IN THE CIRCUIT COURT OF THE ELEVENTH JUDICIAL CIRCUIT
IN AND FOR MIAMI-DADE COUNTY, FLORIDA

STATE OF FLORIDA, **Plaintiff,**	**CASE NUMBER: F12-101; F12-7083**
VS.	**SECTION 14**
RADAMES BORREGO, **Defendant.**	**JUDGE MILTON HIRSCH**

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ORDER ON DEFENDANT'S MOTION *IN LIMINE*

I. Introduction

Defendant moves for an order *in limine* regarding the testimony to be given by a fingerprint witness to be called by the prosecution at the trial of this cause. The particular respects in which the defense seeks to limit the witness's testimony are set out in its motion. *See* Def.'s Mot. in *Limine* at p.1, ¶¶1-4. I consider, first, the general ground rules as to the admission of scientific and expert testimony in Florida; and second, the admission of testimony regarding fingerprints in particular.

II. Scientific and Expert Evidence in Florida

There is nothing novel or modern about the notion that our knowledge of the natural world should be applied to the resolution of factual questions at law. Fully four centuries ago Shakespeare provided, in a case in which murder was suspected, a post-mortem examination that was, for the time and place, "state of the art."[1]

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[1] See, how the blood is settled in his face!
Oft have I seen a timely-parted ghost,
Of ashy semblance, meagre, pale, and bloodless,
Being all descended to the labouring heart;
Who, in the conflict that it holds with death,

Prior to the scientific and industrial progress of the 18th and 19th centuries, and the development of the law of evidence during the same period, there was little law (and little need for law) on the subject of scientific and expert testimony.[2] The standard upon which neoteric scientific or technical evidence was to be evaluated for admission at trial was a question about which the law

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Attracts the same for aidance 'gainst the enemy;
Which with the heart there cools, and ne'er returneth
To blush and beautify the cheek again.
But see, his face is black and full of blood;
His eye-balls further out than when he liv'd,
Staring full ghastly like a strangled man:
His hair uprear'd, his nostrils stretch'd with struggling;
His hands abroad display'd, as one that grasp'd
And tugg'd for life, and was by strength subdu'd.
Look on the sheets, his hair, you see, is sticking;
His well-proportion'd beard made rough and rugged,
Like to the summer's corn by tempest lodg'd.
It cannot be but he was murder'd here;
The least of all these signs were probable.

William Shakespeare, The Second Part of King Henry the Sixth act III, sc. 2.

[2] It is, perhaps, difficult for us to remember that "science," as we understand that term today, really begins in the 17th century. *See* Bertrand Russell, History of Western Philosophy 512, 514 (Routledge 1961). That fertile century encompassed the first serious use of the telescope by Lippershey and Galileo, Harvey's discovery of the circulation of blood, Leeuwenhoek's study of microscopic life, Robert Boyle's seminal studies in chemistry, Napier's development of logarithms, Descartes's contributions to co-ordinate geometry, not to mention Newton's pathbreaking work in a host of scientific fields. (Newton and Leibniz both invented calculus, independently of one another.) Francis Bacon rose to the post of Lord Chancellor in 1618 and then, after leaving office in disgrace, spent his remaining years in scientific research. He died in 1626 of a chill caught while experimenting on refrigeration by stuffing a chicken full of snow.

> At the beginning of the [17th] century, Sir Thomas Browne took part in trials for witchcraft; at the end, such a thing would have been impossible. In Shakespeare's time, comets were still portents; after the publication of Newton's *Principia [Mathematica]* in 1687, it was known that he and Halley had calculated the orbits of certain comets, and that they were as obedient as the planets to the law of gravitation.

Id. at 522.

of the 18th and 19th centuries was, confessedly, a little fast and loose. One common-law commentator observed, "The competency of the expert is a preliminary question for the judge, and is one upon which, in practice, considerable laxity prevails." Sidney L. Phipson, The Law of Evidence 363 (2nd ed. 1898). Wigmore, writing half-a-dozen years later, states unhelpfully that the "only true criterion is: On *this subject* can a jury from *this person* receive appreciable help?" 3 John Henry Wigmore, A Treatise on the System of Evidence in Trials at Common Law §1923 (1904) (emphasis in original). Contemporary Florida cases were similarly unhelpful. *See, e.g., Jacksonville Elec. Co. v. Cubbage*, 51 So. 139 (Fla. 1910); *Atl. Coast Line R. Co. v. Dees*, 48 So. 28 (Fla. 1908); *Davis v. State*, 32 So. 822 (Fla. 1902).

