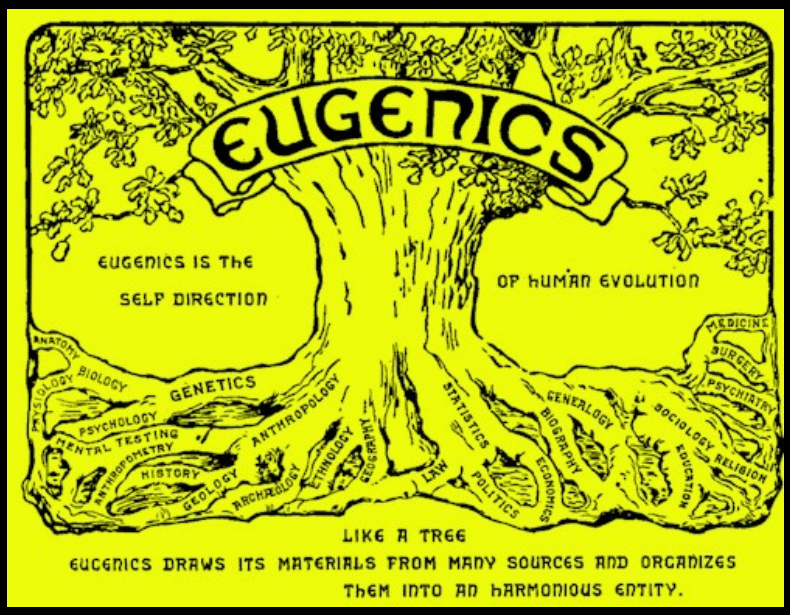
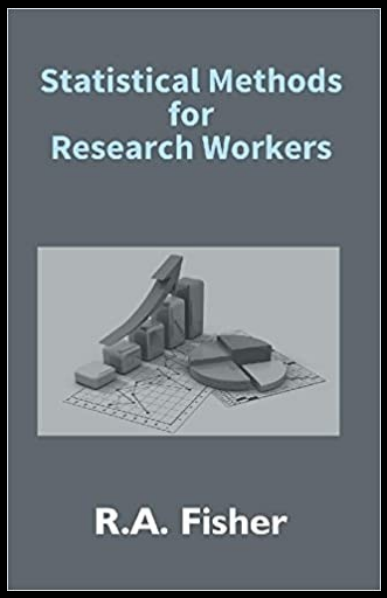
Eugenics and Modern Statistics

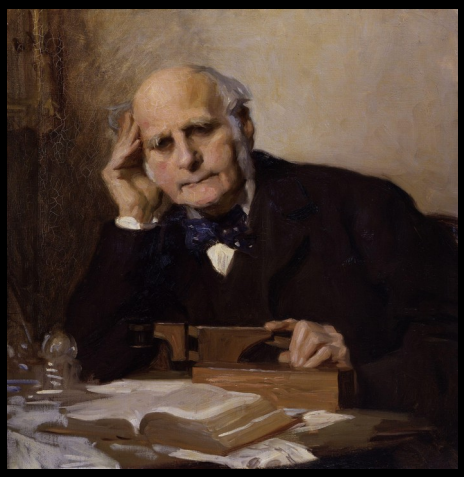




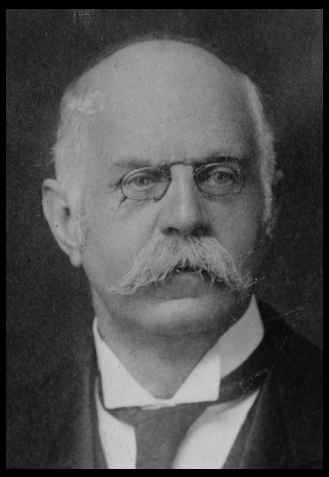
Eugenics was a movement originating in Victorian England to improve humanity through selective breeding. Eugenics played a central role in the development of modern statistics by Karl Pearson, Ronald Aylmer Fisher, and their colleagues, mostly in England.

These modern statistical methods are widely used today in most scientific and engineering fields although eugenics is widely discredited and anathema.

The Darwin-Wedgewood Clan



Francis Galton (*Hereditary Genius, 1869)*



Leonard Darwin (son of Charles Darwin)

The Darwin-Wedgewood clan, the extended family of Charles Darwin -- usually credited with the theory of evolution, played a major role in founding the eugenics movement and the development of modern statistics to establish the scientific basis of eugenics. The Darwin-Wedgewood family was a very wealthy and powerful family in Victorian England.

Francis Galton, Charles Darwin's cousin, published a book *Hereditary Genius* in 1869 attributing genius and success to heredity, to "good" genes and similar concepts. Critics of the book which relied on anecdotal accounts of Galton's wealthy family and their circle in the English elite challenged the scientific basis of Galton's claims, leading him to fund the development of modern statistics to prove his claims. In particular, Galton funded and backed Karl Pearson.

Major Leonard Darwin, Charles Darwin's son, was heavily involved in the eugenics movement, becoming a mentor and backer of Ronald Fisher amongst other statistics researchers.

Bankroll Pioneers of Modern Statistics

Karl Pearson (1912)

Ronald A. Fisher
(Cambridge, 1913)

Galton, Leonard Darwin, and others in the eugenics movement funded, backed and encouraged research in statistics by Karl Pearson, Ronald Fisher, and their colleagues.

Heyday of Eugenics (1920/30's)

Contemporary Eugenics Advertisement

https://commons.wikimedia.org/wiki/File:Eugenics_Society_Poster_(1930s).png

English: A Eugenics Society poster (1930s) from the Wellcome Library Eugenics Society Archive.

Also see this picture from the 1930s:

https://commons.wikimedia.org/wiki/File:Eugenics_Society_Exhibit_(1930s).jpg

The 1920's and 1930's were the heyday of eugenics with compulsory sterilization laws in many US states and in Norway, Sweden, and Denmark. There were many prominent adherents of eugenics across the political spectrum of the time, including several Fabian socialists such as George Bernard Shaw. Eugenics influenced the Nazi movement and its policies in Germany.

Nazis and World War II

Nuremberg Trials (1946)

Eugenics largely discredited after World War II by the Nazi atrocites, Nurember trials, etc.

Leading statisticians, other scientists, many other distanced themselves from eugenics. Name fell out of favor. Eugenics organizations closed down or rebranded themselves with other slogans and causes such as reproductive health and population control.

Eugenics largely anathema today.

Selective Outrage

Ronald A. Fisher (1913)

deeply hated

His enthusiasm for eugenics is frequently emphasized to this day, often as if he was a unique aberration.

Ronald Fisher was deeply hated by many of his colleagues and their students, most of whom were also adherents of eugenics before the war.

Bitter feud with Karl Pearson, his son Egon Pearson, and other leading statisticians.

His enthusiasm for eugenics is frequently emphasized to this day, often as if he was a unique aberration.

The Legacy

Ronald A. Fisher (1913)

statistical methods widely used everywhere

you can *usually* get the results you want/expect.

Role of eugenics in the origins of modern statistics downplayed to this day.

Fisher and colleagues statistical methods widely used everywhere from genetics to hard sciences such as physics and astronomy.

Despite their scientific form, the complex and error prone methods prove adept at confirming prejudices in numerous modern scientific-political controversies: climate change, the coronavirus crisis, drug and vaccine safety, and many other examples.

Empirically you can usually get the results you want/expect.