

PROSECUTORS AND CORRUPT SCIENCE

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I. INTRODUCTION

Scientific evidence has made dramatic and well publicized contributions to improving the factual accuracy of criminal convictions. A 1996 Department of Justice study documented twenty-eight cases in which DNA evidence revealed that innocent defendants had been wrongly convicted, many serving substantial prison terms.¹ Over and over in recent years, newspaper headlines have announced DNA exonerations and wrongful convictions. The 2000 book, *Actual Innocence*, details sixty-two of the Innocence Project's first DNA exonerations of wrongfully convicted defendants.² The Innocence Project's most recent data reveals 212 such exonerations.³ Other similar projects from around the country tell the same sad stories. In these cases, scientific evidence in the form of DNA has helped reveal the truth years after a trial had produced an inaccurate conviction.

A sinister aspect of forensic science, though, has also come to light in recent years. Ironically, scientific evidence in the form of DNA testing has at times revealed that previous use of corrupt scientific evidence at trial helped bring about a wrongful conviction. Indeed, later valid DNA testing has in some cases revealed that prior corrupt DNA testing helped send an innocent person to jail.⁴

An investigation of Fred Zain, the former head serologist at the West Virginia State Police Crime Laboratory, for example, showed that between 1979 and 1989, he falsified test results in as many as 134 cases, almost always in favor of the prosecution.⁵ In *State v. Woodall*, DNA evidence showed in a post-conviction proceeding that Glen Dale Woodall was innocent and led to an investigation of the blood tests by

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1. EDWARD CONNORS ET AL., CONVICTED BY JURIES, EXONERATED BY SCIENCE: CASE STUDIES IN THE USE OF DNA EVIDENCE TO ESTABLISH INNOCENCE AFTER TRIAL ii, 34 (1996).

2. JIM DWYER, PETER NEUFELD & BERRY SCHECK, ACTUAL INNOCENCE: FIVE DAYS TO EXECUTION AND OTHER DISPATCHES FROM THE WRONGFULLY CONVICTED app. 2 (2000).

3. The Innocence Project, <http://www.innocenceproject.org> (last visited Jan. 28, 2008).

4. See Jane Campbell Moriarty, "Misconvictions," *Science, and the Ministers of Justice*, 86 NEB. L. REV. 1, 5 (2007).

5. See Paul C. Giannelli, Essay, *The Abuse of Scientific Evidence in Criminal Cases: The Need for Independent Crime Laboratories*, 4 VA. J. SOC. POL'Y & L. 439, 442, 447 (1997).

Zain that had helped convict Woodall.⁶ The revelation of the falsity of these tests in turn led to a wider investigation of Zain.⁷

Both scholars and journalists have tended to focus on the science involved and the expert witnesses who bring it into the criminal courtroom. This Article, by contrast, focuses on the less frequently examined questions raised by the role prosecutors have played in this abuse.⁸ How did they contribute to it? Why did they fail to correct it? Why were the prosecutors who called Zain, for example, either unwilling or unable to prevent corrupt scientific evidence from causing a criminal case to end in an erroneous conviction?

II. *CARROLL V. STATE*

A number of cases involving prosecutorial misuse of scientific evidence have achieved substantial notoriety. Professor Paul Giannelli, for example, has written extensively about West Virginia serologist Fred Zain, whose corruption was revealed through DNA evidence.⁹ Zain was the subject of a major investigation and received coverage on the CBS news program *48 Hours*.¹⁰ More recently, public attention has focused on the misconduct of prosecutor Michael Nifong in the Duke lacrosse case.¹¹ Nifong failed to reveal to the defense the results of exculpatory DNA tests and instructed his expert witness to leave those exculpatory results out of his report. For these and other actions, Nifong has been disbarred.¹²

I discuss in this Part a more low profile and in some ways more troubling case than many of the wrongful conviction cases that have received scholarly and media attention in recent years. *Carroll v. State*,¹³ a Georgia case that has received little if any academic or media attention, illustrates many of the features common to cases involving prosecutorial use of corrupt scientific evidence.

Carroll was the nineteen-year-old driver of a car in which two

6. See *In re Investigation of the W. Va. State Police Crime Lab, Serology Div.*, 438 S.E.2d 501, 502-03 & n.2 (W. Va. 1993).