The rate of scientific advance in 1904 (the year that Wigmore completed his monumental treatise) may seem glacial by today's standards, but it was unprecedented in its day.[3] The power of science to benefit mankind, barely tapped, seemed unlimited. Those who could release that power were worthy of veneration – including veneration by jurors. But with science developing at such a dizzying pace, disagreements between scientists about everything from the descent of man and the evolution of species to whether the vast empty spaces of the universe were actually filled with "ether" were inevitable.[4] How was the law to take account of such disagreements?

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[3] Even by today's standards, those were remarkable times. "In a sustained burst of scientific creativity unmatched before or since, an obscure clerk from the Patent Office in Berne transformed the world of physics in a few months in 1905. Any of the five papers Albert Einstein published that year would have been enough to earn a Nobel prize; to produce so many, so quickly and each so original, almost defies belief." The London Times, Dec. 27, 2004.

[4] As early as 1873, a leading American commentator observed:

> By the Anglo-American practice, a party is entitled to call on trial any expert he may select; and he is not likely to select any whose views will not promote his cause. It so happens that among the present large body of experts, there is little trouble in discovering one or more by whom is maintained the particular psychological theory

In the course of affirming a conviction in which the trial judge excluded evidence from an early form of lie-detector, the court in *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923), without citation to authority, made the now-famous observation that "the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs." *Id.* at 1014. Whether or not the captioned language has served the legal system well or ill is a fair topic for debate.[5] What is not open to debate is that the *Frye* holding was concerned with the power and duty of the trial judge to screen (and, when appropriate, exclude) evidence offered for consideration by a lay jury on the issues of fact raised by the trial. In this sense, the so-called *Frye* test is simply a specimen or example of a larger principle: It is the duty of the trial judge to determine whether the unfairly prejudicial effect of proffered evidence exceeds its probative value, and to exclude it when it does. *See, e.g.*, § 90.403, Fla. Stat. ("Relevant evidence is inadmissible if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of issues, misleading the jury, or needless presentation of cumulative evidence"). Because the larger principle is so universally accepted in Anglo-American law, the *Frye* court would no doubt have been surprised to have been told that it had propounded novel doctrine.[6] Then as now, judges

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> of which the party on trial stands in need. It is an old truth that there is nothing so absurd but that some philosopher may be found by whom it is affirmed.

Francis Wharton, Wharton and Stille's Medical Jurisprudence xi (3d ed. 1873).

[5] Prior to the Supreme Court's opinion in *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579 (1993), *Frye* had been criticized by academic commentators. *See, e.g.*, Roger S. Hanson, *James Alphonso Frye is Sixty-Five Years Old; Should He Retire?*, 16 W. St. U. L. Rev. 357 (1989); Paul C. Giannelli, *The Admissibility of Novel Scientific Evidence: Frye v. United States a Half-Century Later*, 80 Colum. L. Rev. 1197 (1980).

[6] Certainly the judges of Florida would have been surprised to have been told that the *Frye* court had propounded novel doctrine. *Frye* went uncited in Florida for three decades, making its first appearance in Florida law in *Kaminski v. State*, 63 So.2d 339 (Fla. 1953). *Kaminski* involved the

and lawyers believed that lay juries were in danger of being unduly influenced by, and unduly accepting of, the testimony of an elaborately-credentialed scientist whose argot they could not be expected to understand. Accordingly, the *Frye* test requires, in effect, circumstantial evidence that the probative value of the testimony exceeds its unfair prejudice, the circumstantial evidence being the general acceptance of the scientific technique or method in the scientific community to which it applies. The decision whether probative value outweighs unfair prejudice is, in this as in every other similar context, consigned to the trial judge. The weight to be given the evidence once the court deems it admissible is, in this as in every other similar context, consigned to the jury.

