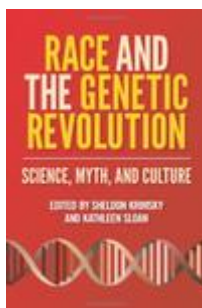


Can Science Explain the Concept of Race?

A review of



Race and the Genetic Revolution: Science, Myth, and Culture

by Sheldon Krimsky and Kathleen Sloan (Eds.)

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Reviewed by

[Lundy Braun](#)

[Amed Logrono](#)

As many have written, genomics has ushered in a new era of disease- and behavior-related research. At the same time, biomedical researchers have become increasingly focused on health disparities. Consequently, when, how, and whether race should be used in medicine has been the topic of an intense, sometime contentious, and very public debate.

Less widely appreciated, though of perhaps even greater consequence, is that during this same period, there has been a radical expansion of DNA technologies for identifying individuals purported to be involved in criminal activities. The stakes in the use of DNA technologies in forensics are, if anything, higher than in the sphere of biomedicine. *Race and the Genetic Revolution: Science, Myth, and Culture* is a collection of essays, edited by Sheldon Krimsky and Kathleen Sloan, that address the intersection of race and genomics in several distinct but overlapping and mutually reinforcing spheres. It joins a growing number

of books and edited volumes dedicated to exploring the origins and impact of the revitalization of the concept of race among scientists (see, e.g., Epstein, 2007; Roberts, 2011).

Race and the Genetic Revolution provides important insights into some of the most critical and highly charged applications of genomics. An important strength of this timely, engaging, and readable book—and what distinguishes it from some others—is the clarity with which it demonstrates how genomics findings in one discipline such as biomedicine are applied to other disciplines such as psychology, with the assumptions made about race unexamined.

This collection stems from a series of open forums sponsored by two Ford Foundation-funded projects of the Council for Responsible Genetics, a nonprofit organization based in Cambridge, Massachusetts. Teasing apart conceptual and empirical issues related to contemporary meanings of race constituted by and embedded in the new genomics, the authors analyze the realms of racialized medicine, psychology and intelligence testing, ancestry testing, and forensics. The book is organized thematically, with two contributions per topic written by a diverse group of concerned community activists, noted race scholars, and practicing scientists.

The introduction provides a crisp and focused entry into the issues. Here the inclusion of a short discussion on the problem of using self-identification for genetic studies is noteworthy because self-identification is the accepted method of defining race in medical research. Two contributions on the history of the concept of race, one written by historian Michael Yudell and the other by biologist Robert Pollack, establish key themes that run through the book.

Although their perspectives vary, the majority of authors in this collection subscribe to the view that race is a social, not a biological, construction. They agree that historical classification systems based on physical and behavioral traits have established a hierarchy of human worth. Though it is not genetically defined, most authors argue that race is socially and politically real, with real social and biological consequences.

Despite recent technological innovations, *Race and the Genetic Revolution* cautions that much is unknown about human genetic variability. A major impediment to greater understanding is the skewed nature of the databases currently used to make claims about racial difference. Based on convenience rather than random samples, the databases are methodologically and conceptually distorted; the results drawn from their data reflect the initial sampling approach. In this regard, the databases used by law enforcement are particularly problematic because they rely on an already racialized legal system in which young men of color are disproportionately targeted for arrest. This practice produces skewed databases that are not constructed from randomly collected samples.

That race is a social, not a genetic, construct is widely acknowledged, though not always well understood. To demonstrate the social nature of race, several authors point to changing classification systems over time and place and to the empirically demonstrated fact

that the genetic variation within groups is greater than that between groups. None of the contributors denies the rich genetic variation that characterizes humans; what is at issue for the authors is whether this variation can be categorized scientifically and the uses made of the scientifically constrained data.

Many are familiar with the debates over racialized medicine, ably discussed here by Jonathan Kahn and Joseph Graves. What is less widely acknowledged is the insidious re-emergence of research linking intelligence to race. That this is happening now in the field of psychology is all the more troubling, given that there is no consensus on what actually constitutes this thing we call *intelligence*.

