Genetics, Eugenics, and Scientific Racism



Eugenics Record Office at Cold Spring Harbor Labs (1910-1939)

Eugenics

- Term coined by <u>Francis Galton</u> in 1883, one of the first people to study human inheritance
- Goal is 'human improvement' through controlled breeding of humans
- Eugenicists supported the idea that people from some races and ethnicities are genetically inferior/superior to others.
- These flawed racial hierarchies were (are) used to justify subjugating and disenfranchising marginalized groups

particular people are "genetically inferior" and therefore "unfit" to reproduce



Francis Galton

Pioneer of statistics and the study of human inheritance

Eugenicist and "scientific" racist



Karl Pearson

- Founder of mathematical statistics
- Founding editor of the Annals of Eugenics
- First holder of "Galton Chair of Eugenics" at University of London



Ronald Fisher

One of the three principal founders of population genetics.

A founder of modern statistics.

Galton Professor of Eugenics at University College London and editor of the Annals of Eugenics.

ANNALS OF EUGENICS

Vol. I

FOREWORD

HE time seems fully ripe for the issue of a journal which shall devote its pages wholly to the scientific treatment of racial problems in man. Several journals allot some of their space to original memoirs dealing with eugenics and the general problems of race hygiene. Others of a minor character spend their main energies in popular articles, book-reviews and accounts of matter published elsewhere. Our journal will differ from existing journals in that bibliographical matter will be reduced to a minimum, that no other topics than the problems of race in man will be dealt with, and that the papers published will be the work of trained scientists rather than of propagandists and dilettanti. Naturally a journal issued by the Galton Laboratory will be sympathetic to the methods of its founder summed up in the title of his Herbert Spencer Lecture "Probability the Foundation of Eugenics." But this does not signify that contributions dealing with heredity in man from any scientific standpoint will not be acceptable. Nevertheless the study of man is essentially a study of mass-movements and mass-changes. Selection can hardly take place in man except by selection of somatic characters, and the results of such selection can only be effective as an evolution, according to the extent to which somatic and germinal characters are correlated. The existence of such a correlation is an undoubted fact, whatever theory we may choose for its expression. The whole development of Mendelism in recent years has been in the direction of a multiplicity of factors, even for apparently simple characters, and as the pendulum of scientific analysis swings in physics from continuity to discontinuity, so in heredity he who deals with an ever increasing number of factors must ultimately abbreviate his analysis by continuous methods of algebraic representation*. The Euler-Maclaurin Theorem

OCTOBER, 1925

PARTS I & II

Population & quantitative genetics



THE PROBLEM OF ALIEN IMMIGRATION INTO GREAT BRITAIN, ILLUSTRATED BY AN EXAMINATION OF RUSSIAN AND POLISH JEWISH CHILDREN. BY KARL PEARSON AND MARGARET MOUL. PART I. Francis

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1883: "Eugenics" is coined by Francis Galton

1910: Eugenics Research Office is founded at Cold Spring Harbor Labs (CSHL)

1919: California starts using eugenics ideas to justify the sterilization of people who had been labelled unfit and mentally defective

1924: Asian Exclusion Act and National Origins Act established by US Government to prevent immigration from Asia and set quotas on the number of immigrants from Eastern and Southern Europe (also established visas, consulates, and Border Patrol)

1925: First issue of *Annals of Eugenics* is published

1938: Kristallnacht initiates nationwide pogram by Nazis against German Jews

1939: Eugenics Research Office at CSHL closes

1941: Nazis start "Final Solution" for annihilation of Jewish people (i.e., the Holocaust)

1945: Fall of Nazi Germany and end of World War II

1954: Annals of Eugenics changes name to Annals of Human Genetics

1965: Immigration and Nationality Act replaces Immigration Act of 1924

1972: California stops its sterilization program (20,000 people had been sterilized over >50 yrs)

The good guys #NotAllGeneticists

"The inheritance of derangements of the mental faculties of man is a very difficult problem, partly because there are few, if any, parallels in other animals that can be experimentally tested, partly because the diagnosis in man is often uncertain, and partly because the <u>environment</u> is a complicating agency ..."

Morgan T. H. 1932. Scientific basis of evolution.



"The distribution of character values, say I.Q. scores, in a population arises from a mixture of a large number of genotypes. Each genotype in the population does not have a unique phenotype corresponding to it because the different individuals of that genotype have undergone somewhat different environmental sequences in their development."

Lewontin, R. C. (1970) Race and intelligence. Bulletin of the Atomic Scientists 26: 2–8





Can be 1 gene, or many genes

Racism is *deterministic* and *essentialist*



Genetics is *probabilistic* (i.e., *NOT* deterministic or essentialist)