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## Preface. DNA: Diviner of Guilt or Threat to Liberty?

The spring of 2003 was a desperate one in Baton Rouge, Louisiana. DNA had linked five brutal rape-murders in the Baton Rouge area to a single perpetrator. There was no obvious pattern in terms of geography or demography, and the police were bereft of useful leads, except for the observation by witnesses in several of the cases of the presence of a white GM pickup truck near the scene of the crime.

The tension broke abruptly on May 26, 2003, when DNA collected from Derrick Todd Lee, in the investigation of a seemingly unrelated case, matched the DNA collected from the five crime scenes. This match was followed by a brief manhunt, in which Lee was apprehended in Atlanta.

The Lee case is thus an unambiguous success of the use of DNA in the criminal justice system; without DNA Lee would not have been identified as a suspect. But underneath the surface it also unveils some potentially troubling details about the use of DNA in the criminal justice system. Consider the following:

*Although Louisiana's criteria for inclusion in the state's convict DNA database are among the most expansive in the country, not a single investigation had been aided by that database, because the state had not allocated adequate resources to actually collect and process samples.<sup>1</sup>*

All fifty states have passed laws creating DNA databases—one in each state for DNA profiles of individuals convicted (and sometimes, just arrested) for particular crimes, and one for profiles developed from DNA evidence left at the scenes of crimes. However, resources have been slow to follow the mandate to create these databases. Louisiana stands out in this respect because its ambitious criteria for inclusion create a large gap between theory and practice, but at that time six other states reported no investigations aided as a result of their DNA databases, and another ten states

reported that ten or fewer investigations aided. In fact, the majority of investigations in the country that have been aided by state DNA databases come from just four states: Florida, New York, Virginia, and Illinois. It is unclear how many of these “investigations aided” provided leads that law enforcement energetically followed and that resulted in convictions.

*After the publicity surrounding the case, Louisiana expanded the criteria for inclusion in its offender database to encompass all individuals convicted of felonies and all individuals arrested for felonies.*

The criteria for inclusion in convict databases have grown progressively more expansive, with thirty states now mandating inclusion of all those with felony convictions in the database and some states including juveniles and some misdemeanors (see concluding chapter). Experience from states that have aggressively expanded their databases suggests that larger databases garner substantially more matches. It is clear, however, that expansion of the groups whose DNA goes into the databases exacerbates both resource allocation and civil-liberties issues.

*Louisiana collected over 1,000 samples in its search for the serial killer—largely Caucasian men in their twenties (based on an FBI profile of the murderer), many in large part based on their possession of a white pickup truck.<sup>2</sup>*

The first use of DNA in a criminal investigation involved a “DNA dragnet”: to capture the aptly named Colin Pitchfork in 1987. DNA dragnets involve collecting DNA from a large set of people that collectively is more likely to contain the perpetrator—for example, from a town, or from owners of a GM pickup. By the very nature of DNA dragnets, there is little basis to suspect particular individuals. In the Louisiana case, the exclusion samples taken by police were in principle consensual. This consent was illusory, however. As the West Baton Rouge chief deputy stated: “Anybody that’s been approached. . . , and [the officer] explains why—most of them say, ‘Sure I’d be happy to.’” Refusal was considered potentially indicative of guilt: “A court order would be issued immediately . . . and they would be swabbed.”<sup>3</sup> Further, upon exclusion of these individuals as sources of the DNA from the crime scene, the state has refused to return or destroy the DNA and records of that DNA—a common practice among law enforcement agencies.<sup>4</sup>

*This is the first documented case in the United States in which crime scene DNA samples were analyzed to identify the race of the alleged perpetrator.<sup>5</sup>*

This use of DNA is illustrative of the broader possibilities of employing DNA analysis to build profiles regarding unknown suspects. Perhaps more serious, from a privacy perspective, is the information that DNA collected from convicts, arrestees, and suspects might reveal about them (and their relatives) beyond what is necessary for crime investigation—everything from propensity to develop certain diseases to paternity.

The Lee case thus highlights the enigmatic character of DNA in the criminal justice system—as diviner of guilt, and as potential threat to liberty. This book is devoted to considering the implications of this collision between twenty-first-century technology and twentieth-century justice, and to examining the broad normative question of how the balance between individual interests in privacy and autonomy and the societal interest in security needs to be redrawn in the face of the technical possibilities that DNA offers. It is an outgrowth of a landmark conference cosponsored by the Department of Justice's National Commission on the Future of DNA Evidence and Harvard's John F. Kennedy School of Government, "DNA and the Criminal Justice System," in November 2000. This conference brought together the leading academics and policymakers involved in this area after a tumultuous decade in which DNA emerged out of nowhere as one of the stars of the criminal justice system, but one whose role in many ways was still emerging. The three years since the conference have been incredibly dynamic ones, with postconviction DNA testing laws expanding to cover most of the country, with the national DNA database system growing more than tenfold, and with the background of September 11 swinging the interests of society dramatically toward security. These years have not produced equivalent leaps in the clarity of the role DNA should play in the criminal justice system. This observation provides the rationale, then, to proceed with a book that brings together essays from many of the speakers at the 2000 conference.