In her thoughtful essay, “Myth and Mystification: The Science of Race and IQ,” legal scholar Pilar Ossorio offers empirical evidence to contest the notion that “persistent racial gaps in, for instance, school achievement, family income, and wealth must reflect innate differences in ability” (p. 173). Rather, she locates such misplaced claims in the persistence of commonsense beliefs about racial homogeneity that converge in simplistic ways with reductionist notions of intelligence and genetic contributions to intelligence. According to Robert Sternberg, Elena Grigorenko, Kenneth Kidd, and Steven Stemler’s essay in this volume, arguments for natural selection of human traits rest on slim evidence.

The two essays in this volume on racial disparities in criminal DNA databases point to disturbing practices in the United States and the United Kingdom. Despite the presumption of innocence, since 2009, all arrestees in the state of California, whether convicted or not, must contribute DNA samples to law enforcement officers. Given the well-established racial disparities in arrests, the resulting DNA databases are disproportionately constructed from people of color, many of them innocent of any crime. The legal barriers for innocent people to remove their DNA from the databases are formidable. As Michael Risher states, “The consequence will be a magnification of the current racial disparities . . . in our criminal justice system” (p. 47).

The national DNA database in Britain, as Helen Wallace writes, is even more developed. In England, Wales, and Northern Ireland, the police have a broad mandate to obtain DNA samples from anyone over the age of 10 arrested for offenses as varied and minor as begging or throwing snowballs.

The authors in this collection worked through these complex issues in language accessible to the general public. In clarifying the complexity of the question of race and its historical relationship with science in such tightly focused essays and in concluding with constructive approaches to conducting this discussion, *Race and the Genetic Revolution* will be of use to academics, advocates, practitioners in many fields, and students encountering the topic for the first time.

Importantly, the book clarifies some of the most common misconceptions related to science and race presented in scientific publications and the popular press. Unlike those found in many edited volumes, each contribution tends to be short and carefully focused on one topic, whether medicine, ancestry testing, intelligence, or forensics. Although there is

some redundancy, the perspectives of the contributors are so varied that any repetition is illuminating.

Readers of this volume might find a disconnect between what they read in the media about science and race and what many of the authors contend is a scientific consensus that race is not biological. Indeed, although it is certainly true that race is understood differently than it was in earlier historical periods, it is perhaps too sanguine to consider the current state of affairs among scientists as representing a scientific consensus that race is a social construct.

Like all of us, scientists have belief systems that guide their lives, shape the work they do, and influence their understanding of data. Historically, projects of classification were integral to what was considered mainstream science. In other words, racial classification was not a product of “pseudoscience.” Rather, it was the product of respectable, mainstream science, which actively produced racial classification systems that reinforced and hardened prevailing cultural beliefs—and had biological consequences, such as poor health.

Given that the search for race-specific traits in disease, behavior, and criminality goes on, we must remain alert to the meanings that get attached to such findings, even if subsequently overturned. One need only look at a recent article by Torgerson et al. (2011) in *Nature Genetics* in which the authors claim to have identified a unique polymorphism in a gene for asthma among African Americans. Close reading reveals that the particular sequence variant is, in fact, present at higher rates in “European Americans.”

Although we all draw on science to support our interpretations of the race/science question, Patricia Williams’s point in her chapter “The Elusive Variability of Race” that science cannot be relied on to adjudicate racism deserves emphasis. Such faith in science is misplaced; the best way forward is to foster dialogue. Osagie Obasogie’s race impact assessment (Chapter 12) is one useful tool in institutionalizing dialogue. Although there is no magic bullet for the problem of racism in science and society, the collective and collaborative efforts of scholars, practitioners, and activists are hopeful signs.

To conclude, no one book can address comprehensively an issue as complex as the relation between race and science. This volume is an important contribution to the literature on race and genomics in contemporary society as it percolates throughout various disciplines from biology to psychology, sociology, and the law. The range of perspectives in this collection helps us appreciate the resilience of the concept of race as an organizing principle in science and society. Yet at the end, we are left with the questions: Why now? What social, political, and scientific factors have led to the revitalization of biological concepts of race? *Race and the Genetic Revolution* points to the need for further research and public debate.

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