7. *Id.* at 503.

8. Professor Paul Giannelli and I have recently examined the ethical dimensions of prosecutorial abuse of scientific evidence. See Paul C. Giannelli & Kevin C. McMunigal, *Prosecutors, Ethics, and Expert Witnesses*, 76 FORDHAM L. REV. 1493 (2007).

9. See Giannelli, *supra* note 5, at 442-49.

10. CBSNews.com, *48 Hours: Expert Witness*, <http://www.cbsnews.com/stories/1999/01/28/48hours/main30458.shtml> (last visited Jan. 28, 2008).

11. See, e.g., Adam Liptak, *Prosecutor Becomes Prosecuted*, N.Y. TIMES, June 24, 2007, at 4.

12. N.C. State Bar v. Nifong, No. 06 DHC 35 (Disciplinary Hearing Comm'n of the N.C. State Bar July 31, 2007).

13. 474 S.E.2d 737 (Ga. Ct. App. 1996).

adults and a toddler were passengers. During a heavy rainstorm, Carroll lost control of the car, which went off the road, turned over, and ejected one of the passengers, who died. Another passenger was injured. Neither alcohol nor drugs were involved.¹⁴ Carroll was charged with vehicular homicide and serious injury by vehicle, both felonies.¹⁵

The first “expert” witness used by the government to provide scientific evidence in the form of accident reconstruction calculations and conclusions turned out not in fact to have been an expert. He was the police officer who investigated the accident scene and was taking, but had yet to complete, his first class in accident reconstruction. Despite lack of qualifications, he nonetheless concluded in a written “information sheet” and in his testimony at the preliminary hearing in the case, that the defendant’s speed at the time of the accident was seventy miles per hour in a thirty-five miles per hour zone. He also concluded that road conditions “had no impact on the accident.”¹⁶

To the investigating officer’s credit, he showed his calculations to the instructor for the accident reconstruction course in which he was enrolled. His instructor, who was, in fact, an expert in accident reconstruction with extensive training and experience, spotted an error in the officer’s calculations. Proper calculations based on the data the officer recorded at the accident scene indicated a speed of forty-four miles per hour rather than seventy miles per hour.

The investigating officer asked the instructor to serve as the expert in Carroll’s upcoming trial and the instructor agreed to do so. About a week prior to the trial, the instructor visited the accident site and collected his own data about speed and road conditions. Having done so, he contradicted both of the investigating officer’s earlier conclusions. First, he concluded that there was insufficient data to make any speed calculation. Second, in the instructor’s expert opinion, road conditions had caused what he considered to be an accident rather than reckless driving. The pavement was uneven, the road conditions had allowed standing water to collect, and the shoulder of the road dropped off creating a negative superelevation.

Six days before the trial date, both the investigating officer and the instructor informed the prosecutor of the inaccuracies in the investigating officer’s information sheet and preliminary hearing testimony. Though the prosecutor had revealed the prior speed miscalculation, he did not reveal what the true expert, the instructor, had

14. *Id.* at 738.

15. *Id.*; see GA. CODE ANN. § 40-6-393 (2007); GA. CODE ANN. § 40-6-394 (2007).

16. *Carroll*, 474 S.E.2d at 738.

concluded after his visit to the accident site.

On the day set for trial, Carroll pled guilty to both the vehicular homicide and serious injury charges, apparently without independent knowledge of her exact speed, the road conditions, or what caused her to lose control of her car and relying on the investigating officer's erroneous conclusions. The defendant appears not to have hired her own expert.¹⁷

At the guilty plea hearing, the prosecutor made no disclosure of the existence or conclusions of the state's true expert.¹⁸ Nor did he disclose (1) that the investigating officer, who had testified as the state's expert at the preliminary hearing, was not in fact qualified as an expert; (2) that his speed calculation lacked an adequate foundation; or (3) that his conclusion about the role of road conditions was erroneous. At the guilty plea hearing, defense counsel "stated that he expected the State's evidence to show that Carroll was driving at approximately 44 mph." The trial judge inquired of the prosecutor "whether that account comported with the State's version," and "the prosecutor answered in the affirmative."¹⁹ So, in addition to not revealing clearly material and exculpatory evidence to the defense or the court, the prosecutor also lied to the trial judge about the state's evidence in the case.

