

In Whose Name? Eugenicians and Geneticists

BY THEODORE M. PORTER*

In the Name of Eugenics dates from an era when the *New Yorker* published articles that approached a small book in length, and about a quarter of it was introduced there in four installments. Even more than in his previous book, *The Physicists*, Daniel J. Kevles succeeded in attracting an audience of general readers while meeting the standards of scholars and university teachers.¹ The history of eugenics was already established as a topic of broad interest, a tale of outlandish scientific overreaching and unreflective political cruelty. Yet, while this dark or darkly comic aspect does have a role in the story, Kevles did not write that kind of book. Neither did he bring in explicitly the horrors of Nazi racial policy, which remain just offstage, from where they haunt the ideals and efforts of his real protagonists, the founders of human genetics. These, for the most part, are men who took an expansive view of the potential social significance of their science, but who stood against forced campaigns of purification. While Kevles sees dangers in the knowledge they developed, he mostly exonerates them of the sins of eugenics. His title suggests the possibility that something scientifically legitimate and even valuable, though perhaps flawed, lay behind what others, ignorantly or malignly, carried out in its name.

The *New Yorker* material, drawn from the beginning of the book, contains most of the comic irony and most of the personal interest.² Francis Galton, regarded by everyone as the founder of eugenics, pursued his program of quantification into various unexpected domains such as measures of female beauty and statistical tests of the efficacy of prayer. Kevles links the fervor of Galton's eugenic commitments to his disappointment in a childless marriage,

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1. Daniel J. Kevles, *The Physicists: The History of a Scientific Community in Modern America* (New York: Knopf, 1977).

2. Daniel J. Kevles, "A Secular Faith," *New Yorker* (8, 15, 22, and 29 Oct 1984).

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the consequence, perhaps, of a bout of venereal disease that he may have contracted during youthful travels in the Middle East. He demonstrates the pervasiveness of sexual politics and sexual anxieties in the early history of eugenics, which required, after all, open discussion and conscious planning of human reproduction. Karl Pearson's eugenic commitments grew out of his involvement with the Men and Women's Club, a London reading group that aimed to redefine the opportunities available to women, the economics of marriage and childrearing, and the possibilities of friendship across the sexual divide. Kevles interprets their hesitant sexual radicalism in a psychoanalytic way, and the negative eugenics of the severely puritanical Charles B. Davenport was still more vulnerable to Freudian readings. Davenport's indiscriminate pursuit of Mendelian ratios, frequently mocked even in his own time, opens into chapters on popular eugenics in America, with fitter family competitions at the Kansas State Fair for comic relief, and dubious, racialized measures of IQ as well as eugenic sterilizations to awaken our outrage.

The book develops a comparison between Britain and the United States, and in its first third, Kevles contrasts a scientifically serious, if sometimes flawed, British effort with one that bordered on the ridiculous in America, where scarcely anyone rose above the puerility of popular science. Another contrast, perhaps related, is that eugenic sterilizations remained illegal in Britain, while in America they were carried out in many states and on a considerable scale. As the narrative reaches the 1930s, an era of economic depression and rising fascism, the British hold on to the best roles. What he calls "reform eugenics" was first of all a rejection of older dogmas, with their utopian (or dystopian) ambitions to purify the race by eliminating deleterious recessive characters from the gene pool. The critique was developed sooner and more forcefully in Britain than in the United States, and Kevles presents it as a fusion of appealing moral convictions with high-quality science. Here he introduces a cast of characters including Julian Huxley, Lancelot Hogben, R. A. Fisher, Lionel Penrose, and J. B. S. Haldane who, together, turned eugenic research, problematical even in the capable hands of Galton and Pearson, into the science of human genetics.

While the book involves extensive primary research throughout, the topics are more novel and the conclusions more original in its second half. Here Kevles had little historical scholarship to rely on. Its place is filled to some extent by interviews with about fifty scientists, who provided not just information on sources of their ideas, collaborations, and laboratory work, but also personal narratives of discovery. Hence this part of the book is more like

Horace Freeland Judson's *Eighth Day of Creation*, which Kevles praised in his essay on sources as "compellingly vital."³ To my mind, Kevles's work is greatly to be preferred to Judson's in both style and content, but the books have in common their heavy reliance on first-person accounts by scientists. This makes for a very different style from that of academic history, yielding an epic tale of progress and of temptations—often resisted—of eugenic overreach.

