

The Role of the Scientist in Society

— A Look at the American Eugenics Movement —

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It goes without saying that scientists live and work in society. The theories they propose and the applications of those theories influence and are influenced by their society. From the theories of Copernicus and Galileo to the atomic bombs of Oppenheimer and the Manhattan Project, science has brought and continues to bring changes to society. After World War II physicists themselves initiated discussions about their social responsibilities. Nazi eugenic policies also added to the debate about the responsibilities of scientists to society. This paper will look at eugenicists in late nineteenth and early twentieth century America and examine their relationship to society—how they were influenced by society and how they influenced society.

American Society in the late 19th early 20th Centuries

The late 19th century in America was a time of tension and change which was often accompanied by apprehension and fear. America was growing geographically and technologically. In the midst of these changes, the largely white Anglo-Saxon Protestant citizenry felt that their position in society was being threatened.

1) Prevailing Thought

a) Racial Superiority

The idea of the superiority of the Anglo-Saxon race had roots in the “scientific

racism” of the 18th and 19th centuries. American scientists based their ranking of the races on the European rankings of Johann Friedrich Blumenbach and Petrus Camper. In his 1795 book *On the Natural Variety of Mankind*, Blumenbach identified five varieties of man—Negro (African), Mongolian (Asian), Malay (Southeast Asia), American Indian (American), and Caucasian (European). To him the Caucasians were the most beautiful of all the varieties. Camper, like Blumenbach, based his ranking on the idea of beauty. By measuring facial angles, he prepared a drawing entitled “The progression of skulls and facial expressions from monkey, through black, to the average European and then thence to the Greek ideal-type.” For both Caucasians were at the top of the hierarchy.

In 19th century America, University of Pennsylvania professor of medicine Samuel Morton and Harvard biologist Louis Agassiz expanded on European theories to assign whites a superior ranking based on cranial capacity and cultural achievements. They concluded that each race had to have been created separately. This idea of polygenesis became known as the American school of anthropology.

b) Social Darwinism

After the Civil War, some thinkers applied certain elements of Charles Darwin’s theory of evolution to society—the struggle for existence, natural selection, and the survival of the fittest. Successful businessmen interpreted their success as proof of their fitness. As a corollary, less fortunate people were then less fit. Whites were seen as being on a higher level of evolutionary development than American Indians, African Americans, or Asians. Social Darwinism provided a rationale for social class and race differences and a justification for prejudice.

c) Progressivism

The Progressives sought to reform society. The progressive movement included such reforms as public health, prohibition, child labor laws, and women’s suffrage. They worked for the passage of legislation which would counteract the growing evils of society. While some elements desired to maintain their own status

quo, other elements worked to address the social problems of the time. They contributed pattern for changing society through laws that influenced eugenicists.

2) Social and Economic Conditions

a) Influx of Immigrants

White America was concerned about an influx of immigrants—people who were different and “inferior.” The 1849 Gold Rush in California brought a large number of Chinese to California and the West. Between 1880 and 1890 over five million immigrants came to America, seeking freedom and a better life. By 1896 Italians, Greeks, Turks, Slavs, Magyars, Russian and Polish Jews outnumbered immigrants from Ireland, England, Scotland, Germany, and Scandinavia. These numbers continued to rise sharply after 1899, reaching a peak of nearly a million in 1907. These immigrants looked different from those who had previously arrived. They were largely illiterate peasants who of Catholic, Jewish, and Greek Orthodox faith. In many cities in the northeast and Midwest, immigrants comprised a majority of the population. In the 1920s the populations of Boston, Chicago, New York City, and Milwaukee were seventy per cent immigrants. In Buffalo, Detroit, and Minneapolis they comprised more than sixty per cent of the total population (Murrin, 620). The WASP population had serious questions about whether these new immigrants could indeed be assimilated.

b) Industrialization and Labor Issues

Yet, it was many of these new immigrants who provided the manpower necessary for the industrialization of America. Machines and factories owned by the rich required cheap labor and lots of it. The newly arrived immigrants were often willing to work for cheaper wages than those who had already settled in America. Social Darwinism and *laissez-faire* economic policies justified exploitative methods and fierce competition in which only the fittest survive.