The proposed testimony of the state's true expert was eventually revealed to the defendant, though the reported opinion does not state how that was accomplished.²⁰ Carroll then moved to withdraw her guilty plea on the basis of a violation of *Brady v. Maryland*.²¹ Remarkably, rather than simply admitting the misconduct and apologizing to the court and the defendant, the prosecutor's office resisted the motion, claiming that the true expert's proposed testimony was neither material nor exculpatory.²²

The Georgia Court of Appeals took none of the prosecution's arguments on appeal seriously and allowed Carroll to withdraw her guilty plea. Although it clearly reached the right result on the merits of Carroll's motion, the court's opinion sadly minimizes the prosecutor's misconduct. For example, rather than calling the prosecutor's "affirmative response" to the trial court's inquiry about whether the state's evidence would show that Carroll was going forty-four miles per hour at the time of the accident a misrepresentation, or simply a lie, that

17. *Id.* at 738-39.

18. *Id.* at 739.

19. *Id.* at 740.

20. *See id.* at 738.

21. *Id.* (citing *Brady v. Maryland*, 373 U.S. 83 (1963)).

22. *Id.* at 739.

violated the prosecutor's ethical obligations, the court only noted that the prosecutor's response "did not promote the truth-seeking function on which the judicial process is founded."²³

The *Carroll* case exhibits a number of characteristics common to cases involving prosecutorial use of corrupt scientific evidence. In these cases, inadequate representation by defense counsel, often due to a lack of resources to obtain a defense expert, allows and encourages police and prosecutorial use of corrupt scientific evidence.²⁴ Based on the reported opinion in *Carroll*, it appears that Carroll's lawyer failed to discover and expose the investigating officer's lack of expert qualifications either through discovery or through cross-examination at the preliminary hearing at which the officer testified to his accident reconstruction conclusions.²⁵ Nor does it appear that defense counsel hired an expert despite the crucial nature of accident reconstruction evidence in the case.

Another common feature in criminal cases involving corrupt science is culpability on the part of the prosecutor. In *Carroll*, the facts recounted in the opinion suggest at least negligence on the part of the prosecutor in using the investigating officer as an expert witness at the preliminary hearing despite his lack of qualifications. The facts in the opinion indicate a higher level of culpability—knowledge and purpose—on the part of the prosecutor at the guilty plea hearing in regard to failing to reveal exculpatory information, failing to correct prior discovery and testimony the prosecutor knew to be erroneous, and misrepresenting the state's evidence to both defense counsel and the trial court.²⁶

A third common feature is escalation of commitment on the part of the prosecution. Once the state has taken a position on something—whether the guilt of a defendant through a charging decision or the testimony of a witness through a decision to call the witness—both police and prosecutors display extraordinary resistance to changing that position, even if later information reveals that the position is unsound.²⁷

23. *Id.* at 740.

24. Giannelli, *supra* note 5, at 473-74, 478.

25. *See Carroll*, 474 S.E.2d at 738.

26. *Id.* at 740.

27. *See, e.g., Miller v. Pate*, 386 U.S. 1, 2, 5-6 (1996) (The Supreme Court reversed a conviction for murder when it was discovered that the prosecution misrepresented a pair of paint-stained shorts as blood stained shorts. The prosecution was aware at the time of trial that the shorts were stained with paint and not blood and "deliberately misrepresented the truth."); *In re Investigation of the W. Va. State Police Crime Lab, Serology Div.*, 438 S.E.2d 501, 503-04 (W. Va. 1993) (report into the conduct of head serologist Zain shows that "scientifically inaccurate, invalid, or false testimony or reports were given by Trooper Zain" and that his "supervisors may have

In *Carroll*, the appropriate course of action, once the true expert's conclusions were known, would have been to dismiss the charges against Carroll for lack of evidence. Instead, the prosecution proved incapable of rethinking and altering its initial poorly informed position that the evidence in the case warranted a criminal conviction. The prosecution continued to maintain an embarrassingly indefensible posture throughout not only the initial trial court proceedings resulting in Carroll's conviction, but also throughout later trial and appellate proceedings on Carroll's motion to withdraw her guilty plea, after the exculpatory information was known to both the defense and the courts.²⁸

III. WHY THIS BEHAVIOR?

Why do prosecutors engage in such misconduct? Why do they negligently, recklessly, knowingly, or purposefully make use of corrupt scientific evidence? The following sections address some possible answers to these questions.