That oracle of the law, Sir Edward Coke, attributes to even more ancient authority, Bracton, the maxim that *ad quaestionem facti non respondent judices, ad quaestionam juris non respondent juratores*.[7] If by *quaestionem facti* Coke refers to the ultimate issues of fact, the issues of fact which the verdict will resolve, of course the maxim is true. If by *quaestionem facti* Coke means to embrace all issues of fact, the maxim is surely false. Many important factual questions are resolved by the court before, during, and after trial.[8] To speak of applying the *Frye* test to such determinations is to

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question whether a witness could be asked if he had taken, or been willing to take, a lie detector test. In the course of resolving that question, the Court made reference to *Frye* for the proposition that lie-detector test results themselves were inadmissible. *Kaminski*, 63 So.2d at 340. As late as 1980, *Frye* had been cited a grand total of three times in all of Florida jurisprudence: in *Kaminski*, *Coppolino v. State*, 223 So.2d 68 (Fla. 2d DCA 1968), and *Johnson v. State*, 166 So.2d 798 (Fla. 2d DCA 1964).

[7] Whether Bracton propounded this maxim, or even heard of it, is a nice question. Professor Thayer insists that the attribution to Bracton is erroneous and muses, "Coke seems to have spawned Latin maxims freely. Is this also his?" James Bradley Thayer, A Preliminary Treatise on Evidence at the Common Law 185-6 n.4 (1898) (hereinafter Thayer).

[8] Nor is any good purpose achieved by arbitrarily characterizing these determinations as questions of law simply because the judge resolves them. An 1879 revision and codification of British criminal procedure proposed, under the doctrine of attempts, to provide that "the question whether an act done or omitted with intent to commit an offence is or is not only preparation . . . and too remote to

allege that a judge must conduct a hearing at which he considers evidentiary artifact X in order to determine whether he will consider evidentiary artifact X; in other words, it is to speak gibberish. A variety of decisions, many of them factual in whole or in part, must be made by the trial judge in the course, or at the threshold, of a criminal trial. In passing upon, for example, an objection on grounds of racial, religious, or gender discrimination to the exercise of a peremptory challenge in jury selection, *see Melbourne v. State*, 679 So.2d 759 (Fla. 1996) and progeny; a challenge to the competence of a witness, or a question as to the existence of a privilege, *see* § 90.105(1), Fla. Stat.; or in adjudicating a motion to dismiss, *see* Fla. R. Crim. P. 3.140(o) or 3.190; or a motion for joinder, or for severance, *see* Fla. R. Crim. P. 3.150 or 3.152; or a motion to suppress, *see* Fla. R. Crim. P. 3.190; or a motion for change of venue, *see* Fla. R. Crim. P. 3.240; or in determining whether *corpus delicti* has been made out as a condition prevenient to the admission of a defendant's confession, *see, e.g., Gantling v. State*, 26 So. 737, 742 (Fla. 1899) ("[T]he court must decide in the first instance whether the evidence of the *corpus delicti*, is *prima facie* sufficient to authorize the introduction of a confession by the accused in evidence"); or in evaluating the materiality of an allegedly false statement in connection with a perjury prosecution, *see State v. Ellis*, 723 So.2d 187

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constitute an attempt . . . is a question of law." Thayer, *supra* note 7, at 202 (*citing* Report of Criminal Code Bill Commission (1879), Draft Code § 74). Professor Thayer quotes "a valuable letter of Chief Justice Cockburn, addressed to the Attorney-General" criticizing the foregoing provision as follows:

> To this I must strenuously object. The question is essentially one of fact, and ought not, because it may be one which it may be better to leave to the judge to decide than to submit it to a jury, to be, by a fiction, converted into a question of law. . . . The right mode of dealing with a question of fact which it is thought desirable to withdraw from the jury is to say that it shall, though a question of fact, be determined by the judge.

Id. at 202.

(Fla. 1998); or in determining whether to compel the prosecution to identify or produce its confidential informant, *see, e.g., Bailey v. State*, 994 So.2d 1256 (Fla. 2d DCA 2008); the judge will necessarily be called upon to resolve questions of fact. No jury will assist him in doing so. He will not be acting as a gatekeeper, standing between illegally obtained or unfairly prejudicial evidence and the jury; and the rules which he employs in discharging his gatekeeper function (such as the *Frye* rule) will be inapplicable. Rather, he will resolve such questions based upon the logical and legal relevance of the proffered evidence, having always in mind the limitations imposed by the constitutions and the doctrines of privilege and due process. Closely akin to the question of the admissibility of the testimony of a scientific witness is the question of the admissibility of the testimony of a child witness. In the former instance, it is the excessive complexity of what the witness understands that may result in confusion and unfair prejudice; in the latter, it is the excessive simplicity or insufficiency of what the witness understands that may result in confusion and unfair prejudice. In both instances, the rule is the same: it is for the court, in the exercise of its gatekeeping function, to pass upon the admissibility of the proffered testimony. If the court excludes or limits the evidence, the jury will not receive it, or will receive it as limited. If the court admits the evidence in whole or in part, it is for the jury to assign it the appropriate evidentiary and probative weight. *See, e.g., Palazzolo v. State*, 754 So.2d 731 (Fla. 2d DCA 2000).