The employees’ answer to these policies was the organization of labor unions,

strikes, and riots, demanding fair wages and safe working conditions. Labor strife like the Chicago Haymarket riot of 1886 fueled fears of anarchy, socialism, and communism imported from Europe which would lead to the destruction of civilization.

c) Urbanization

The urbanization which accompanied industrialization created other problems as well. Slums with disease, filth, and crime grew up where low-paid workers lived. The late 19th century saw an increase in the number of asylums, prisons, and poor relief. New professions emerged to care for the dependent and delinquent—social workers, prison wardens, and psychiatrists. Some of these institutions were designed to deal with the rise in sexually active young people. Prostitution, children born out of wedlock, and venereal disease were social problems which were seen as a threat to the moral and physical health of the nation.

The Establishment of Eugenics in America

Charles Darwin's cousin, Francis Galton, first coined the term "eugenics," which he defined as "the science of improving stock which is by no means confined to questions of judicious mating, but which... takes cognizance of all influences that tend in however remote a degree to give the more suitable races or strains of blood a better chance of prevailing speedily over the less suitable than they otherwise would have had" (Galton, 24). For Americans concerned about the need for those of "suitable races" to prevail over less suitable ones, Galton's ideas concerning human betterment and social change were enthusiastically adopted.

1) American Breeders Association's Committee on Eugenics: Implementing Eugenics

The first organized eugenics effort was initiated by the American Breeders

Association (ABA, established in 1903 and from 1914 changed its name to American Genetics Association) when they formed a eugenics committee in 1906. This committee was given the task “to investigate and report on heredity in the human race” and “to emphasize the value of superior blood and the menace to society of inferior blood” (Haller, 62). The stage was set for hereditary hypotheses and ideas to be applied to humanity.

In 1909 Charles B. Davenport became the secretary of the ABA Committee on Eugenics. Since 1904 he had been director of the Carnegie Institute-sponsored Station for Experimental Evolution at Cold Spring Harbor, New York. His early experiments in cytology and breeding at the Station dealt with snails, mice, houseflies, moths, trout, canaries, chickens, and sheep. However, from 1907 his publications show that his interest had turned from insects and animals to humans, from experimental genetics to eugenics (human genetics). With his wife, he published studies on the heredity of human eye, skin, and hair color. Under Davenport’s leadership, the ABA Committee on Eugenics began to expand its activities and was upgraded to status of a section. The Eugenics Section then formed further committees to investigate such topics as mental testing, heredity of feeble-mindedness, insanity, criminality, epilepsy, immigration, and deaf-mutism.

2) Eugenics Record Office: Collection of Eugenics Data

The eugenics movement in America was given a focal point in 1910 when railroad tycoon Harriman’s widow agreed to provide funds for the proposed Eugenics Record Office (ERO) in Cold Spring Harbor. Mrs. Harriman’s interest in breeding race horses enabled Davenport to convince her of the need to study the breeding of man for the purpose of human betterment. Her contribution was a \$50,000 purchase of an 80-acre plot of land near the Carnegie Station, renovation of the house on the plot, and salaries for a superintendent and six social workers at \$20,000 a year (Brunius, 165).

Davenport was appointed director and a Missouri agricultural college professor who had studied under Davenport in a summer course, Harry H. Laughlin, became the superintendent. The purpose of the ERO was “to serve eugenical interests in the capacity of repository and clearing house.” Other purposes listed were to build up a “collection of traits of American families,” to “study offspring in terms of inheritance of specific traits,” as well as to provide eugenic advice to couples contemplating marriage (Engs, 58).

Davenport’s ideas of heredity were greatly influenced by Mendel’s laws of inheritance and Galton’s ideas of human betterment. In his biology textbook *Heredity in Relation to Eugenics* (1911) he writes: “The eugenical standpoint is that of the agriculturist who, while recognizing the value of culture [environment], believes that permanent advance is to be made only by securing the best ‘blood.’ Man is an organism—an animal; and the laws of improvement of corn and race horses hold true for him also. Unless people accept this simple truth and let it influence marriage selection, human progress will cease” (Davenport, 1). Davenport assumed that people’s traits, including intelligence, personality, and morality, were inherited and that selective breeding could produce offspring with desirable traits.