A. Defense Counsel

In criminal cases involving corrupt scientific evidence, two features stand out: (1) lack of aggressive cross-examination by defense counsel of the prosecution's scientific experts and (2) lack of counterproof in the form of tests and expert testimony offered by the defense. Highly visible cases in which defendants with substantial resources have engaged in extensive cross-examination of prosecution experts and offered their own scientific counter-proof, such as the murder prosecution of O. J. Simpson, may create a perception that in criminal cases involving scientific evidence both sides typically have ample resources regarding scientific proof.²⁹ But the everyday reality is in stark contrast to this image. The more typical scenario is that whatever scientific evidence is offered by the prosecution goes without significant challenge to its accuracy either by defense counsel through cross-examination or by a defense expert.³⁰ In other words, the mechanisms of cross-examination and counter-proof, which the adversary system relies on to assure factual accuracy, are strikingly absent in regard to scientific evidence in many criminal cases, even ones that go to trial.

ignored or concealed complaints of his misconduct").

28. *Carroll*, 474 S.E.2d at 739.

29. See Michael Lynch, *The Discursive Production of Uncertainty: The OJ Simpson 'Dream Team' and the Sociology of Knowledge Machine*, 28 SOC. STUD. OF SCI. 829, 832, 854 (1998).

30. See Paul C. Giannelli, "Junk Science": *The Criminal Cases*, 84 J. CRIM. L. & CRIMINOLOGY 105, 118-19 (1993); *supra* note 24 and accompanying text.

The reason for passivity on the part of the defense in response to the prosecution's scientific evidence is not always apparent. One possibility is that defense counsel think the scientific evidence irrefutable and make a strategic choice not to challenge it. But the literature that describes the unavailability to the typical defendant of the resources needed to challenge scientific evidence offered by the prosecution, offers a more plausible explanation.³¹ Many defendants simply do not have the money to hire their own experts to present counter-proof or to provide defense counsel with the information and assistance needed to effectively cross-examine a prosecution expert. Most defense lawyers, without access to an expert, do not, on their own, have the scientific knowledge needed to effectively cross-examine a government expert. In many of the wrongful conviction cases in which DNA testing has resulted in eventual exoneration, the defendant gained access to adequate scientific expertise only during post-conviction review, too late to help the initial fact finder, usually the trial jury, in assessing the accuracy of the scientific evidence presented by the government at trial.³²

A system that allows prosecutors, police, and prosecution experts to present scientific evidence without effective challenge, a system that is adversarial in name and theory but non-adversarial in reality, is likely to create habits and attitudes conducive to the abuse of scientific evidence. By undermining incentives that help keep them honest in preparing for trial, it creates for both prosecutors and government experts the temptation and the opportunity to use corrupt scientific evidence.

B. Rational Calculation

One explanation advanced for why some prosecutors use corrupt scientific evidence is simply that they want to win their cases. In other words, the prosecutor's self-interest in winning may eclipse any sense of obligation to the defendant, the court, or the criminal justice system, typically thought to inhere in the prosecutor's role as a minister of justice. The competitive urge to win no doubt explains much prosecutorial misconduct. But that explanation, in my view, has its limits. It fails to account for the fact that prosecutors operate at the center of and subject to a constellation of varied incentives, many of

31. See, e.g., Paul C. Giannelli, *Ake v. Oklahoma: The Right to Expert Assistance in a Post-Daubert, Post-DNA World*, 89 CORNELL L. REV. 1305, 1331-32 (2004).

