# COMMENTARY ON *THE NEED FOR A RESEARCH CULTURE IN THE FORENSIC SCIENCES*

Judge Nancy Gertner*

*The National Academy of Sciences' call for change in forensic sciences will not be successful until lawyers fairly bring these standards to the attention of the courts, and the judges, both district and appellate, rigorously enforce them.*

I greatly appreciate the important work that the authors have done to bridge the gap between the National Academy of Sciences' (NAS) clarion call for change in forensic sciences, on the one hand, and the need to articulate practical suggestions for getting there, on the other.

Nevertheless, I am concerned that suggestions that focus on changes within the field of forensic science itself, rather than changes in the larger judicial and adversarial culture in which forensic science operates, are doomed to failure. It is unquestionably important to encourage the creation of a research culture—upgrading forensic science journals, developing scientific standards to guide casework, improving access to data, etc.—as the article does, but I do not believe that these efforts can succeed without parallel changes in courts and in advocacy.

To be sure, the article does address what the authors call "managing the tension between an adversarial culture and a research culture." It acknowledges that problems in the field derive to a considerable extent from the fact that prosecutors and courts are the primary clients for forensic science. Its suggestions are interesting and creative—extending a *Brady*[1]-type obligation to laboratories to encourage their disclosure of exculpatory findings to the defense, and creating an evidentiary privilege attached to the results of some self-critical peer reviews. The article recognizes that these two recommendations are in conflict with one another. The *Brady* obligation points to the disclosure of exculpatory facts in a particular case; the evidentiary privilege points to the nondisclosure of the results in some kinds of peer reviews. The line between the two will be difficult to monitor, much less to balance.

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1. Brady v. Maryland, 373 U.S. 83 (1963).

But I fundamentally believe that until courts address the deficiencies in the forensic sciences—until courts do what *Daubert v. Merrell Dow Pharmacy, Inc.*[2] requires that they do—there will be no meaningful change here. It is a vicious cycle: The so-called "pedigree" of trace evidence, namely, the fact that it has been admitted without limitation and without challenge over the decades, creates a disincentive for advocates to challenge it. Why bother to waste the client's resources or request additional court funding for appointing counsel if the result of a *Daubert* motion will be either the denial of a hearing or a denial of the motion? If the lawyers do not tee up the issue, the evidence will be introduced without objection. If the lawyers do decide to raise these challenges, a busy trial judge can rely on the decades of case law to legitimize decisions rejecting a hearing or motions in limine. And the trial judge can count on the Court of Appeals likely concluding that rejecting the challenge was not an abuse of the judge's discretion. Then those decisions, even if they do no more than endorse the judge's discretion under an abuse of discretion standard, reinforce the view that challenges are futile. While the "no-abuse-of-discretion" decision means only that there is a range of discretionary decisions, including, arguably, admitting or excluding, the decision is typically taken to mean more—another ratification of the status quo, another endorsement of the uncritical admission of trace and pattern evidence. Judges know they can err on the side of no hearing or no exclusion and be upheld; judges always have been.

Consider, for example, how one very fine court, the Supreme Judicial Court of Massachusetts, defines abuse of discretion in the ordinary criminal case on appeal. To show an abuse of discretion, the defendant has the burden of showing that "no conscientious judge, acting intelligently, could honestly have taken the view expressed by [her]."[3] What does this standard require to prove trial error—that the decision was outside the range of what a "conscientious," "intelligent," "honest" judge would have done? The standard is extraordinary. It virtually guarantees that trace evidence will be admitted in the future, just as it has been in the past, the NAS Report and this article notwithstanding.

Likewise, the NAS Report's concerns will not be fully met until advocacy changes. Take *United States v. Pena*,[4] for example, a case before me. In *Pena*, the defendant moved for a hearing on fingerprint testimony. The defendant's motion could not have been less substantial: There was no affidavit of an expert, only a single citation to a student note. It did not assemble the kind of

2. 509 U.S. 579 (1993).

3. Commonwealth v. Cruz, 926 N.E.2d 142, 153 (Mass. 2010) (internal quotation marks omitted).

4. United States v. Pena, No. 1:05-cr-10332-NG (D. Mass. 2008), *aff'd* 586 F.3d 105 (1st Cir. 2009), *cert. denied*, 130 S. Ct. 1919 (2010).

scholarly and practical critique of fingerprint evidence that was then available. Nevertheless, a hearing was scheduled on May 30, 2007.[5] The government was ordered to produce its witnesses. At the hearing, the government represented that its witnesses were in the hall, ready to be examined. The defense then announced it had no witnesses, no experts, and in effect, did not wish to take advantage of the opportunity to examine the government's witnesses.[6] The motion, he insisted, had only been brought "for the record." In fact, he added: "Well, with all due respect, Judge, I appreciate the Court gave me more credit than I deserve . . . ."[7]

The Court indicated how very seriously it takes these challenges, as it had, long before the NAS Report. However, in order to justify exclusion in the face of precedent favoring the admission of fingerprint identification, the defendant had to do some work—produce some data or expert testimony, real evidence suggesting the limitations of fingerprinting.[8] The Court even outlined the nature of the criticism: "'The lack of uniform standards, the problem that the proficiency rates, error rates are basically determined without a controlled group' and the fact that 'no one has ever tested the premise of uniqueness.'"[9] And the Court cited the cases in which such a presentation had been made with success, namely, *United States v. Hines*[10] and *United States v. Green*.[11]

On appeal, the First Circuit affirmed in a decision that did not fully reflect what had been done below: First, the decision below was characterized as failing to grant a *Daubert* hearing; it did not. A *Daubert* hearing had been offered and effectively waived. Second, the decision suggested that *Daubert* hearings could properly be limited to hearing novel challenges. "A district court does not abuse

5. Criminal Docket at May 29, 2007, United States v. Pena, No. 1:05-cr-10332-NG (D. Mass. 2008) (scheduling a *Daubert* hearing).