These chapters are also full of details about the actions and relations of the protagonists, along the lines of a visit or discussion that enables one of the scientists to develop a new technique or solve a conceptual problem. This part of the story contains many technical elements, which Kevles presents not as the unfolding of a logical structure or the piecing together of a coherent experimental program but as a multiplicity of related advances. To this reader, at least, it often seems that the points of view of his favored sources are consecrated by the historical analysis. He particularly admires Penrose, who lived long enough to be interviewed, as well as Haldane, who did not. Not one of the important scientists appears as a strong advocate of eugenics in the still-customary sense of genetic intervention for the sake of the population or society rather than for the benefit and with the approval of the individuals and families affected. Only Fisher among the inner circle of superb scientists is revealed, and only once, as seriously at odds with the shared politics of this genetics elite. Kevles quotes him denouncing the opponents of eugenics as mostly communists.

This kind of writing, with its stories from the lab, its attention to personalities, and its systematic focus on discovery as the basis of progress, was and is a form congenial to scientists. We encounter it especially in writing on relatively recent science, whose heroes survive in memory and in the stories told by professors to their students. These narratives, along with textbooks written, as Thomas Kuhn pointed out, to ratify the views of the victors, function often as the first drafts for history. Though his research is exhaustive, Kevles's style of argumentation draws from scientific journalism as much as it does from history. The interest and support of scientists has enabled him to achieve a degree of public visibility that is most uncommon for academic historians of science. By the 1980s, historians working on the more distant past had become critical of narratives like this, but the success of Kevles's book with scientists and with

3. Horace Freeland Judson, *The Eighth Day of Creation: Makers of the Revolution in Biology* (New York: Simon and Schuster, 1979).

the public for science extended also to historians. That reception attests to the enduring power of scientists to shape the writing of recent history of science.

The science of human genetics, as it emerged from this creative period, was highly mathematical, but in contrast to the hereditary perspective of Pearsonian biometrics, was fastidious in its focus on single-gene traits. The statistical tools, therefore, were not about how characters combine, but about frequencies of genes within populations. The medical aspect of human genetics, present from the beginning, has gradually become dominant as the “uses of human heredity” have turned more and more to medical choices and genetic counseling for couples and individuals. For the same reason, the physiological aspect of genetics gradually gained the upper hand over statistical methods, which were now focused on calculating the probabilities of genetic defects in offspring from what was known about the parental genes. Although Kevles wrote at a time when privatized molecular genetics was beginning to create stock bubbles, and with an awareness that the human genes that matter, at least, might before long be fully inventoried, his story is scarcely at all about DNA. The biological entity of supreme interest for geneticists of the 1950s was the chromosome, not the DNA molecule, and Kevles’s account is faithful to this truth. He devotes most of a chapter to the techniques that enabled researchers at last during the late 1950s to fix the number of human chromosomes at 46 and not, as had long been supposed, 48. And chromosomal abnormalities such as Down syndrome figured prominently among the conditions examined by the new human genetics.

Although Kevles’s book continues to enjoy a certain prominence, the story of medical genetics based on chromosomes has been occluded since the early 1960s by an extraordinary focus in the press and popular discussion on the double helix, and since the 1980s on genomics.⁴ The promise of genomic research was at first presented overwhelmingly in terms that recalled traditional hopes for Mendelian genetics, that of finding genes for basic human characteristics. Davenport’s genes for nomadism and for feeble-mindedness were no longer mentioned, but gay genes, God genes, or the gene determining susceptibility to breast cancer or schizophrenia were announced from time to time in the press. By restricting their discipline to single-gene traits, most of them medical in nature, the founders of human genetics achieved a degree of

4. See Soraya de Chadarevian, *Designs for Life: Molecular Biology after World War II* (Cambridge: Cambridge University Press, 2002).

experimental and quantitative rigor, which they worshipped, at the cost of narrowing their field to the point that most human characteristics, including disease susceptibilities, were scarcely part of it. The failure of genomics to turn up new genes for recognizable human characteristics has driven the rediscovery of statistical heredity, what is now called bio-informatics. Each new turn of the science seems to demand new histories.