the boundary of my expertise. These issues are not purely questions of ordinary criminal procedure; rather, these topics also implicate broad and deep questions of national security law and international law. It is thus not coincidental that this section ends on a sincere note of self-doubt: "Part of issue-spotting is identifying what you don't know and need to learn."

In retrospect, there may be rather too little self-doubt in the various pieces of this book—an occupational hazard of being a constitutional law professor, perhaps?

THE CONCLUDING ESSAYS in this chapter present my evolving thinking about one of the most promising and most terrifying developments in modern science: our increasing ability to reliably reconstruct past events by using DNA evidence. One future utopia would be a world in which DNA not only frees the innocent and finds the guilty but also prevents various crimes from ever occurring because these crimes will be so easy to solve that would-be criminals will forbear. But in a future dystopia, scheming government officials could use DNA databases to probe and expose all sorts of private matters in order to harass or intimidate political opponents. For example, DNA can prove that the actual biological father of A is not B (as both A and B thought) but C. In my earliest piece on DNA, a 2001 essay in the *American Lawyer* entitled "A Safe Intrusion," I was too glib, treating DNA as just an improved version of fingerprinting. But fingerprints cannot prove or disprove paternity, and paternity issues are intimately connected with sexual privacy in ways that I did not adequately appreciate in 2001. Thus, in a later piece published in the *New York Times* in 2002, "A Search for Justice in Our Genes," I tried to address the matter with more precision. In both pieces, I called for the creation and super-strict regulation of a truly comprehensive DNA database that would effectively include the DNA of all Americans. In issuing this call I was years ahead of courts and most commentators.[2]

In 2013, the Supreme Court took a big step in my direction by the slimmest of margins in a landmark case, *Maryland v. King*, which allowed DNA to be taken from mere arrestees, as opposed to actual convicts. (The case is discussed in this chapter's closing essay, which Neal Katyal and I cowrote for the *New York Times* shortly after the *King* decision came down.) America is still years, perhaps decades, away from the world that I envisioned in 2001 and 2002, a world in which virtually everyone's DNA is part of a comprehensive, secure database. But we appear to be moving in that direction.

As a matter of equality and fairness, why should mere arrestees, and only arrestees, be forced into providing DNA samples? Some arrestees are innocent persons who are never subsequently convicted of any wrongdoing. If arrestees are disproportionately nonwhite, the database will be racially skewed in ways that put blood relatives of arrestees (also disproportionately nonwhite) at greater risk of government detection in situations involving partial DNA matches. (Recall that unlike fingerprints, DNA generates information implicating biological relations. Although Maryland's database system has special rules limiting familial searches, other jurisdictions are less punctilious.) *Maryland v. King* may thus be merely a way station on the road to a more comprehensive DNA-collection system at some later date—a system that, though more intrusive in certain obvious respects, would also be more racially equal than the status quo. (By analogy, airports today oblige everyone to go through metal detectors, not just those who look faintly Middle Eastern.)

Although I was among the first in the American legal academy to advocate for this end result, I confess that, years later, I am extremely nervous about this prospect. Of all the issues discussed in this book, DNA databases may be the topic on which I am now the most uneasy about how my ideas will eventually be judged by posterity.

HOW COURTS LET LEGAL GAMES HIDE THE TRUTH

Washington Post, Sunday, April 16, 1995

A criminal trial is not a football game, even if it stars O. J. Simpson. But viewers of the Simpson case proceedings could be forgiven for confusing the two. Who can doubt, as they watch Johnnie Cochran do battle with Marcia Clark, that a sporting-match mentality has come to dominate American criminal procedure? And, entertaining as the match may be, who can escape the queasy feeling that something important is being overlooked?

That neglected something is, of course, the truth. Truth, once thought to be the main concern of the judicial process, is now too often lost in the gladiatorial excesses of our current system. But perhaps some good will come from the very extravagance of the Simpson trial, following hard, as it does, on the heels of other extravaganzas such as the Menendez brothers murder trials and the William Kennedy Smith rape trial. Perhaps it will fuel reform

by a military commission (although the administration might decide to amend the regulation). Currently, only alien terrorists fall within the regulation. The administration may have thought this limitation would ease public concern— "Don't worry, Americans: You are safe from being branded a terrorist and tried without all the usual civilian safeguards." But in fact the administration's regulation introduces a discrimination against aliens that is constitutionally troubling. When the infamous Alien and Sedition Acts of 1798 targeted certain aliens for disfavored treatment, the party of James Madison and Thomas Jefferson famously defended alien rights, and after the Civil War, our Constitution was specifically amended to shield the rights of noncitizen aliens to "due process" and "equal protection."