Under Davenport and Laughlin the ERO took the lead in training field workers (mostly women) to gather eugenic data and in initiating application of eugenic policies. The summer training schools from 1910 to 1924 gave instruction in Mendel’s laws of inheritance and the traits that were considered to be hereditary. Davenport’s *Trait Book* included such traits from “eye color, feeble-mindedness, and insanity, to personality traits like inadvantagesomeness, unconversationableness, mater-of-factness, occupational interests, and reading habits” (Haller, 67).

Galton had used pedigrees to identify superior men and their offspring, and family studies and studies of inmates of institutions and prisons would become the methods of choice for the ERO. The aspiring field workers learned how to make pedigree charts or “family trees” and gather information to include it them. As

pedigrees were drawn up, if a trait continued to the next and succeeding generations, it was assumed to be dominant; if it skipped a generation, it was assumed to be recessive. The living were diagnosed in a brief interview or by interviews with their neighbors; the dead largely by hearsay. There is evidence that their assumptions often influenced their conclusions. Finding poverty and immorality in her field work investigations, one field worker was convinced that these were a direct result of feeble-mindedness—a feeble-mindedness that was passed from one generation to the next. In addition to the “trained” field workers, help was enlisted from willing laymen around the country. High school teachers were sent forms to have their students fill out on their families. Laughlin was responsible for the analysis and collation of the data which were kept in fireproof cabinets at the ERO.

3) American Eugenics Society: Publicizing Eugenics

While the ERO put much effort in what can be called negative eugenics—trying to decrease the degenerate elements in society’s germ plasm, the AES focused on positive eugenics—trying to increase superior elements in society’s germ plasm. They sponsored Better Baby and Fitter Family contests at state fairs, subjecting the participants to IQ tests, Wasserman test for syphilis, and an extensive questionnaire about family and personal traits. Winners were given medals affirming their “godly heritage.”

In addition to identifying “fitter families” and “better babies,” exhibits and lectures at these events were also intent on educating the public about the burden that the unfit place on society as well as the heritability of traits that threaten the well-being of society. Publication of books and pamphlets, sponsorship of eugenics sermon contests, support in putting eugenics in the curriculum of high schools and universities, and organization of congresses and conferences were some of the other ways the AES tried to eugenics and its message before the public. They often took advantage of free newspaper publicity and magazine articles to expand their cause.

Influence on Society: Eugenic Legislation

Eugenicists were not content in getting their message out to the public. They wanted to leave a lasting mark on their society. Once the lines were drawn between the fit and the unfit, the heredity of traits made clear, and the public educated about the need to protect society, the next step was to implement policies that would decrease the impact of undesirable traits or get rid of them entirely. The committees of the eugenics section ABA, with the cooperation of the ERO staff, were instrumental in this process.

1) Sterilization Laws

One way of addressing the need to decrease degenerate elements of society was to prevent them from reproducing. Offspring of such elements would only cause further decline in the fitness of the nation and a greater economic burden on society for their care. The Eugenics Section of the ABA formed a committee in 1912 to study the sterilization of the defective—Committee to Study and Report the Best Practical Means of Cutting off the Defective Germ Plasm in the American Population.

ERO superintendent, Laughlin, served as secretary of this committee and was the primary author of the report, which received international exposure at the First International Eugenics Congress held in London. The report outlined the procedures, the challenges, and the benefits of sterilization and listed groups of socially unfit which should be eliminated—an estimated 10% of the population (Reilly, 59). In a 1914 ERO publication Laughlin drafted a model sterilization law, which was adapted by other states and countries, including Nazi Germany for its eugenic sterilization law passed in 1933.

As Paul Popenoe and Roswell Johnson wrote in their *Applied Eugenics*, “if persons whose offspring will be dysgenic are so lacking in intelligence, in foresight, or in self-control that they do not control themselves, the state must control them.