The reason for rules of evidence generally, and for exclusionary rules of evidence such as *Frye*, is the existence of the lay jury as trier of fact.[9] As to those questions of fact, or mixed

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[9] *See* Thayer, *supra* note 7, at 2 ("It is th[e] institution of the jury which accounts for" such rules); § 90.403, Fla. Stat. ("Relevant evidence is inadmissible if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of issues, misleading *the jury*, or needless presentation of cumulative evidence.") (e.s.).

questions of fact and law, consigned to the judge's determination, these exclusionary rules are inapplicable. There is no gatekeeper function to discharge when there is no one on the other side of the gate. Section 90.105(1), Florida statutes, is properly interpreted in conformity with Fed. R. Evid. 104(a), *see Saavedra v. State*, 421 So.2d 725 (Fla. 4th DCA 1982), which provides that, "In making [such] determination[s the court] is not bound by the rules of evidence except those with respect to privileges." All Florida "commentators and at least one recent decision have properly held that the omission of this sentence [from § 90.105(1)] does not negate the inherent ability of the trial judge to disregard the rules of evidence in determining preliminary questions of admissibility." Charles W. Ehrhardt, Ehrhardt's Florida Evidence §105.1, at 51 (2012).

The most important exposition of *Frye* in recent Florida jurisprudence is *Ramirez v. State,* 810 So.2d 836 (Fla. 2001); so much so that some Florida lawyers and judges refer to the "*Frye-Ramirez*" test as governing the admissibility of novel scientific evidence in this state. Ramirez had been charged with capital murder and sentenced to death. *Id.* at 839. At issue was the admissibility of "testimony by [a] Miami crime technician . . . that, based on his knife-mark identification procedure, Ramirez's knife was the murder weapon to the exclusion of all others." *Id.* "The technician explained that he had compared a piece of cut cartilage from the body of the victim to knife impressions, using the knife in question, but had made no comparison with other knives." *Id.* at 841. The Florida Supreme Court quite properly determined that the testimony in question was devoid of that reliability associated with the scientific method. The "technician" testified to a technique based upon his own impressions, not subject to peer review and not based upon scientific principles subject to peer review. The examination was not susceptible of replication or independent verification. The examiner, upon whose sole credibility the jury would be invited to determine the guilt or innocence

of the defendant, was a full-time employee of the police agency charged with the investigation and prosecution of the crime. "In applying the *Frye* criteria, general scientific recognition requires the testimony of impartial experts or scientists. It is this independent and impartial proof of general scientific acceptability that provides the necessary *Frye* foundation." *Id.* at 851.

III. Fingerprint Evidence in Florida

Ernest Hemingway is alleged to have said that all American writing derives from Mark Twain's Huckleberry Finn. But Twain was the progenitor of more than American literature; he was also the progenitor of American fingerprint identification.

Twain had contemplated writing a travelogue about the Mississippi River as early as 1866. In 1874, William Dean Howells, editor of the *Atlantic Monthly* and a friend and collaborator of Twain, encouraged him to do some magazine-length pieces on the subject. The work that resulted appeared in seven issues of the *Atlantic Monthly* in the first half of 1875. In 1882, Twain actually took the journey that he purports to chronicle in Life on the Mississippi, and the book came out the following year.

Life on the Mississippi is part novel, part travelogue, and it is often difficult to know where reality ends and Twain's wonderful creative afflatus takes over. At one point Twain retails a story purportedly shared with him by a chance acquaintance, a story about a French jailer who had determined that thumb-prints were a fool-proof method of identification and who used them to keep track of his inmates. How the French jailer came to this knowledge is something that the reader never learns.