6. Counsel's initial presentation was less than coherent. He said:

> COUNSEL: Well, Judge, I filed a motion, but obviously I don't have any experts here for a variety of reasons. I've quoted a law review article, I mean, fingerprint evidence has been accepted, although I'm not sure why, but it has. The only court I could find that tossed it out was a Judge in Philadelphia who subsequently—
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> THE COURT: Pollak who changed his mind.
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> COUNSEL: —changed his mind. As I referred to in the article, I mean, there's a 26 percent chance of it being false. There are problems with how many points you make for an identification, but I guess, given the state of the law, you can just say, well, that's cross-examination, so I understand how the law is written. Beyond what I've filed, Judge, I'm in a box here, understanding that, you know, that it's one print and there's three different people, whether or not they did it blindly, I'm not sure it's so.

Transcript of May 30 Hearing at 9, United States v. Pena, No. 1:05-cr-10332-NG (D. Mass. 2008).

7. *Id.* at 11.

8. Transcript of Trial at 83–84, United States v. Pena, No. 1:05-cr-10332-NG (D. Mass. 2008).

9. *Pena*, 586 F.3d at 110 n.3 (quoting the district court opinion).

10. 55 F. Supp. 2d 62 (D. Mass. 1999).

11. 405 F. Supp. 2d 104 (D. Mass. 2005).

its discretion by dispensing with a *Daubert* hearing if no novel challenge is raised. Here, Pena raised no new favorable case law or expert testimony to challenge the admissibility of the fingerprint identification evidence . . . ."[12] It was not an issue of novelty. Challenges to fingerprints are not novel; they have just been inadequately considered. Third, the decision suggests that there had been an affirmative finding of reliability with respect to the ACE-V fingerprint method. "The district court did not abuse its discretion. Numerous courts have found expert testimony on fingerprint identification based on the ACE-V method to be sufficiently reliable under *Daubert*."[13] There had been no such finding. To the extent that there was a "finding," it was that existing precedent justified the admission of the evidence, precedent which should have been challenged but was not. Because future readers of the decision do not read the trial transcripts if they are not included in the decision, *Pena* joined the ranks of decisions a) justifying the failure to hold a *Daubert* hearing in fingerprint cases more broadly and b) confirming the reliability of the ACE-V fingerprint method.

This case, and the First Circuit's decision, led me to issue a procedural order addressing trace and pattern evidence in all criminal cases before me. The order provided that in the wake of the NAS Report, admissibility of trace evidence "ought not to be presumed; that it has to be carefully examined in each case, and tested in the light of the NAS concerns, the concerns of *Daubert/Kumho* case law, and Rule 702 of the Federal Rules of Evidence."[14] The order also described the procedures governing such a challenge.[15]

But the order is not enough. Counsel have to learn that advocacy in cases involving forensic evidence requires familiarity with the kind of issues the NAS Report raised. And further, courts need to make it clear that such familiarity may be one of the benchmarks in evaluating when assistance of counsel is constitutionally ineffective. To be sure, cases that do so are the exception and not the rule.[16] While the constitutional ineffective assistance of counsel standard under

12. *Pena*, 586 F.3d at 111 n.4 (citation omitted).
13. *Id.* at 110.
14. Procedural Order: Trace Evidence at 3, No. 1:08-cr-10104-NG (D. Mass. Mar. 8, 2010).
15. *Id.* at 3.
16. *See, e.g.*, Rossum v. Patrick, 622 F.3d 1262, 1276 (9th Cir. 2010) (remanding for an evidentiary hearing to determine whether the failure to test for fentanyl metabolites in the blood of the deceased, where there was a real possibility of contamination of the samples, was ineffective assistance of counsel); Richter v. Hickman, 578 F.3d 944, 946–47 (9th Cir. 2009) (en banc) (finding ineffective assistance of counsel warranting habeas relief where defense counsel failed to conduct an adequate forensic investigation with respect to blood spatter, serology, and pathology); Sturgeon v. Quarterman, 615 F. Supp. 2d 546, 572–73 (S.D. Tex. 2009) (finding ineffective assistance of counsel warranting habeas relief where defense counsel's failure to prepare a witness to testify about the unreliability of eyewitness identifications prevented defendant from presenting testimony that would have called into question the only direct evidence against him).

*Strickland v. Washington*[17] is notoriously low, the standard with respect to scientific evidence should be different. *Daubert* and its progeny should define what a lawyer does or does not do in a criminal case. The best cross-examiner, with the best skills in the usual driving-under-the-influence case, may not be up to par when complex forensic evidence is involved.

I fully applaud the suggestions in this article and the extraordinary work it reflects. But academics, practitioners, and forensic scientists should not let courts or lawyers off the hook.

17. 466 U.S. 668, 698 (1984).