32. See, e.g., Paul C. Giannelli, *Scientific Evidence in Civil and Criminal Cases*, 33 ARIZ. ST. L.J. 103, 108-110, 115 (2001) (noting various examples of defendants whose attorneys did not challenge prosecution expert witnesses during the trial phase).

which should counterbalance the incentive to win. These presumably include incentives to: (1) convict the person who committed the crime; (2) avoid convicting an innocent person; (3) avoid wasting scarce resources if a crime was not in fact committed; (4) avoid disciplinary or other sanctions for misconduct; (5) avoid damage to the individual prosecutor's professional reputation; and (6) avoid damage to the reputation and integrity of the prosecutor's office.

Even if the prosecutor is simply concerned about her record of wins and losses, she still would have a counter-incentive to avoid unreliable evidence for the simple reason that if the unreliability is revealed at trial, it may be devastating to the case and occur at a time when it is too late to attempt to remedy it by developing other evidence, calling a more reliable expert, offering a more attractive plea bargain, or dismissing the case to avoid the embarrassment of losing the case at trial if the defense succeeds at finding the weakness and revealing it to the jury. Perhaps the prevalence of plea bargaining, along with the frequent lack of effective challenge to scientific evidence from the defense, numbs some prosecutors to the influence of such a counter-incentive.

During this conference on *Lawyering on the Edge*, a number of speakers asked questions such as "Who would take that chance?" or "What were they thinking?" in relation to a lawyer engaging in risky conduct.³³ One can ask these questions, for example, about the conduct of prosecutor Michael Nifong in failing to reveal a DNA report in the Duke lacrosse case. Certainly winning reelection by a largely African-American constituency appears to have created a powerful corrupting influence on Nifong's decisions in charging and prosecuting the defendants in the Duke lacrosse case.³⁴ But even if oblivious to concerns about innocence, no prosecutor engaging in rational calculation could have concluded that the DNA evidence Nifong essentially hid would not eventually be revealed in a case which had drawn so much publicity and in which the defendants were represented by aggressive and well funded defense counsel. One would also think that any rationally calculating prosecutor in Nifong's position would have realized the negative consequences that would follow the eventual revelation of the exculpatory DNA. Wouldn't a rationally calculating prosecutor, even one motivated only by self-interest, have abandoned, rather than escalated, his commitment to a position he had to know would shortly and publicly be revealed as both practically and morally untenable?

33. Symposium, *Lawyering at the Edge: Unpopular Clients, Difficult Cases, Zealous Advocates*, 36 HOFSTRA L. REV. 261-600 (2007).

34. William Yardley, *Prosecutor in Duke Case Is Winner in Election*, N.Y. TIMES, May 3, 2006, at A16.

One response to the notion that disciplinary or other sanctions create a counterweight to prosecutorial misconduct is that such sanctions are very rarely imposed on prosecutors. In calculating the potential power of sanctions, we commonly think in terms of both the severity of the sanction and the certainty that the sanction will be imposed. It is a common lament in the area of prosecutorial misconduct that prosecutors are seldom sanctioned for misconduct and, when they are, the sanctions tend not to be severe.³⁵ The disbarment of Michael Nifong³⁶ is highly unusual, and the organized bar's past record of inaction regarding prosecutorial misconduct gives good reason to doubt that the discipline of Nifong will prove to be anything other than an aberration.

I do not dismiss the sort of rational calculator explanations discussed above. Certainly, desire to win, lack of effective challenge from the defense, and lack of sanctions from courts and the bar play a role in allowing and encouraging prosecutorial misuse of scientific evidence. But I believe that we need to look further than rational calculation to fully understand such misconduct. I find persuasive the objection raised by John Steele in his talk to the question "What was the lawyer thinking?", that it assumes a fact not in evidence, namely that the lawyer was in fact thinking.³⁷ In the sections below, I discuss some possible explanations for prosecutorial misconduct other than rational calculation.