Question 6: How do international law rules and the laws of war affect the picture?

I'm not sure. Part of issue-spotting is identifying what you don't know and need to learn.

A SAFE INTRUSION

American Lawyer, June 2001

As scientists unlock the intricacies of the genetic code, lawyers must revise the intricacies of the legal code. DNA technology can work miracles—exonerating the innocent, identifying the guilty, reassuring the public, and vindicating the victim. The technology can also imperil legitimate privacy interests by exposing intimate details of a person's existence to Big Brother and Big Business. Current legal doctrines were not crafted with the promise and threat of this technology in mind. Optimal revisions will require lawyers of all sorts to step back from their narrow job descriptions and see the broader social interest.

A recent ruling from Virginia provides a convenient starting point for analysis. In 1990, the state convicted James Harvey of rape and sentenced him to twenty-five years. Aided by the New York–based Innocence Project, Harvey now seeks access to the rape kit containing biological evidence from the victim and the crime scene in order to test whatever semen DNA may be found. The state prosecutor has resisted, and in mid-April a federal district judge ruled in Harvey's favor, reasoning that withholding the kit and its

potentially exculpatory evidence violates Harvey's due process rights. Judges in other jurisdictions have declined to order post-conviction testing on similar facts, and the issue is likely to come before the Supreme Court in the not-too-distant future.

But why are so many of these cases in court at all? Why aren't more prosecutors voluntarily allowing convicts access? Because of the expense of the DNA test? If so, the state can't complain if the defense team is itself willing to shoulder this cost. Because of the state's interest in repose and finality—that is, the interest in not having to reopen earlier adjudications that seemed fair at the time? This ignores our system's compelling counterinterest in substantive justice. If the DNA casts strong doubt on or indeed conclusively disproves the convict's guilt, the state's true interests are ill served by suppressing this information. A just state cares not about upholding convictions, per se, but about finding the bad guys.

If the wrong man is in prison, perhaps the true culprit is on the loose. Sometimes the interest in finality is linked to "closure" for the victim's family and friends. But surely this interest would not allow the state to ban post-verdict private detectives, censor skeptical journalists, or muzzle new eyewitnesses; nor should it allow the state to suppress the DNA evidence. A government with confidence in the general fairness of its criminal justice system should welcome the double-check of independent DNA tests, which can lay to rest all lingering doubts. Indeed, refusal to allow new testing can undermine the confidence of the public and the victim: What is the state trying to hide? And in those cases where the DNA disproves the trial verdict, these tests serve an invaluable auditing function, helping the state determine if there is any systematic pattern to its past mistakes. For example, new DNA tests in Oklahoma have recently led investigators to confront the possibility of serious malfeasance in one particular police lab.

A cynic might say that prosecutors are simply fighting to maintain their winning percentage, resisting anything that might prove their office fallible (or worse). *Res judicata* means never having to say you're sorry.[9] But there are a couple of legitimate prosecutorial concerns that are indeed weighty. First, if the government must hand over whatever biological evidence it retains, courts may eventually require the police to retain the evidence indefinitely at state expense. Second, in many cases the DNA may not be enough to conclusively clear the defendant. For example, in a rape case such as Harvey's, even if testers discover semen that fails to match his, Harvey still could have been involved, since the crime involved two rapists, and the semen

could have come from the accomplice. (The victim was unable to provide a conclusive identification and expressed some doubt about whether both rapists ejaculated.) In a case of this sort, the defendant will seek a new trial, arguing that a new jury should hear the new (doubt-raising, though inconclusive) evidence. The prosecutor will often counter, with some justness, that Humpty Dumpty cannot be reassembled. Years might have elapsed since the first trial, perhaps much of the original evidence has faded away, and the witnesses may now be dead or unavailable. A trial truly fair to the state as well as the defendant may no longer be possible.

This is a genuine concern when a defendant seeks the extraordinary remedy of a new trial. But it is hardly an argument for rejecting a new DNA test. So long as it is reasonably possible that the test might completely clear the convict, the test should be done. In Harvey's case, for example, the DNA test might not only fail to match Harvey but might also directly match other culprits in ways that would completely clear the convict. To insist that a convict must prove that the test will conclusively prove his innocence before he can do the test is to make catch-22 a rule of law. What's more, even an inconclusive DNA test can be a valuable aid to a governor or pardon board staffers, who can review old trial transcripts and police files in light of the new evidence in ways that a second trial jury cannot.

