Genetic Justice: DNA Banks, Criminal Investigations, and Civil Liberties

By Sheldon Krimsky & Tania Simoncelli
Price: $29.95, pp. 406

Reviewed by Patrick B. McGrath
Journal of High Technology Law
Suffolk University Law School

Genetic Justice: DNA Banks, Criminal Investigations, and Civil Liberties\(^1\) discusses the growing use of DNA by law enforcement and the authors analyze the ethical and legal consequences of collecting, storing, and using DNA to aid in criminal investigations. At the heart of the authors’ arguments are privacy and procedural concerns stemming from the Fourth, Fifth, and Sixth Amendments of the U.S. Constitution. Through the use of data, graphs, and illustrative examples (both factual and fictional), the authors make a convincing case that DNA is not necessarily the perfect law enforcement tool it is sometimes thought to be. Instead, DNA should be thought of as an investigative tool that is open to both abuse and mistake. The authors theorize that DNA testing should be dealt with accordingly in order maintain a proper balance between catching criminals and protecting individual liberties.

Sheldon Krimsky, one of the authors, focuses his research on how the ethical and the moral values of contemporary society are challenged by scientific and technological advances.\(^2\) The second author, Tania Simoncelli, conducted extensive work on the legal and social

---


\(^2\) Biography of Sheldon Krimsky, Tufts University, archived at http://www.webcitation.org/5x0lREsVr. Sheldon Krimsky is a professor of Urban & Environmental Policy & Planning and professor in Public Health and Family Medicine at Tufts University. Id. Prior to publishing Genetic Justice, Krimsky authored a number of other books that detail the link between biotechnology and public policy. Id.
implications of the emerging DNA technology. Krimsky and Simoncelli divide the book into three parts. First, they provide a background on what DNA is and how it is used by law enforcement. Second, they compare the use of DNA in the United States to that of other countries by demonstrating how DNA is collected and used in investigations. Third, the authors’ offer a critique on the reliance of DNA in law enforcement and how it affects society.

In Part I, the authors discuss the background on DNA and its use in law enforcement in the United States. They begin with a brief, but thorough, lesson on the history and technical aspects of DNA. They describe in depth what makes DNA and then how forensic scientists analyze DNA for identification purposes. Krimsky and Simoncelli attempt to present the information in a way that is straightforward and comprehensible, but the discussion becomes quite technical at times which causes the reader to become overwhelmed in the scientific aspects. The complexity of reading is the result of the nature of DNA rather than Krimsky and Simoncelli’s writing style. In fact, they attempt to remedy the scientific and analytical area by presenting the information under numerous subheadings, which allows the reader to re-read parts they did not quite understand on the first read through. The writing becomes much easier to follow once the authors move past the initial science lesson. Though difficult because of the density of the subject matter, having at least a basic understanding of DNA makeup and the forensic analysis process is necessary in order to comprehend the rest of the authors’ argument.

After the introduction to DNA and genetic analysis, the book becomes easier to follow as the authors explore the techniques law enforcement uses to collect DNA and as the authors analyze how agents use it in criminal investigations.

---

3 Book information for *Genetic Justice*, COLUMBIA UNIVERSITY PRESS, archived at http://www.webcitation.org/5x0lMlxx5. Before her current position at the Food and Drug Administration, Simoncelli was a science advisor for the American Civil Liberties Union. *Id.* At the ACLU she provided guidance on biotechnology, neuroscience, and public health policy. *Id.*
In addition to outlining how the United States has approached the issue, in Part II Krimsky and Simoncelli offer a comparison of DNA collection laws in the United States with those of other countries across the globe. The authors summarize how DNA plays a role in law enforcement in the United Kingdom, Japan, Australia, Germany, and Italy. Each country is in a different place in its own struggle to balance effective law enforcement with individual privacy concerns. The authors stress both the benefits and the detriments of each countries respective approach to the issue. Because each country has its own values and constitutional rights concerning individual privacy, there is no “right answer,” but by comparison the reader can see where the United States may improve its own approach to DNA databases.

For example, the authors’ highlight the safeguards Germany has built into its DNA data-banking system. Among these safeguards are laws requiring that DNA analysis be carried out only by judicial order and must be analyzed by an independent agency not connected to the investigation.4 Obviously, the authors’ choice of countries to case study against the United States was motivated by the desire to have countries which reflected, to a degree, similar views on fundamental rights. Although the range of countries available for analysis was limited by technological advancement, it would have been interesting to see how the United States and other “westernized” countries compared with those that have more egregious human rights record violations, such as the in the Middle East, Russia, or China.

