

ABSTRACT

HANEY, SARAH RACHAEL. Model Heredity: From Scientism to the Laws that Built American Eugenics. (Under the direction of Dr. William Kimler).

The Eugenics Record Office (ERO) was at the center for American eugenics research in the early twentieth century. Two central figures played a crucial role in the development and implementation of eugenics policies in the United States – Charles B. Davenport and Harry H. Laughlin. Under the direction of Charles B. Davenport, investigations at the ERO were framed as a quantitative scientific method to research human heredity. Davenport promoted the claim that the studies showed the high likelihood of passing on traits which undermined the continued “good health” of the nation. Taking Davenport’s and the ERO’s studies as hard scientific proof of the heritability of undesirable traits such as feeble-mindedness and criminality, Harry H. Laughlin successfully campaigned for domestic policies to be implemented in the United States to improve the American breeding stock and preserve a vision of American racial identity. Aimed at hereditary traits perceived in the poor, immigrants, and individuals of non-white races, these policies proposed a role for the state to consider hereditary factors in the control of marriage, immigration, and reproduction. This thesis explores and analyzes the quantitative research of the Eugenics Record Office under the direction of Charles Davenport, and its influence on the development and implementation of domestic policies in the United States from 1904 to 1942. That influence will be traced through the popular efforts of Harry Laughlin who campaigned for compulsory state laws, most notably his Model Eugenical Sterilization Law.

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Model Heredity: From Scientism to the Laws that Built American Eugenics

by
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DEDICATION

I want to dedicate this to my mother Dawn, my father Mark, and my sisters Jessica, Casey, and Sam, along with my niece Joanna, nephews Jeremiah and Donnie, and brothers-in-law Jeffrey and Donald. I know I have driven you crazy over the last two years as I worked on this. You listened to me as I complained, you gave me a space to vent my frustrations when the stress was too much, and most importantly, you gave me the encouragement I needed to keep working when I was ready to give up. The same can be said for my close friends who have provided much needed distractions when I desperately needed it. I wouldn't be at this point without your continued support, and I cannot thank you enough. The best I can do aside from saying it aloud is this permanent reminder.

BIOGRAPHY

Sarah R. Haney is a History Masters Student at North Carolina State University in the Class of 2024. A Western North Carolina native, Sarah went to university at Virginia Polytechnic Institute and State University for undergraduate studies where she graduated with a major in History and Biological Sciences minor in December of 2020. She currently lives in the Sanford area with her family and many pets. Initially studying to join the medical field as a surgeon, Sarah found a love of medical and science history which resulted in a change of major. She became interested in the study of psychiatric and medical practices after conducting research on lobotomy procedures for her undergraduate research project. On the side, Sarah enjoys reading, writing, drawing, and travelling. Her main historical interests are European medical, scientific, military, and political histories.

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Introduction

“It is really extraordinary that our people refuse to apply to human beings such elementary knowledge as every successful farmer is obliged to apply to his own stock breeding.”¹

Theodore Roosevelt to Charles Davenport, 1913

Eugenics, the study of how to arrange human reproduction to breed for heritable traits deemed desirable by society, has for several decades been a debunked field and looked upon with disdain. The scientific community, and particularly the genetics field, turned from eugenics partially in response to immigration restrictions and the U.S. Supreme Court decision in *Buck v. Bell* (1927) but also in response to eugenics being oversimplified and bad scientific theory.² It is a subject that is uncomfortable to discuss: a reminder of the darker side of scientific history and the cost associated with it. However, a little more than a century ago the field of eugenics was an accepted part of the scientific community and considered common sense. Eugenics was pervasive enough within the general public that President Theodore Roosevelt even wrote in 1913 about how selective breeding of the human race was common sense, especially when farmers had been doing it for centuries to improve livestock.³ It grew to be prominent enough as a scientific field in the United States to be influential enough to affect domestic policies until the 1950s. Historians have identified two figures central to the development of American eugenics – Charles B. Davenport and Harry H. Laughlin.

¹ Theodore Roosevelt, “Letter from Theodore Roosevelt to Charles B. Davenport,” 1913. Mss.B.D27 - Charles B. Davenport Papers. American Philosophical Society. <https://diglib.amphilsoc.org/islandora/object/graphics%3A1487>.

² Garland E. Allen, “Eugenics and Modern Biology: Critiques of Eugenics, 1910–1945,” *Annals of Human Genetics* 75, no. 3 (2011): 314-315. <https://doi.org/10.1111/j.1469-1809.2011.00649.x>.

³ Theodore Roosevelt, “Letter from Theodore Roosevelt to Charles B. Davenport,” 1913.

