge's affidavit and that description is incorporated herein by this reference. (Eldridge Aff. 2:20-5:11). ACE-V is a very broad framework that

relies heavily on the experience, training and skill of the examiner. It therefore is a very subjective process.

On the other hand, the technique has a built-in check, namely the verification where a "second opinion" is taken from a different examiner. Generally that examiner works through the ACE-V process himself to determine whether they agree with the conclusion of the first examiner. Further, unlike some other methods of testing, no part of the sample is destroyed, so the original latent prints are available for review by other examiners, including those hired by the defense. This method has been used extensively since the 1970s and presumably the results of individual examinations have been subject to the scrutiny of the litigation process tens of thousands of times. It is the framework used worldwide to make hundreds of thousands of comparisons every day.

2. Peer review and publication (the existence of specialized literature).

Both parties agree that there has been extensive literature about the use of fingerprints to identify people and about the use of the ACE-V technique in particular. The International Association for Identification (IAI) publishes the Journal of Forensic Identification which is dedicated to friction ridge identification. In addition to this specialized journal, there are numerous articles about fingerprinting in various law journals, forensic science journals, magazines and newspapers.

Unfortunately, not a lot of that literature has been directed at examining the scientific validity of the ACE-V technique. That may be the result of the fact that people generally considered fingerprint identification the "gold standard" of the forensic sciences. The only study addressing the accuracy of the ACE-V method that has been published after the NAS Report, was the Landenburg Performance Study.

3. The known or potential rate of error

It is true that there is not an agreed upon error rate for misidentification of fingerprints. And to be sure, any method so dependent on the subjective interpretations of the examiner is bound to have errors, and claims to the contrary are inaccurate. NAS Report, 143. However, 100% accuracy is not required for the evidence to be admissible.

The NAS Report also highlighted the fact that there were no adequate validation studies on the ACE-V methodology. NAS Report, 143. There are, however, numerous studies looking at errors and the likelihood of erroneous