Parts I and II provide a foundation for Part III, where the real bulk of the authors’ message sits. Here, the authors present a critical perspective on how the police use DNA to solve crimes and how it affects an individual’s privacy and liberty. The authors explore the practical implications of using DNA evidence. Among these concerns are privacy issues, such as

4 KRIMSKY & SIMONCELLI, supra note 1, at 210-11.
whether using voluntarily or involuntarily discarded DNA samples can be considered a search or seizure under the Fourth Amendment of the Constitution and thus afforded certain protections. They also discuss the potential racial impact of DNA analysis. Because certain racial groups have a disparate rate of arrest, their DNA is more likely to be included in DNA banks, and thus more likely to be hit as match. Krimsky and Simoncelli warn that this could “further exacerbate racial prejudice.”

Krimsky and Simoncelli are clearly critical of the way DNA is being employed by law enforcement to solve crimes. However, their argument is presented fairly. Their criticism comes only after they recognize the benefits DNA testing does offer to law enforcement. Rather than advocate for the exclusion of DNA evidence in criminal investigations, they offer a cautionary reminder that DNA is not infallible. They advocate that DNA evidence should be used to promote justice and not only to increase conviction rates. Through examples and explanations, they point out the weaknesses in DNA evidence and warn that, without precaution, the potential for abuse is quite real.

One of the more interesting aspects of the book is the role the media plays in portraying myths about DNA. Known as the “CSI effect” after the popular CBS murder mystery show, it is the idea that people believe DNA is much more reliable than it actually is. On the television show, crime scene investigators solve crimes in under an hour and they often rely on DNA evidence they find at the crime scene, send the DNA to the lab, and positively match it after a

---

5 KRIMSKY & SIMONCELLI, supra note 1, at 252.
6 KRIMSKY & SIMONCELLI, supra note 1, at 261.
7 See, e.g., KRIMSKY & SIMONCELLI, supra note 1, at 284-85. The authors point to the case of Josiah Sutton, who was convicted of rape and sentenced to prison based almost solely on DNA evidence collected from the crime scene. Id. After four and one-half years in prison he was exonerated when reanalysis of the DNA determined he could not possibly have been the rapist. Id. A lab analyst had exaggerated the significance of the match, which it turned out was coincidental. Id. As it turned out, the analysis technique used by the lab in this case carried a 1 in 15 chance of hitting a coincidental match in the African American male population. Id.
8 KRIMSKY & SIMONCELLI, supra note 1, at 275, 308.
short analysis. Genetic Justice attempts to dispel this myth by pointing out that even when DNA is recovered from the crime scene, the system is currently overloaded with DNA analysis requests. Then, even when a match is made, a positive match only points to the suspect’s presence at the scene, not his guilt, and is still subject to false positives.

DNA’s role in rape investigations is another area Krimsky and Simoncelli point to as being overhyped. The belief that DNA can play a major role in rape convictions entertains our societal fear of the “stranger rapist” who is the man that leaps from behind the bushes to attack a woman walking alone at night. However, as the authors correctly point out, DNA is not helpful in rape cases where the issue rests not on the identity of the perpetrator or whether sexual intercourse took place, but on issues of consent or force. DNA does little to help in cases of acquaintance rape.

The authors’ mission is not to trivialize the importance of DNA in criminal investigation. Rather, they attempt to inform the reader, so they can make a calculated decision amongst themselves where the line between promoting criminal justice and protecting personal liberties needs to be drawn. Krimsky and Simoncelli never do answer this question directly themselves, but they end their book with a list of axioms they believe need to be accounted for when considering the matter.

One of the greatest attributes is that while its subject matter is relatively narrow—DNA collection, its use in criminal investigations, and how it affects individual privacy and liberty interests—the potential audience is quite diverse. I think the book would be of interest to those with a serious scientific background who wish to gain an understanding of the real world

---

9 KRIMSKY & SIMONCELLI, supra note 1, at 295-96.
10 KRIMSKY & SIMONCELLI, supra note 1, at 296.
11 See KRIMSKY & SIMONCELLI, supra note 1, at 330-35.
application of emerging technological and biological developments, as well as more casual fans of “scientific drama” in order to see through the romanticism of DNA evidence created by television shows such as CSI. In the legal sector, the book is a must read for those involved in both criminal defense and prosecution. In addition to the ongoing ethical debate between solving crimes and infringing on personal liberty, the book discusses how DNA is changing the courtroom in its influence on how jurors perceive evidence and the way criminals commit crimes. For constitutional scholars, it asks how constitutional principles should be interpreted to fit into the modern world.

Past the opening chapters, which are technical and scientific in nature, the book becomes a captivating and enjoyable read for almost any reader. Krimsky and Simoncelli break up their arguments with illustrative examples of whatever they are discussing at the time. By interspersing real world stories that highlight both the success and failures of DNA into the midst of their arguments, the book reads like a collection of short stories which works well in both keeping the reader engaged and effectively driving home the authors’ main points. I recommend this book for anyone looking to see past the myths of DNA because it is both an informative and interesting read.