About a decade later, Twain authored "Pudd'nhead Wilson," which appeared first as a serialized novel in *Century Magazine* and then in book form. The denouement of the story occurs in

a trial in which the principles of fingerprint identification are revealed and are unerringly employed to exculpate an innocent man and to inculpate the true guilty party.

How Mark Twain knew about fingerprint identification, and how much Mark Twain knew about fingerprint identification, are questions for which history provides no answer. The British pioneered the widespread use of identification by fingerprinting in India in the waning years of the 19th century. The Indian Evidence Act of 1899, passed by the colonial legislature, was the first statute to refer to fingerprints as a form of evidence; and the first trial to rely upon such evidence took place in 1904. Simon A. Cole, Suspect Identities: A History of Fingerprinting and Criminal Identification 90 (2001) (hereinafter Cole). In 1910, *Scientific American* took the position that fingerprinting was preferable to Bertillonage,[10] and in 1912 the *New York Times* did the same.[11] Cole

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[15] In the early 1880's one Alphonse Bertillon, a French policeman, came up with a revolutionary scientific idea for identifying criminals: Bertillon argued that certain physical characteristics - earlobes, the length of the left middle finger, and so on - do not change over an adult lifetime, and no two adults could have the same measurements. By systematically recording these features on known criminals, the French criminologist declared, the police could develop a foolproof method for identifying crooks.

The system of anthropometry, or Bertillonage, was enthusiastically embraced by police forces throughout Europe and America. In 1884 Bertillon triumphantly identified 241 repeat offenders, several of whom were duly guillotined. For nearly 20 years, criminals around the world were routinely betrayed by, among other things, the length of their earlobes.

But then, in 1903, a man named Will West was arrested in Kansas and taken to Leavenworth prison. A thorough Bertillon test demonstrated that he was William West, a known malefactor. Except he wasn't. That William West, with the same name, a similar mugshot and identical Bertillon measurements, was already in Leavenworth, serving a life sentence for murder. The credibility of the French system never recovered and was soon rendered redundant

at 159. The first American case to rely upon fingerprint evidence was *People v. Jennings*, 96 N.E. 1077 (Ill. 1911).[12]

Whether the premise upon which fingerprint identification is based – that no two persons can have identical fingerprints – is true or not is a nice question. Common experience suggests that each of us is different from all of us in hundreds, even thousands, of small ways; and that therefore the likelihood of two persons having identical fingerprints is remote to the point of being inconceivable. But of course citation to "common experience" hardly constitutes a scientific explanation why, as a matter of accepted principles of anatomy, biology, physiology, etc., two persons *could not* have the same fingerprints. Like the yellow fog in T. S. Eliot's "The Love Song of J. Alfred Prufrock" that "seeing that it was a soft October night/Curled once about the house, and fell asleep," fingerprints tip-toed quietly into the jurisprudence of Florida without ever having been *Frye*-tested or anything-tested. *See, e.g., Rebjebian v. State*, 44 So.2d 81 (Fla. 1949); *Clay v. State*, 196 So. 462 (Fla. 1940); *New Amsterdam Casualty Co. v. James*, 166 So. 813 (Fla. 1935); *Martin v. State*, 129 So. 112 (Fla. 1930); *Blackwell v. State*, 86 So. 224 (Fla. 1920).[13]

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by fingerprinting.

Ben MacIntyre, *We Are All Suspects Now*, The London Times, Nov. 3, 2006. *But see* David L. Grieve, *The Identification Process: Traditions in Training*, 40 J. Forensic Identification 195 (1990) (denying the Will West story). So far as reported opinions reflect, Bertillonage was never employed in Florida, and infrequently employed anywhere in the United States. *But see Comm. v. Saab*, 409 A.2d 437 (Pa. Super. 1979). No reported opinion reflects *Frye*-testing of it.

[11] *Id.* at 159.

[12] In *State v. Kuhl*, 175 P. 190 (Nev. 1918), the Court actually cited to Twain's "Pudd'nhead Wilson" in support of the admissibility of both fingerprints and palm prints.

