

1986

The Eugenics Legacy

Paul Alper

Follow this and additional works at: <https://digitalcommons.morris.umn.edu/jmas>



Part of the [History of Science, Technology, and Medicine Commons](#), and the [Physical Sciences and Mathematics Commons](#)

Recommended Citation

Alper, P. (1986). The Eugenics Legacy. *Journal of the Minnesota Academy of Science*, Vol. 52 No. 1, 19-20. Retrieved from <https://digitalcommons.morris.umn.edu/jmas/vol52/iss1/9>

This Article is brought to you for free and open access by the Journals at University of Minnesota Morris Digital Well. It has been accepted for inclusion in Journal of the Minnesota Academy of Science by an authorized editor of University of Minnesota Morris Digital Well. For more information, please contact skulann@morris.umn.edu.

THE EUGENICS LEGACY

Paul Alper

In the Name of Eugenics: Genetics and the Uses of Human Heredity, D. J. Kevles; Knopf; 1985.

Some scientific theories die more easily than others. Phlogiston chemistry is a subject known only to historians and philosophers of science; virtually no chemistry text of today mentions the Lavoisier-Priestly controversy of several centuries ago, let alone gives any credence to the phlogiston theory. Ptolemaic astronomy, with its unending epicycles to fix up incorrect results, while possible more widely referred to, remains well and truly interred as far as present-day students of astronomy are concerned. Needless to say, the flat earth theory has no adherents.

Eugenics, on the other hand, if not necessarily alive and well, is far from without its proponents. From the moment the word was coined in 1883 by Francis Galton, eugenics — meaning “good in birth” or “noble in heredity” — has had a curious fascination for all sorts of people. Obviously, eugenics attracts geneticists, but has enticed not only other biologists, but sociologists, reactionaries, radical reformers, statisticians, psychologists, and the general public as well. Eugenics is an idea whose time has come and gone several times over.

Daniel J. Kevles' book, *In the Name of Eugenics*, is a detailed history of the Anglo-American development of this coming and going from Galton to Jensen, from the gene to genetic engineering. His book, according to the book-jacket blurb, deals “seriously and objectively with the development of human genetics as a scientific and medical discipline” and is “rich in narrative, anecdote, and attention to human detail and characterized by the play of strong personalities and stories of competition and conflict among scientists who have dominated

the field.” Unlike most book-jacket blurbs, this one is quite accurate; Kevles paints the eugenics picture in a flesh-and-blood manner, raising the social, moral, and political issues, which are intimately entwined with the scientific ones.

The first portrait is that of Francis Galton, a mad measurer of all things. Galton was “drawn throughout his scientific career to largely unpopulated fields, which in his day included both statistics and studies in human heredity.” The “increasingly probable infertility of his marriage,” according to Kevles, “may well have diverted frustration over his own lack of children into an obsession with the eugenic propagation of Galton-like offspring.”

Galton believed that it was necessary to accelerate the process of improving human breeding over the haphazard way we customarily select mates: “what nature does blindly, slowly, and ruthlessly, men may do providently, quickly, and kindly.” Eugenics was Galton's “scientific substitute for church orthodoxies, a secular faith, a defensible religious obligation.”

In order to “ferret out the laws of inheritance,” Galton “approached the problem through the infant science of statistics.” His major statistical contribution is the creation of regression analysis, the term referring to the reversion (that is, regression), whereby the progeny of the unusual members of one generation revert toward the center of the population. This so-called regression effect is quite general and applies to any pair of variables that have some random disturbance.

While Galton was concerned that mediocrity would be the unending fate of humankind unless steps were taken to encourage breeding among the eugenically gifted, his successor and biographer, Karl Pearson, feared degenera-

tion of the species and focused on the need for preventing breeding by those not eugenically endowed. Pearson is well known as one of the great pioneers in statistics and founder of the biometrician school. Much of the statistics and biometrics with which his name is associated — correlation and chi-square testing — stems from his eugenic passion, which in turn results from his deep, seething dislike of the lower classes.

Kevles would thus classify Galton as a “positive” eugenicist and Pearson as a “negative” eugenicist, although each believed the professional classes, that is, *his* class, was the eugenically fit one. The role of class was pervasive in Britain whereas in the United States race dominated. Consequently, eugenics in the U.S. spawned I.Q. testing, sterilization laws, and restrictive immigration laws. The eugenics idea drew to it simple-minded prejudices and, to this day, naive and distorted versions of genetics. The eugenics appeal, I suppose, is based on two fundamental arguments, neither of which is correct:

- (1) Heredity is a relatively simple and straightforward, controllable process, easily demonstrated.
- (2) Eugenics advocates are eugenically endowed and hence have special insight and gifts denied forever to others.