But the fundamental problem remains: Often the DNA test will be inconclusive, failing to match the convict while also failing to rule out the possibility that the DNA came from the convict's unknown accomplice. Thus, a purely negative DNA match is often not good enough; we need a positive DNA match as well, telling us not just that the DNA did not come from James Harvey, but also that it did in fact come from Engelbert Smith. Once we make the positive match, we can usually decide whether the prosecution's accomplice theory holds up. Is there any evidence linking Harvey to Smith? Does Smith himself have a record of committing similar crimes on his own or with some other accomplice? With a positive as well as a negative match, everyone wins, except the guilty: Innocent defendants can be freed, past victims vindicated, and future victims protected. Indeed, if we could regularly make a positive match, most stranger rapes could be solved and thus, one hopes, many rapists could be deterred—a truly amazing prospect.

Regularly making positive matches would require creating a far more comprehensive DNA database than currently exists. New technology makes this possible. Every child at birth now has a blood test for medical purposes. A few drops could be diverted to generate a DNA fingerprint. In addition, all

adults could be required to submit to a quick cheek swab, perhaps when they get their driver's licenses. This swab is all that would be needed to generate the genetic fingerprint. These DNA fingerprints could also help prevent a now-prevalent form of identity fraud whereby a criminal uses another person's birth certificate, which lacks unique identification markers such as fingerprints or footprints.

Such a database would be in the interest of innocent criminal defendants, yet almost no criminal defense attorney has called for its creation. Instinctively, defense attorneys recoil from broad searches and seizures, and are more comfortable fighting blood tests than demanding them. A defense attorney's job is simply to get his client off the proverbial hook: reasonable doubt at a reasonable price. Actually finding the real culprit is not in the defense attorney's standard job description. (Let the police and the prosecutors worry about that!) But this view is just as misguided as that of the prosecutor who cares only about maintaining conviction rates. Without a comprehensive database, many innocent defendants will never be able to decisively prove their innocence; with such a database in place, prosecutors will be far less hostile to new testing. Many of the convictions a prosecutor's office might lose would be offset by new convictions enabled by positive matches.

Of course there is real danger in allowing the government unlimited access to each person's entire DNA code, which contains oodles of private bits of information that could be used in sinister ways. For example, the complete code may reveal a person's genetic predispositions to various diseases—information that could compromise employability and insurability, and that the person herself might prefer not to know.

But there is a clean way of protecting private information of this sort, by using only part of the DNA code (so-called junk DNA) that identifies a person but tells us nothing truly private—the DNA equivalent of a fingerprint.*
The same comprehensive DNA statute that required mandatory blood tests and cheek swabs could also provide that only the DNA fingerprint be done, with the rest of the biological sample destroyed. The law could further provide for elaborate safeguards against the misuse of samples, including an

* [One important difference between DNA and fingerprints is that DNA can be used to determine paternity and to track other biological connections—a point I did not make clearly in 2001 but that I did squarely discuss in a follow-up op-ed, "A Search for Justice in Our Genes," which appeared on May 7, 2002, in the *New York Times*.]

explicit statutory requirement or implicit understanding that the whole program be headed by a distinguished civil libertarian.

If analyzed by the global test of Fourth Amendment reasonableness, this hardly seems an "unreasonable" search and seizure regime. Our hypothetical scheme is nondiscriminatory, relatively nonintrusive, well justified, sensitive to legitimate privacy interests, and no broader than necessary. But it is not entirely clear that current Supreme Court doctrine would allow such a comprehensive DNA statute, because it contemplates intrusions for criminal law enforcement purposes in the absence of probable cause, and, indeed, in the absence of individualized suspicion. This is a category of search that the current Court generally disfavors. And so the new technology may require the justices, too, to rethink some of their dicta and dogma. Even if law enforcement purposes alone might not justify a comprehensive database, isn't the case more compelling if such databases can also ride to the rescue of the erroneously accused and the wrongly convicted?

Whether or not comprehensive DNA databases are put in place, the law needs to provide more protection for the biological samples already in the government's possession. Current doctrine, for example, does not limit the government to fingerprinting the "junk" DNA and has failed to make clear what rules govern the testing of previously acquired biological samples.

More protection against government abuse and more security from private thuggery; more innocent prisoners freed and more violent criminals caught; more reliable evidence at our disposal and more safeguards for our medical privacy. This is the world the scientists have made possible. But will the lawyers make it happen?

WHY THE COURT WAS RIGHT TO ALLOW CHEEK SWABS

New York Times, Monday, June 3, 2013 (with Neal Katyal)

Something intriguing happened Monday: Antonin Scalia, the Supreme Court's longest-serving member and one of its most conservative justices, joined three liberal justices in a sharply worded dissent arguing for the rights of criminal suspects.

The court decided, 5 to 4, that the Constitution permits the police to swab the cheeks of those arrested of serious crimes, and then do DNA tests