[13] The Florida Supreme Court approved fingerprint identification in *Blackwell* in 1920 – a case decided three years before *Frye*, and thus obviously without the benefit of the *Frye* doctrine. In a case decided at the end of 2007, the Florida Supreme Court stated very matter-of-factly that Florida had not adopted *Frye* until 1985. *Marsh v. Valyou*, 977 So.2d 543, 546 (Fla. 2007). This no doubt

In a typical trial in which fingerprint evidence is offered, the prosecution will begin by calling one or more witnesses to establish that a latent fingerprint impression – almost always a partial fingerprint impression – was recovered from the scene of the crime. It will then call one or more witnesses to establish that fingerprint exemplars were taken from the defendant. Provided a proper foundation is laid, none of this is in the least objectionable; the latent fingerprint impression and the fingerprint exemplars should be received in evidence. One of the witnesses may go on to explain that the characteristics of fingerprints include loops, whorls, and arches. This is no more objectionable than testimony in an eyewitness ID case that the characteristics of faces include eyes, noses, and mouths.

If a problem exists, it arises when an employee of the police department is invited to give his opinion as to whether the latent impression and the defendant's exemplar "match," *viz.*, whether it can be said, and with what degree of confidence it can be said, that the defendant is the source of the latent impression. As noted *supra*, the proposition that no two persons can have the same fingerprint is one for which there exists much empirical, but no theoretical, support; *i.e.*, no one can articulate a principle of anatomy, biology, physiology, pursuant to which two persons *cannot* have the same fingerprint. And even assuming that no two persons can have the same fingerprint, how similar can two people's fingerprints be? The average human fingerprint is said to have between 75 and 175 ridge characteristics.[14] Can different people have as many as 74, or even 174, such characteristics in common? Can they have 73? Or 72? Or 71? Of course even a single non-matching characteristic

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came as a bit of a surprise to Florida trial judges and trial lawyers who believed that *Frye* had been the law in the Sunshine State for a very long time. *Marsh* does not indicate what method, if any, of evaluating novel scientific evidence had been in place in Florida prior to 1985.

[14] *An Analysis of Standards in Fingerprint Identification*, FBI L. Enforcement Bull., June 1972, at 1.

between a latent impression and the exemplar to which it is compared would be sufficient to say that the prints do not match, that the source of the one is not the source of the other. But in dealing with a partial latent impression, the examiner can never know whether there are non-matching characteristics in the portion of the fingerprint not recovered and therefore not examined. As early as 1920, Scotland Yard imposed the requirement that there must be a minimum of 16 points of identity between the latent fingerprint and the same fingerprint for a fingerprint examiner to determine that they came from the same source. Cole at 201. U.S. fingerprint examiners of the same period commonly cited eight or 12 points of identity as being the requisite minimum. *Id.* at 202. No scientific or other basis was offered for these numbers. If a given sample fingerprint had 175 ridge characteristics – the upper limit of the average – and 16 point of comparison are found with a partial latent impression, then even an examiner following Scotland Yard's conservative protocol would be entitled to declare a match; this, despite the remaining 159 ridge characteristics as to which no comparison could be made.

If the jury were merely offered a blow-up of the latent impression and a blow-up of the defendant's exemplar and invited to make its own comparison, no problem would arise. Even if a witness went so far as to direct the jury's attention to certain loops, or whorls, or arches in the latent impression and the corresponding features in the defendant's exemplar, no problem would arise. No *Frye*-testing is needed for this. No *Frye* issue is raised by this. The jury is simply being shown two evidentiary artifacts, each presumably properly authenticated, and asked to reach its own opinions and conclusions as to their similarity. The problem arises when a witness is vested in the raiment of an expert, and permitted to express *his* opinions and conclusions.

Experienced trial lawyers and trial judges know that these opinions and conclusions often take extraordinary form. Witnesses are willing to testify, and have testified, that the partial latent impression has been determined to be that of the defendant "to the exclusion of every other fingerprint in the history of the world;" or to use comparable, and comparably unsupportable, language. Worse yet, witnesses are willing to testify, and have testified, that the error rate associated with their work, or with fingerprint examination in general, is zero.