Sterilization is the answer” (Popenoe, 160-161). Indiana passed the first compulsory sterilization law in 1907, and by 1915 fifteen other states (all in the North and West) had passed similar legislation. By the 1930s more than 30 states had laws which allowed for the sterilization of institutionalized “confirmed criminals, idiots, imbeciles, and rapists” (Engs, 56). The *Buck v. Bell* Supreme Court decision of 1927 upheld the constitutionality of the law and affirmed that the good of the societal germ plasm took precedence over that of the individual. Laughlin, though he never personally had met Carrie Buck, sent a deposition identifying her as a defective. His expert testimony as well as the testimony of another ERO staffer provided “scientific” evidence. Prior to 1928 men and women were sterilized in similar rates, with men being the slight majority. After 1928, women became the more likely targets (Reilly, 98). Female sterilization was a means to regulate the sexual relationships and reproduction of the poor, disabled, and non-Anglo women, targeting particularly young promiscuous women and poor single mothers. The lofty goal of purging the United States of its burden of undesirable germ plasm in two generations was never reached, but by the 1960s some 60,000 people were sterilized.

2) Immigration Restriction

A second concern about the increase of defectives was in the growing numbers of immigrants. In 1911 Prescott Hall of the Boston Immigration Restriction League contacted Davenport, his old Harvard classmate, and the two agreed that the Eugenics Section of the ABA needed a committee on immigration. Davenport had expressed his concern about “the hordes of Jews that are now coming to us from Russia and the extreme southeast of Europe” in his biology textbook: “If increasing attention is paid to the selective elimination at our ports of entry of the actually undesirable (those with a germ plasm that has imbecile, epileptic, insane, criminalistic, alcoholic, and sexually immoral tendencies),... then we may expect to see our

population not harmed by this mixture of more mercurial people” (Davenport, 216, 224). The newly formed committee quickly took on a definite restrictive stance toward immigration.

Committee members found “scientific” evidence for their position in IQ testing done on new Army recruits in WWI. These test results generally confirmed that, with the exception of Jews, new immigrants did not score as well as immigrants who had arrived earlier (largely from northern and western Europe) or the native born. The conclusion drawn was that southern and eastern Europeans were either of inferior racial stock or they were inferior representatives of their nation. Either way something needed to be done to reduce the number of defectives entering the country.

The ABA committee wasted no time in formulating and garnering support to restrict the number of inferior immigrants with a bill introduced in 1913, proposing a literacy test. That attempt and two more attempts to pass the bill were stymied by presidential veto, but Congress overrode the third veto to put it into law in 1917. This bill not only addressed the education level of immigrants, it also established an Asiatic zone from which all immigration was excluded. (South Asians were the targeted group; Chinese had already been excluded in 1882, and Japanese from the mainland by a 1907 Gentlemen’s Agreement.) The 1917 bill, however, did not provide the expected result. There were still too many “defective” immigrants coming to settle in the United States. New measures were seen as necessary to reduce their numbers.

Albert Johnson, Republican Congressman from Washington and chairman of the House Committee on Immigration and Naturalization, enlisted ERO superintendent Laughlin as expert witness. His testimony before the committee in 1920 was based on data gathered from surveys of inmates in state institutions for the care of “defective, dependent, and delinquent classes.” His interpretation of the data pointed to the growing burden that recent immigrants were to American eleemosynary institutions. In 1921 a temporary bill (Three Percent Restriction Act)

was passed to create a quota system limiting the number of aliens of any nationality to three per cent of the number of the foreign-born persons of that country living in the United States according to the 1910 census. Laughlin's further analyses of the relative number of defectives among foreign-born inmates compared to native ones provided additional convincing evidence that tide of immigration must be stemmed. The Johnson-Reed Immigration Restriction Act (aka National Origins Act) of 1924 moved the quota base year back to 1890 when northern and western Europeans outnumbered those from the south and east. With this measure, the number of immigrants showed a marked decrease.

3) Eugenic Marriage Restriction Laws

For eugenicists the possibility of race suicide and threat from the proliferation of the unfit could not be answered by sterilization laws and laws restricting immigration alone. Laws restricting marriages were also deemed necessary.