Charles Davenport's scientific research into eugenics during the first three decades of the twentieth century inspired Harry Laughlin to support the call for better human breeding practices in the 1910s and 1920s. Taking research conducted by Davenport at the Eugenics Record Office in Cold Spring Harbor, New York, Laughlin began a successful lobbying campaign to introduce eugenics legislation to U.S. states aimed at addressing hereditary issues of the mentally ill, criminality, and the dilution of the American breeding stock. He also hoped to encourage the implementation of immigration policies based on Davenport's studies. Both Davenport and Laughlin became leaders in the American eugenics' movement due to three important reasons, as discussed by Mark Largent in his history of coerced sterilization. The first is the importance of funding in the early development of the genetics profession. Davenport "saw in eugenics a way for American biologists to secure funding for basic scientific research in evolution and heredity." The second influence is that the work that Davenport and other biologists conducted on heredity played a crucial role in the push for compulsory sterilization legislation, providing results that appeared to be more scientific than previous medical anecdote and common sense.⁴ Past scholarship on the connection between the two men's work focused either on the science of eugenics or on the social and gendered aspect of the practice. This thesis will focus on the second point that Largent made by tracing how the enthusiasm for quantitative scientific methods for eugenics played a crucial role in pushing for compulsory legislation.

Past scholarship on eugenics falls under a number of themes but one of the obvious themes is in relation to the scientific aspect of eugenics. One of the most prominent books on the history of eugenics is Daniel J. Kevles' *In the Name of Eugenics: Genetics and the Uses of Human Heredity* which was published in 1985. *In the Name of Eugenics* is the first book written by a

⁴ Mark Largent, *Breeding Contempt: The History of Coerced Sterilization in the United States*, (New Brunswick: Rutgers University Press, 2007): 62-63.

historian that details the history of British and American eugenics as a unified account. This book provides a general overview of the study and practice of eugenics from its beginnings to recent manifestations of the science in the genetic engineering field. As a great foundation for establishing the history of eugenics and the individuals involved, Kevles set a high standard. However, with books focused solely on the “technical developments” of biology, there is little room for discussions on the social contexts surrounding such developments.⁵ This form of eugenics history is a longer, complicated selection of studies as, for a long while, eugenics was seen as being applicable to science, but not actually part of science. Under this historiography focus, there are also several histories which connect past eugenics to current eugenics movements to display the crossover between past ideological thoughts and the modern form.⁶

Another subset of historical eugenics research brings in social context surrounding some of the mid-to-late eugenics studies which span from the 1950s to 1980s. Over the last twenty years, there has been more emphasis placed on the racial and sexual side of the eugenics movement, particularly regarding the complete mapping of the human genome. *American Eugenics: Race, Queer Anatomy, and the Science of Nationalism* written by Nancy Ordovery is a good example of this shift in historical research. It focuses on the legacy of the early eugenics movements and how it applied to both immigration policies and sexuality in the later twentieth century. *American Eugenics* attempts to answer how eugenics affected American politics and culture before and after

⁵ Diane B. Paul, “Reflections on the Historiography of American Eugenics: Trends, Fractures, Tensions,” *Journal of the History of Biology* 49, no. 4 (2016): 642.

⁶ There are several books focused exclusively on the scientific development of eugenics. Most are focused on either Francis Galton’s work developing the field or on the German Eugenics Movement which led to the Holocaust but there are a number which connect to the history of genetics and evolution. Additional suggested readings aside from Kevles’ *In the Name of Eugenics* are: Peter J. Bowler, *The Mendelian Revolution* (New York: Bloomsbury, 1989); Paul Lombardo’s *A Century of Eugenics in America: From the Indiana Experiment to the Human Genome Era (Bioethics and the Humanities)* (IN: Indiana University Press, 2011); and Adam Rutherford’s *Control: The Dark History and Troubling Present of Eugenics* (New York: W.W. Norton & Company, 2022).

being discredited in the 1940s because of the Holocaust. Eugenists' search for a "gay gene" in the late twentieth century has driven much of the recent research on eugenics and sexuality as more detailed information on the human genome gets published and circulated among scientific and public circles.⁷

Racial histories of eugenics have become a cornerstone of mixing the social context of eugenics with science and policies. Following the Second World War, there was a shift in eugenics application when it came to issues of sterilization, especially in the application of eugenics on African American women. These forms of eugenic histories are heavily involved and structured to be social histories to capture as much context for eugenics application on the public as possible. In 2005, Alexandra Minna Stern wrote *Eugenic Nation: Faults and Frontiers of Better Breeding in Modern America* to explore the effects of the first eugenics movement in the United States on the modern-day equivalent sciences after the Second World War. *Eugenic Nation* attempts to address much of the gaps of eugenic history regarding racial and ableist views, the social connections to Freudianism, and the lack of historical research into eugenics in the American west. Although it addresses the areas of eugenics history that have been left out, *Eugenic Nation* struggles to fit everything under the broader definition of "better breeding" but manages to touch on most areas of eugenics history that is often overlooked or is simply silent in the archival records. Social histories on eugenics rely heavily on case studies which in some respects limits the scope of what can be discussed though they make excellent points for detailed investigations.⁸