This is worse than wrong; it is impossible. When imperfect human beings perform a statistically-significant number of examinations and express a statistically-significant number of opinions, error rate – defined as false positives plus false negatives over total population – can never be zero. Even DNA analysis, the gold standard in forensic evidence, has a measurable error rate. Fingerprint analysis certainly does. Language tending to lead the jury to a contrary conclusion undermines the truth-seeking function of trials.[15]

And it is with the truth-seeking function of jury trials that *Frye* is most concerned. The elaborate history appearing at the outset of this order is intended to illustrate, beyond debate, that the *Frye* test is simply a specimen or example of a larger principle: It is the duty of the trial judge to determine whether the unfairly prejudicial effect of proffered evidence exceeds its probative value, and to exclude it when it does. When blow-ups, photographs, or other reproductions of fingerprints

[15]A recent response by the fingerprint-examiner community to increasing awareness of the limitations of fingerprint analysis has been the dressing-up of the method of examination in that most powerful of armor: acronyms. Acronyms, after all, are the particular province of our all-knowing scientific community and our all-powerful military community. To say, "I did the best I could to compare the fingerprints carefully, and after I was finished my colleague in the cubicle next door, with whom I have lunch every day, double-checked my work" sounds less than overwhelming. To say, "I applied the (fill in acronym of choice, using capital letters) method" – which consists of a careful examination, double-checked by the friend in the next cubicle – sounds much more so. But

are admitted into evidence, the truth-seeking function of trials is advanced. But when a prosecution employee is dressed in borrowed robes of expertise and impartiality, and permitted to make far-reaching, scientifically-unsupportable claims about the meaning of those fingerprints, unfair prejudice – prejudice out of all proportion to probative value – predominates.

Certainly that is the teaching of the *Ramirez* prong of Florida's *Frye-Ramirez* test. Recall that in *Ramirez* a police "criminalist" or "lab technician" testified to his examination of, and conclusions about, a knife allegedly used in a homicide case. His opinions and conclusions were based on his own experience, and not upon a pre-existing body of scientific dogma. Just as troubling, the witness lacked that independence that is the hallmark of science, and of scientific method. On the contrary; he was a full-time employee of the police agency charged with the investigation and prosecution of the crime. "In applying the *Frye* criteria, general scientific recognition requires the testimony of impartial experts or scientists. It is this independent and impartial proof of general scientific acceptability that provides the necessary *Frye* foundation." *Ramirez*, 810 So.2d at 851.

Fingerprint examiners are similarly situated. Like the tool-mark identification employed in *Ramirez*, fingerprint identification is something developed expressly for use in criminal trials. Like the tool-mark identification employed in *Ramirez*, fingerprint identification is based principally upon the examiner's experience, not upon an independent, pre-existing body of scientific theory. Like the tool-mark identification employed in *Ramirez*, fingerprint identification is advocated and practiced almost exclusively by employees of the law-enforcement and prosecutorial authorities who appear as the plaintiff in every criminal case. The "independen[ce]" and "impartial[ity]" that were lacking in *Ramirez* are likewise lacking with respect to the testimony of police fingerprint examiners.

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as Abraham Lincoln routinely remarked, "Calling a sheep's tail a leg doesn't make it one."

Of course the testimony in *Ramirez* had a certain novelty to it that testimony as to fingerprints lacks. We have become accustomed to, and accepting of, fingerprint testimony. Once upon a time our forebears were accustomed to, and accepting of, the notion that the world was flat. That did not make it so.

If anything, the public acceptance of fingerprint testimony warrants a stricter, not a more relaxed, application of *Ramirez*. A jury, applying its common sense and life-experience, might have misgivings about testimony purporting to match a certain knife with a certain wound, to the exclusion of all other knives in the world. Such testimony, simply because of its novelty, might be received by a lay jury *cum grano salis*. But fingerprint testimony is old hat, to laymen and lawyers alike. And it is for this very reason that a trial court must be more vigilant, more scrupulous, to protect the integrity of the truth-seeking function from pollution and misdirection due to excessive and unsupportable claims made by fingerprint examiners. For a fingerprint witness to testify, "I direct the jury's attention to the arch appearing here, and the loop appearing here" is one thing; for a fingerprint witness to testify, "I have concluded that this fingerprint matches that of the defendant to the exclusion of all other fingerprints in the history of the world" is a very different thing. And in between these two very different things lie a thousand nuances and gradations of testimony. The trial judge must apply *Frye*, and *Ramirez*, and his gatekeeping function, and his common sense, to each one of them when and as they are offered in evidence.

And that is exactly what I intend to do at the trial of the case at bar.

IV. <u>Conclusion</u>

Defendant's motion *in limine* is respectfully GRANTED only to the extent of the foregoing order.

SO ORDERED, in chambers in Miami, Miami-Dade County, Florida on this the 25th day of October, 2012.

MILTON HIRSCH
CIRCUIT COURT JUDGE

Copies to: all counsel of record.