The roadmap to the book is as follows. The first part of the book lays the conceptual, historical, legal, and scientific groundwork for the volume. The introductory chapter provides a thematic overlay. The key to understanding the response to DNA technology, in the end, may have little to do with its merits, but rather with the trust in the system to use the technology properly. Properly using DNA in the

criminal justice system is thus a governance challenge that involves both adapting to and shaping the emerging technology.

Stephen Breyer (chapter 2) provides the motivation for the volume by outlining the role that the book plays in furthering the discourse on the role of technology in society. Frederick Bieber (chapter 3) then outlines the trajectory of DNA technology, examining how it has been used in the criminal justice system to the present, as well as directions the technology is likely to take in the near future. Simon Cole (chapter 4) provides a history of identification technologies in the criminal justice system, highlighting, somewhat ominously, how identifiers become imbued with greater significance than simply identification. Edward Imwinkelried (chapter 5) examines the impact DNA has had in the courtroom, arguing that DNA has rather neatly been integrated into courtroom procedures, but that the most interesting issues lie precourtroom (e.g., the development of DNA databases), and postcourtroom (i.e., postconviction). Margaret Berger (chapter 6) further develops the latter theme, discussing how the durability and probative power of DNA have undermined one of the fundamental tenets of the criminal justice system: finality.

George Annas (chapter 7) and R. Alta Charo (chapter 8) then establish the bioethical basis for precourtroom issues by examining the issues raised by the collection of DNA data. Barry Steinhardt (chapter 9), Amitai Etzioni (chapter 10), Viktor Mayer-Schönberger (chapter 11), and D. H. Kaye and Michael Smith (chapter 12) then turn to the question, what should be done when the state collects DNA data to fight crime? These four chapters offer starkly different answers to this question, with all of the chapters asserting the need for substantial control over the data, but with Steinhardt arguing that ultimately the only satisfactory control is for the databases to be as limited as possible; Kaye and Smith arguing that there should be a universal database; and Etzioni and Mayer-Schönberger arguing that the scope of the database should be determined by a balancing of individual and societal interests, with Etzioni emphasizing the latter, and Mayer-Schönberger the former.

Garland Allen (chapter 13) and Troy Duster (chapter 14) then turn to an issue that is a storm cloud just over the horizon: the use of arguments regarding the genetic bases of criminal behavior in the justice system (and society more broadly). Duster examines how the collection of DNA material on the basis of criminal behavior might be transformed into a research program on the genetic determinants of such behavior. Allen analyzes the rise of eugenics in the United States earlier this

century and critiques both the science of behavioral genetics and, in particular, its popularization and use in society.

Finally, Sheila Jasanoff (chapter 15) and David Lazer and Michelle Meyer (chapter 16) turn to the role of democratic discourse in defining the use of DNA in the criminal justice system. Jasanoff examines what she labels the “identity crisis” of DNA—the many roles that DNA can play, as identifier, diagnostic, and property—and discusses the role that the National Commission on the Future of DNA Evidence played in defining the debates around the use of DNA in the criminal justice system. Lazer and Meyer conclude the book with a discussion of the current state of these debates, examining where a consensus has emerged and where there is still substantial division and debate within society.

The purpose of this book is thus not to provide the definitive answer to how DNA should be used in the criminal justice system—indeed, there are many disagreements among the authors as to that answer. Instead, our collective hope is to define the debate and to help anticipate the challenges that will arise in the coming decade.

## Notes

1. FBI statistics available at <http://www.fbi.gov/hq/lab/codis/aidedmap.htm>.
2. Lee is African American; it is unclear whether he ever had a white pickup truck in his possession.
3. Glenn Wilson, “In Louisiana, Debate over DNA Dragnet,” *Christian Science Monitor*, February 21, 2003.
4. This is particularly notable because in many crimes DNA is routinely collected from relatives and friends of the victim. Many states have informed-consent forms that indicate that the collected DNA will be saved and compared to that from other crimes. It is unclear what the consent form in Louisiana stated.
5. “Racial Profiling: Will a New DNA Test Shatter Serial Killer Myths?” ABCnews.com, June 13, 2003.