C. Psychology

Psychology offers insight into professional dysfunction. In his recent book, *How Doctors Think*, Jerome Groopman, a professor of medicine at Harvard Medical School, describes the following analogy offered by a pediatrician he interviewed:

Imagine watching a train go by. You are looking for one face in the window. Car after car passes. If you become distracted or inattentive, you risk missing the person. Or, if the train picks up too much speed, the faces begin to blur and you can't see the one you are seeking.³⁸

Pediatricians see a steady flow of healthy children afflicted with relatively minor ailments, such as a virus or strep throat. Because of the high volume of such healthy children, it is easy for the pediatrician to miss, like the face in a crowd on a passing train, the unusual child

35. See ANGELA J. DAVIS, *ARBITRARY JUSTICE: THE POWER OF THE AMERICAN PROSECUTOR* 135-41 (2007).

36. See *supra* notes 11-12 and accompanying text.

37. John Steele, *Scandals Great and Small*, 36 *HOFSTRA L. REV.* 497 (2007).

38. JEROME GROOPMAN, *HOW DOCTORS THINK* 77 (2007).

suffering from meningitis. Groopman describes this as the threat of being “lulled by the monotony of the mundane.”³⁹

Prosecutors spend much of their time immersed in the mass processing of guilty defendants. This processing relies on guilty pleas in which little concern is shown for corroborating the accuracy of the self-condemnation that underlies such pleas. The large number of people processed by our criminal justice system itself creates pressures on prosecutors to resolve cases quickly and with the least expenditure of resources. Under such conditions, prosecutors run a risk similar to the one Dr. Groopman describes facing pediatricians, of missing the innocent defendant. Or, worse than simply missing the innocent defendant, prosecutors may entirely stop looking for innocent defendants among the guilty they confront each day. Guilty plea negotiations and hearings in which little concern is expressed for assuring the accuracy of convictions reinforce this danger of being lulled by the monotony of processing so many guilty criminal defendants.

This “face in the passing train” phenomenon may help explain why some prosecutors and police early on in the handling of a case erroneously commit themselves to a belief in a defendant’s guilt. Once committed to such a belief, the well-documented psychological phenomenon of escalation of commitment helps explain the extraordinary reluctance prosecutors show toward changing that position.⁴⁰

IV. POSSIBLE REMEDIAL STEPS

What steps might remediate some of the problems described above? The following paragraphs suggest some possibilities.

A. The Need for Information

Although wrongful conviction cases have revealed high rates of both misuse of scientific evidence and prosecutorial misconduct, and several commentators have addressed prosecutorial misuse of scientific evidence,⁴¹ we have little information about what percentage of

39. *Id.* at 78.

40. *See, e.g.*, MAX H. BAZERMAN & MARGARET A. NEALE, *NEGOTIATING RATIONALLY* 9 (1992).

41. *See* Bennett L. Gershman, *Misuse of Scientific Evidence by Prosecutors*, 28 OKLA. CITY U. L. REV. 17, 17 (2003); Moriarty, *supra* note 4, at 23 (“To date, the legal system and commentators have paid little attention to prosecutorial discretion in the use of unreliable expert testimony—despite mounting evidence that misconceptions have been based upon unreliable expert testimony.”); Michael J. Saks, *Scientific Evidence and the Ethical Obligations of Attorneys*, 49 CLEV. ST. L. REV. 421, 421 (2001) (“What are the legal and ethical responsibilities of attorneys

prosecutors actually use corrupt scientific evidence or what drives such misconduct when it occurs. Bennett Gershman notes:

The prosecutor's misuse of scientific evidence to charge and convict has not been sufficiently examined. Courts and commentators critiquing abuses of scientific evidence in criminal cases rarely focus on the prosecutor's role in the process. Issues typically discussed are the questionable nature of the evidence, the controversial manner in which the evidence was acquired and tested, whether the expert arrived at her conclusions in a scientifically reliable manner, and whether the expert's courtroom testimony was false or misleading. The prosecutor's control over and manipulation of the scientific evidence to shape the fact-finder's evaluation of the facts and to persuade the fact-finder of the defendant's guilt usually escapes scrutiny.⁴²

Consistent with Professor Gershman's description, there is little in a reported case such as *Carroll*, described above, to help us understand what influenced the prosecutor to act as he did in that case and how we might prevent such behavior. In that regard, the *Carroll* case is typical. And because professional discipline of prosecutors is rare, the disciplinary process also has provided almost no insight into prosecutorial misconduct generally or in regard to scientific evidence in particular.

Investigation of prosecutorial involvement in the misuse of scientific evidence would be an important first step toward understanding and correcting such conduct. Such investigations might be instigated and conducted by a number of different government offices or organizations, such as the United States Department of Justice, a state Attorney General's office, a state bar, a national district attorney's association, or the American Bar Association.

