SANGER SWYSEN & DUNKLE

Science and Wrongful Convictions

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CRIMINAL JUSTICE

By Robert Sanger

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Introduction

Invalid forensic testimony has led to numerous convictions of the innocent and, concurrently, the failure to apprehend and prosecute actual perpetrators. The criminal defense bar has fought against junk science as a matter of necessity: the client claims he or she is innocent and the scientific evidence does not fit. Prosecutors offer it, on the other hand, because it fits the theory that the police developed or that they have come to embrace. The government has the first crack at the evidence and the resources to employ or retain experts who will opine on practically anything. Defense lawyers, of course, have introduced their own witnesses to testify to questionable "scientific" conclusions.

Usually neither prosecutors nor defense lawyers are scientists. Prosecutors have the duty to seek justice and not just win cases but, on both sides in a criminal case, it becomes a competitive enterprise in which "scientific" experts can help to win. More problematic is that judges are generally not scientists either. And, whether under *Kelly-Frye* or *Daubert*, the judge is not particularly well suited to be the one to be the gatekeeper to determine what scientific evidence should come before the jury.

In this month's *Criminal Justice* column, we will look at some recent scholarship on the state of "scientific" evidence in criminal cases. In particular, we are going to look at the new report due to be published in final form in June, 2009, by the National Academy of Sciences. This Report may change the way that everyone involved in criminal litigation will look at purported experts and their proffered testimony.

It is a problem – a big problem

In a recent article in the Virginia Law Review, *Invalid Forensic Science Testimony and Wrongful Convictions*, by Peter Neufeld and Brandon Garrett (95 Va. L.R. 1, March 2009), the authors reported on the first full study of forensic science testimony in 137 trials of people who were innocent and convicted of serious crimes. In 60% of those trials, expert forensic witnesses were called by the prosecution and testified to conclusions misstating empirical data or made claims that were wholly unsupported by any data. There were 72 such prosecution witnesses; they came from 52 different laboratories, practices and hospitals; and were from 25 different states. Judges let it all in – sometimes, although too rarely, over defense objection.

The Virginia Law Review study, although more comprehensive and supported by detailed review of trial transcripts, reflects the same problem that has been discerned by others. The study found problems with bite-mark, serology, shoe print, soil, fiber and fingerprint comparison testimony. Of course, there have been numerous articles on the deficiencies in each of these areas over the years and criminal practitioners have litigated their admissibility case by case. The California Commission on the Fair Administration of Justice, in its report last year, also recognized that faulty scientific testimony was a serious cause of wrongful convictions. The Commission made several recommendations in this State which have yet to be implemented.

Ironically, faulty or even entirely bogus "scientific" evidence is more likely to be admitted in criminal cases than in civil cases. Civil litigators have certainly litigated their share of "junk" science exclusion motions but, somehow, the evidence gets before the jury more readily when liberty or life is at stake than when it is a matter of damages or other civil relief.

The National Academy of Sciences Report

Now that I have insulted not only my colleagues in the prosecutor's office but fellow defense lawyers and judges as well, let me give the support for being so blunt. On November 22, 2005, legislation enacted by the United States Congress became effective authorizing "the National Academy of Sciences to conduct a study on forensic science." The Attorney General was directed to fund an independent Forensic Sciences Committee under the NAS to:

"(1) assess the present and future resource needs of the forensic science community, to

include State and local crime labs, medical examiners, and coroners;

"(2) make recommendations for maximizing the use of forensic technologies and

techniques to solve crimes, investigate deaths, and protect the public;

"(3) identify potential scientific advances that may assist law enforcement in using

forensic technologies and techniques to protect the public;

"(4) make recommendations for programs that will increase the number of qualified

forensic scientists and medical examiners available to work in public crime

laboratories;

"(5) disseminate best practices and guidelines concerning the collection and analysis of

forensic evidence to help ensure quality and consistency in the use of forensic

technologies and techniques to solve crimes, investigate deaths, and protect the

public;

. . .

"(8) examine additional issues pertaining to forensic science as determined by the Committee."

The prestigious NAS Committee was comprised of a diverse group of scientists and others associated with the forensic science community. They held hearings, took testimony and consulted thousands of scientific report and other materials on each of several forensic "scientific" areas in which expertise is offered in courts of law. They issued a report entitled, *Strengthening Forensic Science in the United States: A Path Forward*. It is due to be published in June but a prepublication version is available at the time of this writing. The conclusions are dramatic and critisize most areas of forensic testimony that are common to criminal prosecutions with the exception of DNA. The latter is held out as a standard to which other purported forensic sciences ought to aspire. But even DNA is subject to criticism where it is subject to interpretation in cases of small samples or those that are degraded or mixed.

The NAS Report concluded as to all areas that "substantive information and testimony based on faulty forensic science analyses may have led to wrongful convictions of innocent people." They went on to say that "imprecise or exaggerated expert testimony has sometimes contributed to the admission of erroneous or misleading evidence." And they found that some purported "scientific" evidence -- like firearms "tool mark" identification, forensic odontology (bite-mark), and shoe print identification -- have little or no support in the scientific community.

The NAS Committee found that there were great disparities in the forensic science community and there is a lack of mandatory standardization, certification and accreditation among alleged experts and laboratories. But they also found that virtually all areas of proffered forensic testimony have not been subject to the scientific method or verification studies or studies that would establish the limits of the science.

The overarching problem identified in the study, however, is the subjective presentation of the science or pseudo science to the jury. They find the pervasive effect of contextual bias. In other words, there are not adequate safeguards or self-

discipline to prevent preconceived notions from affecting the actual outcome of testing and of the interpretation of data or the prejudicial presentation to the jury.

The NAS Committee states that, “The situation appears to be very different in civil cases. Plaintiffs and defendants, equally, are more likely to have access to expert witnesses in civil cases, while prosecutors usually have an advantage over most defendants in offering expert testimony in criminal cases. And, ironically, the appellate courts appear to be more willing to second-guess trial court judgments on the admissibility of purported scientific evidence in civil cases than in criminal cases.”

The NAS Report concludes that, “The adversarial process relating to the admission and exclusion of scientific evidence is not suited to the task of finding “scientific truth.” The judicial system is encumbered by, among other things, judges and lawyers who generally lack the scientific expertise necessary to comprehend and evaluate forensic evidence in an informed manner, trial judges (sitting alone) who must decide evidentiary issues without the benefit of judicial colleagues and often with little time for extensive research and reflection, and the highly deferential nature of the appellate review afforded trial courts’ *Daubert* rulings. Given these realities, there is a tremendous need for the forensic science community to improve. Judicial review, by itself, will not cure the infirmities of the forensic science community.”

Conclusion

The Report of the National Academy of Sciences is critical to the education of all of us involved in criminal litigation. Despite the conclusion that lawyers and judges are not up to it, we have no choice. Courts and lawyers will have to come to terms with the fact that old assumptions of admissibility have to be re-examined.