Even before the establishment of the ERO and other eugenics organizations, some states had enacted laws prohibiting marriages of couples where one was "insane, an idiot, feeble-minded, epileptic or had not been cured of syphilis or gonorrhoea" (Engs, 53). But the ERO took an active role in encouraging states to restrict marriages of physically or racially unfit. Charles Davenport authored a pamphlet issued in 1913 as *ERO Bulletin No. 9*, entitled *State Laws Limiting Mate Selection in the Light of Eugenics*. He outlined states which had already taken measures to ensure eugenic marriages. Connecticut, Washington, Utah, Michigan, and Colorado already had legislation in place to determine whether either party was afflicted with the "red plague," the euphemism for venereal disease. Nine states had restricted marriage of epileptics; two states restricted marriage of drunkards. Davenport urged other states to follow suit in guarding the precious germ plasm of the American nation.

By the 1930s states that had restricted the marriage of "lunatics," "imbeciles,"

“idiots,” and “feeble-minded” numbered 41; states that restricted marriage of people with venereal disease numbered 26 (Pascoe, 58). By the 1950s the majority of states required a blood test before marriage.

Harry Laughlin and the ERO assisted New York ophthalmologist Lucien Howe in his efforts to get legislation enacted which would restrict the marriage of people with hereditary blindness. A bill was introduced in the New York Senate in 1921 which would require “the town clerk upon the application for a marriage license to ascertain as to any visual defects in either of such applicants, or in a blood relative of either party” (Black, 151). If their visual deficiency was diagnosed as being hereditary, the town clerk then could deny their application. Despite enlisting the support of leading doctors and other experts, the bill did not pass, nor did a second attempt in 1926—a bill that not only addressed blindness, but also proposed requiring a cash bond from any marriage applicant who was suspected of bearing any defective offspring. Although the bill was not passed, it provided an opportunity to remind legislators of the heredity of physical defects and the burden that the care for those with defects placed on the taxpayers.

Physical and mental health reasons were not the only grounds for legally limiting marriages. Race was another, and like laws related to health reasons, they were in existence before the eugenics movement. Laws prohibiting intermarriage of whites and slaves had been on the books since the colonial era. But eugenics provided a “scientific” basis to rationalize these laws. Davenport received \$10,000 for research of hybridization in Jamaica from Wickliffe Draper (Black, 289). This results of this study, published in 1929 as *Race Crossing in Jamaica*, used punch cards custom-designed by International Business Machines in collecting personal information and eugenic traits, such as age, sex, race, height, cranial capacity, foot length, and intelligence test scores. The data was interpreted to show that blacks were intellectually inferior to whites, that crosses between blacks and white could result in psychologically and physiologically disharmonious offspring, and that a

greater number of hybrids did not measure up to the level of the whites.

In the early twentieth century 41 states had laws prohibiting interracial marriages: 12 restricted marriage with American Indians, 14 restricted marriage with Asians (Chinese, Japanese, and Korean), and 9 states restricted marriage with Malays (Filipinos). These laws remained in effect until a Supreme Court decision in 1967.

Societal Factors that Enabled Eugenic Legislation

Until the implementation of eugenic legislation in Germany, the United States was the only country which had widespread eugenic policies in place. This section will explore some of the factors that made it possible to pass laws in America that were not passed in other countries.

1) Relative Silence and Lack of Open Criticism by Geneticists

Biologists researching heredity were active in eugenics organizations from their start. They gave the movement their support and participated on committees and boards. As the science of genetics emerged, it took a different direction than eugenics. The research of geneticists concentrated not on man, but on lower organisms, such as fruit flies, and exercised caution in applying the findings. Their criticism of eugenics was scarce and often done privately. Some were concerned about the overemphasis on heredity which discounted the influence of environment; others the oversimplification of genetic inheritance and the ease with which it was thought to be changed by selective breeding. L. C. Dunn, Columbia University geneticist, wrote in a letter to Carnegie president John Merriam his dismay that eugenics “was not always activated by purely disinterested scientific motives, but was influenced by social and political considerations tending to bring about too rapid application of incompletely proved theses...” (Ludmerer, 1969, 356). When Thomas Hunt Morgan sent his letter of resignation from the ABA in a private letter to

Davenport, he cited “reckless statements” and “unreliability” in articles in the *Journal of Heredity* as his reasons. He continued: “...if they (eugenicists) want to do this sort of things well and good, but I think it is just as well for some of us to set a better standard and not appear as participants in the show. I have no desire to make any fuss” (Ludmerer, 1972, 82-82).