B. Changing Prosecutorial Conduct Standards

In theory, our criminal justice system relies primarily on an adversary system to deal with bad scientific evidence. Each side is envisioned aggressively challenging the opponent's scientific evidence and presenting scientific evidence of its own, and the jury is trusted to separate the good from the bad. In some cases, especially high profile cases involving well-funded defendants, reality lives up to the theory. But in many, perhaps most, criminal cases in which scientific evidence is used, what takes place is a one sided presentation by the government.

when offering scientific expert evidence to courts?").

42. Gershman, *supra* note 41, at 17.

If we continue to adhere to the adversarial model for the presentation of scientific evidence in criminal trials, then perhaps the most obvious remedial step is to assure that defense counsel have access to adequate resources so that the reality of the criminal trial process comes closer to its theoretical view of cross-examination and counter-proof. Increasing funds available to appointed defense counsel would help achieve this in cases involving indigent defendants. It would leave unremedied, though, cases involving private but poorly funded defense counsel.

An alternative approach is to remove the adversarial pretense surrounding presentation of scientific evidence at criminal trials and openly acknowledge and accept the one sided system that in fact prevails today in many cases. The adversarial guarantees of cross-examination and counter-proof could be replaced by mechanisms to help assure the reliability of such a one-sided system, such as having the court select the scientific expert and having her report be available to both sides prior to trial.

Another measure consistent with the recognition that the adversary system does not function effectively in regard to scientific evidence in criminal cases is altering current standards of prosecutorial conduct, such as those found in ethics rules and under due process, to recognize a gate-keeping function for prosecutors in regard to scientific evidence similar to the one recognized in recent years for trial judges.⁴³ One way to do this is to expand the types of culpability required for an ethics violation beyond the knowing use of corrupt scientific evidence to include reckless and negligent prosecutorial use of scientific evidence.⁴⁴ In short, rather than prohibiting only knowing use of false evidence, as current standards do, both reckless and negligent use of corrupt scientific evidence by a prosecutor would constitute both an ethics and a due process violation.⁴⁵

C. Audits

Another possible response to prosecutorial misuse of scientific evidence would be to audit the files of particular prosecutors or prosecutor offices in a fashion similar to audits conducted of crime

43. See Advisory Committee's Note to 2000 Amendment to Federal Rule of Evidence 702 ("The amendment affirms the trial court's role as gatekeeper and provides some general standards that the trial court must use to assess the reliability and helpfulness of proffered expert testimony.").

44. For detailed treatment of possible expansion of the culpability triggering ethics and due process violations, see Giannelli & McMunigal, *supra* note 8, and Moriarty, *supra* note 4, at 34-36.

45. I use recklessness and negligence here as those terms are defined by the Model Penal Code. See MODEL PENAL CODE § 2.02(2)(c)-(d) (Official Draft 1962).

laboratories. Such audits could be done either randomly or in response to instances or patterns of misconduct. They could be done voluntarily or involuntarily, perhaps as part of a court imposed sanction for misconduct involving discovery abuse or misuse of scientific evidence. The state Attorney General's office, the state bar, or the American Bar Association might conduct the audits using teams of independent lawyers.

Such audits could provide a number of benefits. As a potential sanction, they could deter some types of misconduct. If conducted randomly, they would increase the chance of misconduct being discovered and thus increase the certainty of sanction. Audits would also provide information about how much prosecutorial misconduct is taking place and what is driving the misconduct, especially if the lawyers conducting the audit had authority not only to review case files, but also to interview the prosecutor who engaged in the misconduct. If imposed as a sanction in a case such as *Carroll*, an audit could function as a sort of legal autopsy, giving us a window on the prosecutorial pathology suggested by the appellate opinion in that case.

V. CONCLUSION

Advances in forensic science in recent decades, used by both prosecutors and defense counsel, have made unquestionable contributions to both accuracy and justice in criminal cases. At the same time, though, a disturbing pattern of misuse of scientific evidence by prosecutors and government experts has come to light. Though we currently lack the data that systematic study of such misconduct would provide, the number of cases showing such misconduct provide a genuine cause for concern and should move us to study, understand, and take measures such as those suggested in this Article to curb such abuse.