The first argument is destroyed by *nature's* inherent complexity, or if you like, *nurture's* influence. Eugenicists were and are in the thick of the nature-nurture debate asserting that nature is far more important than nurture. Even if this were so, nature is sufficiently involved and variegated that, except for a relatively small number of traits, there is virtually no telling how an offspring may relate to the parents. This is especially true when dealing with the emotionally loaded topic of intelligence.

The second argument is a disguised justification for the status quo. In essence, when eugenicists look at the world to find out who is eugenically superior, they discover that they are. Moreover, if nurture doesn't count, then social programs designed to aid the unfit are "dysgenic," because this implies more of them rather than any uplifting of the unfit. That Galton had a childless marriage and R.A. Fisher (Pearson's successor and the great founder of the field of design of statistical experiments, known as analysis of variance) had very poor vision, is an ironic commentary on the eugenic fitness of the eugenicists. Certainly, most of them, Kevles shows, had fearful problems when it came to women and to sex.

The "mainliners" of the eugenics movement opposed contraception because it promoted licentiousness and would be racially devastating since only the eugenically fit would be so inclined while the working class would ignore the use of contraceptive devices resulting in yet more eugenically unfit individuals. The "radical" eugenicists sought to free women from the continuing cycle of child bearing and child raising; sexual freedom, permitting a woman to choose her mate and how often to mate was the eugenic doctrine of the radical eugenicists.

In addition to positive, negative, mainline, and radical eugenicists, Kevles refers to "reform" and "new" eugenicists. The former "rejected in varying degrees the social biases of their mainline predecessors yet remained convinced that human improvement would better proceed with — for some, would likely not proceed without — the deployment of genetic knowledge." Reform eugenicists sought to encourage the best in human variation, but what was best was "freigh-

ted with class-dependent biases" and pitifully poor knowledge of genetics. Jensen, represents a throwback to the old days when the focus of eugenics was on race and I.Q., nature over nurture.

New eugenics results from the post World War II era with the advent of recombinant DNA. Instead of a "large-scale social program over many generations, and a pervasive program of social control," the unfit could be culled because the new eugenics would permit, in principle, the conversion of all of the unfit to the highest genetic level.

Whether genetic engineering can perform such fine-tuning remains in doubt despite the undeniable speed with which in this domain, fact overtakes fiction. As Kevles puts it:

To date, the most powerful restraint on the revival of eugenics has been nature itself. Single genes account for only a small fraction of human traits, disorders, and diseases. Like intelligence, most human characters are polygenic, and therefore are not even genetically understood, let alone subject to manipulation. There is widespread agreement among geneticists that, with a few exceptions, gene therapy is distant for single-gene disorders and beyond sight for the polygenic variety.

Kevles closes his book with a brilliant summary regarding society's current and future response to choosing "between the ancient antinomies — social obligations as against individual rights, and reproductive freedom and privacy as against the requirements of public health and welfare." His closing paragraph is worth quoting in full for its forceful

recapitulation and forecast of the eugenics legacy:

The criteria of choice are currently eroded, and they are not likely to be compellingly delineated by assertions of righteous certitudes on the one hand or invocations of genetic imperatives on the other. People may perhaps be tempted to seek rules of decision in some renewed version of Francis Galton's secular faith, and urge courses of action in the name of eugenics. It bears remembering that eugenics has proved itself historically to have been often a cruel and always a problematic faith, not least because it has elevated abstractions — the "race," the "population," and more recently the "gene pool" — above the rights and needs of individuals and their families. Galton, obsessed with original sin, had expected that the ability to manipulate human heredity would ultimately emancipate human beings from their atavistic inclinations and permit their behavior to conform to their standards of moral conduct. But in fact, the more masterful the genetic sciences have become, the more they have corroded the authority of moral custom in medical and reproductive behavior. The melodies of deicide have not enabled contemporary men and women to remake their imperfect selves. Rather, they have piped them to a more difficult task: that of establishing an ethics of use for their swiftly accumulating genetic knowledge and biotechnical power.