Forensics Under the Microscope

COMMITTEE COMMENTARY

"Forensics Under the Microscope," an extraordinary series of articles by *Chicago Tribune* reporters Flynn McRoberts, Steve Mills and Maurice Possley, ought to be required reading for law students, lawyers, and judges everywhere. Forensics is a foundation of our criminal justice system. The *Tribune* carefully explores the limits and abuses of the "science" of forensics–from fingerprinting, the use of which dates back over a hundred years, to relatively recent analyses of bite marks and ear prints. Far from being irrefutable, certain forensic methods admitted as courtroom evidence are, in fact, according to the *Tribune*, more art than science. Some may be nothing more than "junk science"–relying on unproven methods not generally accepted by the scientific community. The series also shows that, in far too many cases, labs relied upon by prosecutors and police are rife with bias and error. As a result, the innocent can be convicted and the guilty go free. We also learn that, in some areas, forensics is only slowly catching up with major scientific developments, including the responsible use of DNA testing as evidence. So-called experts continue to rely on outdated theories when investigating possible arson, even as other experts resist efforts to analyze the scientific foundation for fingerprinting. The series also reviews a number of scandals and failures in crime labs nationwide as authorities grapple with the need for oversight and audits. By highlighting the promise and the limitations of the forensic disciplines, the *Chicago Tribune* has made a critical contribution to public understanding of our criminal justice system.

The Chicago Tribune | Chicago, Illinois
Flynn McRoberts, Steve Mills and Maurice Possley, *Reporters*


Flynn McRoberts


Steve Mills


Maurice Possley

INTERVIEW with *Chicago Tribune* Reporters

Flynn McRoberts, Steve Mills and Maurice Possley are veteran projects reporters for the Tribune*. Over the past six years, they have contributed to ground-breaking investigations of criminal justice in America. Mills's and Possley's work has included series about flaws in the death penalty, false confessions, and exonerations of wrongly convicted inmates. McRoberts's work has included an examination of immigration policies that targeted Muslims in the wake of the 9/11 terrorist attacks.*

Where did the initial idea for this series come from? How was it developed?

The idea for the forensics series had been percolating for several years as we continued our work. In many of the cases Mills and Possley investigated for the 2003 series "The Legacy of Wrongful Convictions," which examined all Death Row and DNA exonerations since the mid-1970s, questionable forensic work emerged as a key issue that we believed merited its own in-depth investigation. We used files we had created for the exonerations investigation to build a computer database to precisely quantify the scope of the problem–both in Illinois and across the country. This pointed us to the most questionable forensic disciplines and the individual crime labs that illustrated the problem and broader themes. The story on arson, for instance, showed how scientific advances in a discipline are still ignored by some investigators and continue to result in flawed prosecutions–including the execution of one Texas man based on evidence that had been widely debunked. The story on bite-mark comparisons allowed us to trace the origins of a questionable forensic discipline. It also permitted us to explain how it continues to be used even though DNA testing has shown that even its leading practitioners have erred and have contributed to wrongful arrests and convictions.

How do you think "Forensics Under the Microscope" treats or offers insights or perspectives on legal issues and legal institutions? How does it do so in ways not previously addressed?

At a time when the nation is particularly enamored by the power of forensic science in the courtroom–witness the huge popularity of the *CSI* franchise on TV, the series revealed that the foundations of many of those disciplines do not withstand scientific scrutiny. It also revealed how the legal system has been all too willing to accept the assertions of forensic scientists without question.

How does the series foster public understanding? What do you see as its public impact?

As we were reporting the series, other newspapers were reporting on prosecutors' complaints of a so-called "CSI effect," that is, jurors acquitting defendants for lack of precise forensic evidence. In fact, our reporting showed the more systemic problem is that prosecutors are using unproven forensic evidence and testimony and that jurors are readily accepting it. We hope that readers–be they prosecutors, defense attorneys, judges or potential jurors–will be better informed when they enter the courtroom.

What does receiving the Silver Gavel award mean to you and your newspaper?

Winning this prestigious award from the nation's leading legal group is gratifying. We hope the ABA's recognition of the series will help ensure that its impact will extend beyond the readership of the *Chicago Tribune*, particularly to the legal community that is a key audience of this type of reporting.

The original series, along with more recent related reports, is available online at http://www.chicagotribune.com/news/specials/. Look for "Under the Microscope," October 17, 2004.