It was the Immigration Act of 1924 and the connections with Nazi Germany that brought about an open break between genetics and eugenics. Herbert S. Jennings gave testimony to the House Committee on Immigration which refuted Laughlin’s data and the interpretation of it. He prepared an article based his testimony to be published in the magazine *Survey* (December 15, 1923), entitled “Undesirable Aliens.” He later wrote a letter critiquing Laughlin for the magazine *Science* in March of the following year. *Prometheus*, a short, popular exposition, was published in 1925 and outlined Jennings’ renunciation of the myth that heredity is the sole determiner of the human experience. Disturbed about the distortion of biology to justify immigration restriction, Raymond Pearl wrote in his 1927 article in the *American Mercury*: “it would seem to be high time that eugenics cleaned house, and threw away the old-fashioned rubbish which has accumulated in the attic” (Ludmerer, 1969, 355).

Criticism and opposition was too little, too late and did little to prevent eugenics policies from being put into place.

2) Financial Support of Philanthropists

Weak opposition was only a part of the reason that eugenics found a foothold in American legislation. Eugenicists also received strong financial support from wealthy philanthropists. Steel producer Andrew Carnegie’s funding of the Cold Spring Harbor Station for Experimental Evolution through his Carnegie Institution of Washington, textile magnate Wickliffe Draper’s funding of Davenport’s Jamaica research, and railroad heir Mary Williamson Averell Harriman’s role in funding the

ERO have already been mentioned. In addition, Mrs. Harriman also funded other projects such as the Second International Congress of Eugenics held in New York in 1921. She hosted various meetings in her New York City apartment and offered her connections as well. At times Davenport played her against John D. Rockefeller, Jr. in getting funding for his projects (Black, 94). Rockefeller was also generous in providing staff and funding. In 1917 the ERO was merged with the Experimental Station, and Mrs. Harriman proffered further funds to ensure its continued operation. At the Second International Congress of Eugenics Davenport acknowledged his benefactress' support: "It is largely due to the extraordinary vision of Mrs. E. H. Harriman, the founder of the Eugenics Record Office, that in this country, eugenics is more a subject of research than [mere] propaganda" (Black, 238). Eugenics received not only monetary support but a certain amount of prestige that went along with the names of their wealthy, powerful benefactors.

There were cases when requests for funding were turned down by these philanthropists. One example is Laughlin's request to publish his 1,300 page tome on sterilization. The Carnegie Institution had no interest in publishing it, and the Rockefeller Foundation also declined to fund it because of "direct propaganda favoring sterilization legislation" (Reilly, 63). Laughlin, undaunted by the lack of support, expanded his survey and found a sponsor in Chicago Judge Harry Olson. Laughlin's *Eugenical Sterilization in the United States* was issued in 1922.

It is ironic that Laughlin's greatest success—his role in the passage of the 1924 National Origins Act—would be the beginning of the end for the Carnegie Institution's support of him as superintendent of the Eugenics Record Office. Laughlin's 1922 presentation for the House Committee—complete with a graphic racial immigration exhibit—was published as "Analysis of America's Melting Pot" and was full of statistics and racial denigrations. The Carnegie Institution was hearing about it in more than just the reports that Laughlin regularly made. Criticism from ethnic groups and scientists caused Carnegie president Merriam via Davenport to reprimand

Laughlin as he set off on his tour in 1923 as “Special Immigration Agent to Europe” to investigate the fitness of aspiring immigrants: “I have heard a number of quite frank criticisms of Dr. Laughlin’s conclusions drawn from his recent studies.... Because the genetics and eugenics work is so important, it is necessary that we be exceedingly guarded lest conclusions go beyond the limits warranted by the facts and therefore ultimately diminish the effectiveness of our scientific work” (Black, 194). Laughlin’s report of his trip to the House Committee was again full of derogatory comments about various races, and his support of the Nazi sterilization program in the 1930s was further embarrassment for the Carnegie Institution. The conclusion of their 1935 investigation of his research was that it was unsatisfactory for the study of human genetics, and he was forced to retire from the ERO in 1937.