FORENSICS UNDER THE MICROSCOPE

Tribune Investigative Report

By Flynn McRoberts, Steve Mills and Maurice Possley

Tribune staff reporters

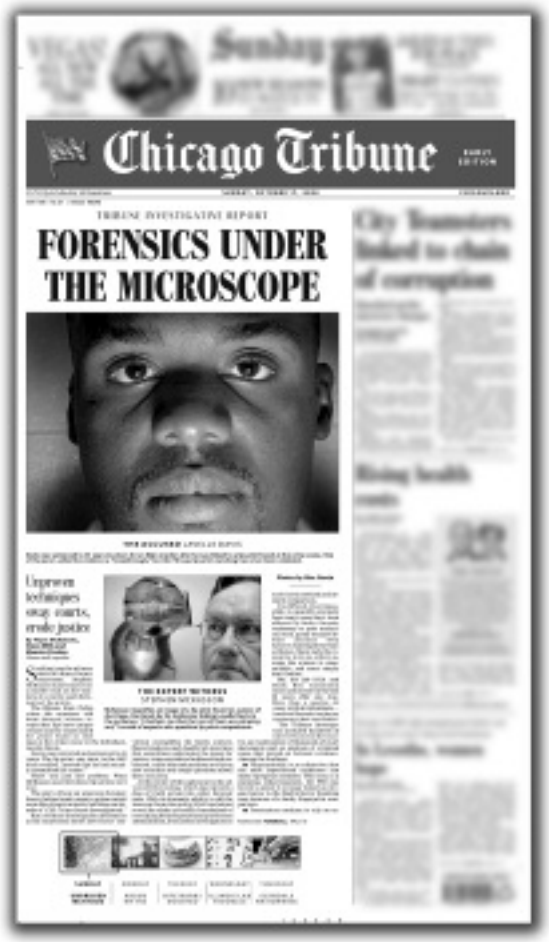
Sunday, October 17, 2004

Analysts involved in faulty forensic work typically have testified in hundreds of trials, just one indication of how widespread the impact of bad science and bad scientists can be. The lab scandals also have laid bare a more fundamental failure: Experts often express certitude based on an unfounded confidence in their forensic specialty and their ability to practice it.

"I have no problem with forensic science. I have a problem with the impression that's being given that those disciplines… can make an absolute identification of someone, and that's not the case," said Terrence Kiely, a DePaul University law professor and author of "Forensic Evidence: Science and the Criminal Law." "It's the white-coat-and-resume problem," he added. "They're very, very believable people. And sometimes the jurors will take [their testimony] as a 'yes,' where the science can only say it's a 'maybe.'"

The explosive popularity of TV shows such as "CSI" has led prosecutors and crime lab directors in recent months to complain that juries and the public have unreasonable confidence in what forensic analysts can do and how quickly they can do it. An examination of forensic science's role in the courts, however, suggests that a much broader problem is the ease with which prosecutors have brought unproven forensic theories or unchallenged forensic experts into the courtroom. In doing so, they harness the special sway such experts hold in court. Not even police officers are allowed the kind of latitude granted them–the freedom to give their opinion, not simply what they observed or heard.

Forensic experts and their testimony are being questioned because of two distinct forces reconfiguring the legal landscape. In addition to the advent of DNA testing, U.S. Supreme Court rulings have sought to impose greater scientific rigor on forensic testimony. In a defining 1993 decision, *Daubert v. Merrell Dow Pharmaceuticals*, the court demanded that such testimony not simply meet the existing standard of "general acceptance" in its field, but also address some of the hallmarks of scientific inquiry–testing, peer review and rates of error: That is precisely what has been lacking in many forensic fields, some of which have scrambled to catch up since the ruling while others continue to resist. One facet of the problem is that while those involved in forensic disciplines wear the white coat of science and portray themselves as scientists, they often do not operate under the same rules as those in other scientific pursuits. Crime labs regu-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late themselves, often operating without the scientific touchstones of experimentation and validation. Consequently, lab analysts have been allowed to testify about such evidence as ear prints and examinations of shoe insoles, though little or no research exists to support their claims that these methods can identify matches. Some respected figures in forensic science say the failure to address such problems and impose tougher standards is unacceptable.

"The stakes are too high–life, liberty, destroying families," said Dr. Joseph Davis, the chief Miami-Dade County medical examiner for four decades before he retired in 1996. "A person who is truly innocent is permanently disfigured or destroyed."

SCANDAL TOUCHES EVEN ELITE LABS

Flawed work, resistance to scrutiny seen across U.S.

By Maurice Possley, Steve Mills and Flynn McRoberts

Tribune staff reporters

Thursday, October 21, 2004

A decade ago, as Earl Washington Jr. neared his execution date, a leading DNA expert first suggested an analyst in the vaunted Virginia state crime lab might have erred in the case. The lab's director, Paul Ferrara, rejected the criticism as unfounded. In April, when a second expert hired by Washington's lawyers questioned another round of tests, Ferrara dismissed him as a "hired gun" and rebuffed calls for an outside review. Several months later, three other experts–this time not paid by the defense–reached the same conclusion. The lab's analyst, they said, had misinterpreted the evidence, but Ferrara again balked at an outside review.

"I'm not going to admit error when there is none," Ferrara said in a recent interview at the highly regarded Richmond facility, the first state lab to build a database linking evidence from unsolved crimes to suspects through their genetic profiles. Within days of that statement, the lab experienced another first. On Sept. 30, the governor of Virginia ordered an audit of the lab's work on the Washington case.

That it took a governor's edict to force one of the nation's most respected labs to allow such a review illustrates the broader problems undermining confidence in the nation's crime labs. Revelations of shoddy work and poorly run facilities have shaken the criminal justice system like never before, raising doubts about the reputation of labs as unbiased advocates for scientific truth. The far-reaching crime lab scandals roiling the courts are unlike other flaws in the criminal justice system–the rogue prosecutor, the incompetent defense attorney, the unscrupulous cop–because for years the reputation of the labs had been unquestioned.…

But the consequence of lab errors, whether due to incompetence, imprecision or fraud, is frequently the same–an innocent person behind bars. A *Tribune* examination of the 200 DNA and Death Row exoneration cases since 1986–including scores of interviews and a review of court transcripts and appellate opinions–found that more than a quarter involved faulty crime lab work or testimony. In recent years, evidence of problems ranging from negligence to outright deception has been uncovered at crime labs in at least 17 states. Among the failures were faulty blood analysis, fingerprinting errors, flawed hair comparisons and the contamination of evidence used in DNA testing.

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