3) Support of Politicians

In addition to philanthropic patronage, politicians also gave their support to eugenics. House Committee chairman Albert Johnson and Secretary of Labor James J. Davis provided Laughlin the position and prestige as scientific expert. Their political agendas were a close match for Laughlin’s.

Other politicians like Senator Henry Cabot Lodge warned fellow Congressmen that the “immigration of people of those races which contributed to the settlement and development of the United States is declining in comparison with that of races far removed in thought and speech and blood from the men who have made this country what it is” (Haller, 56).

In a 1913 letter to Davenport, Theodore Roosevelt “Someday we will realize that the prime duty, the inescapable duty, of the *good* citizen of the right type is to leave his or her blood behind him in the world; and that we have no business to permit the perpetuation of citizens of the wrong type” (Pickens, 121).

Without the sympathy and backing of those who were entrusted with making the country’s laws, eugenicists could not have seen their ideas realized. That

success is indicative of the fact that the vast majority of those with legislative power were people whose background and interests were similar to those of the eugenicists.

Eugenicists as Scientists

Eugenics has sometimes been called a pseudo-science. At times it resembled an ideological political movement or a religious crusade more than science. Its methods, conclusions, and applications came under criticism from other scientists. The legislative legacy of eugenics has unraveled. Sterilization laws, immigration laws, and marriage restriction laws have all been, for the most part, stricken from the law books. But the impact those laws left on people is not easily erased.

In summary, I offer some thoughts on how eugenicists functioned in their society as scientists. The experience of eugenicists holds truths that we should not easily forget.

1) Eugenicists' science was influenced by their own class and racial prejudices.

Eugenicists began from the tenet that some races and social classes are superior to others. It was a tenet inherited from Galton and from the American school of anthropology, but it was one that was accepted as a given, without question. Frederick Douglas' comments about reasoning from prejudice rather than facts made in the late nineteenth century apply to eugenics: "It is the province of prejudice to blind; and scientific writers, not less than other, write to please, as well as to instruct, and even unconsciously to themselves, (sometimes) sacrifice what is true to what is popular" (Facing History, 84).

2) The science of eugenics became omni-science.

Eugenicists demonstrated a faith in science's ability to provide a cure for *all* social ills—labor violence as well as feeble-mindedness, crime and poverty as well

as unwed mothers. There were no limits to what science could accomplish. Nothing was outside the realm of scientific solution.

3) Their science was reductionist and simplistic.

Heredity and selective breeding were seen as *the* answer to improving the human race. A comment from the 1917 *Eugenical News* by W. E. D. Stokes, horse breeder and eugenicist, is perhaps extreme, but is the logical outcome of this conviction: “There is no trouble to breed any kind of men you like, 4 foot men or 7 foot men—or, for instance, all to weigh 60 or 400 pounds, just as we breed horses” (Ludmerer, 1969, 353). What was good for peas or horses was good for humans. But, in fact, Mendel’s laws of inheritance derived from the traits of peas were not well-suited for application to human heredity. There was also no room allowed for the role of the environment in their calculations.

4) Their science often relied on the work of amateurs.

From the pedigree studies done by field workers to popular books written by leaders of the movement like Madison Grant, the conclusions were not based on objective, repeatable research. Davenport’s candid comments in private letters indicate that he was aware of this failing: “It is very surprising to see how conclusions of great social import are issued and accepted on wholly unscientific bases.” He found it necessary “to decline to associate myself with any sort of propaganda, even propaganda on eugenics” (Ludmerer, 1969, 350-351).

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