⁷ Further reading suggestions: Dagmar Herzog's *Unlearning Eugenics: Sexuality, Reproduction, and Disability in Post-Nazi Europe* (WI: The University of Wisconsin Press, 2018); Wendy Kline's *Building a Better Race: Gender, Sexuality, and Eugenics from the Turn of the Century to the Baby Boom* (Berkeley: University of California Press, 2005); and Edward J. Larson's *Sex, Race, and Science: Eugenics in the Deep South* (Baltimore: Johns Hopkins University Press, 1995).

⁸ In addition to *Eugenic Nation*, several other books look at the racial and gendered aspects of eugenics in the second half of the twentieth century including Dorothy Roberts' *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty* (New York: Vintage Books, 1997). Other readings: Edwin

Political histories of eugenics often fall into the study of important court cases and their resulting decisions. Adam Cohen's *Imbeciles: The Supreme Court, American Eugenics, and the Sterilization of Carrie Buck* is an example of one such history. *Imbeciles* is a political history of the *Buck v. Bell* Supreme Court case regarding the sterilization of Carrie Buck, a woman identified by the state of Virginia as feeble-minded and therefore, the perfect candidate for sterilization. This book highlights the collaboration of eugenic science and politics in this case to further the eugenic movement. However, the case-study approach creates a narrow study that does not entirely apply to early eugenics history. There is also little scientific analysis of eugenics in Cohen's argument. Instead, Cohen focuses on the individual and political motivations around the case. Similarly, Victoria Nourse wrote *In Reckless Hands: Skinner v. Oklahoma and the Near-Triumph of American Eugenics* to highlight a court case which prevented the sterilization of male and female prisoners in Oklahoma in 1942. She also discusses the last major eugenics court cases, which took place before the 1960s. By relying on the political and individual motivations for eugenics court cases, both Cohen and Nourse fail to fully explore the science related to why sterilization was recommended for criminality.⁹

This thesis explores and analyzes the quantitative research and influence of the Eugenics Record Office under Charles Davenport on the development and implementation of domestic

Black's *War Against the Weak: Eugenics and America's Campaign to Create A Master Race* (Washington D.C.: Dialog Press, 2003); Johnathan Spiro's *The Master Race: Conservation, Eugenics, and the Legacy of Madison Grant* (NH: University Press of New England, 2009); and Stefan Kühl's *For the Betterment of the Race: The Rise and Fall of the International Movement for Eugenics and Racial Hygiene* (New York: Palgrave Macmillan, 2013).

⁹ There are other histories which cover eugenics ideology in a variety of political applications. Further reading suggestions: Daniel Okrent's *The Guarded Gate: Bigotry, Eugenics and the Law That Kept Two Generations of Jews, Italians, and Other European Immigrants Out of America* (New York: Scribner, 2019); Thomas C. Leonard's *Illiberal Reformers: Race, Eugenics, and American Economics in the Progressive Era* (NJ: Princeton University Press, 2017); and Molly Ladd-Taylor's *Fixing the Poor: Eugenic Sterilization and Child Welfare in the Twentieth Century* (Baltimore: Johns Hopkins University Press, 2017).

policies in the United States from the start of the twentieth century to 1942. There is an important transition in 1920 of eugenics as a science to it being considered a pseudoscience by the scientific community which also coincides with the implementation of eugenics laws. Eugenics was in the process of being discredited by newer scientific discoveries in genetics and neurosciences by 1920, but the spread of that bad science to the public reached a high around the same period. This resulted in a lag for eugenics laws with many of them being passed in the years after the scientific community had labelled eugenics as pseudoscience. Due to this lag, 1920 will act as a hinge point for this thesis in the continued analysis of eugenical influence in the public sphere. That influence will be traced through the popular efforts of Harry Laughlin in the public sphere through his work with Congress. These policies include immigration acts and sterilization practices on state wards in both prisons and psychiatric institutions.

CHAPTER 1: Where Davenports Eugenics Began

To properly understand where the American eugenics movement began, it is important to discuss who is credited with founding eugenics and why it is relevant to Davenport and the research he conducted at the Eugenics Record Office. Francis Galton, the father of eugenics, was a mentor to Charles Davenport, introducing him to the concept and ideas of eugenics around the turn of the twentieth century. By the time Davenport had met him, Galton had forged the foundation of eugenics using statistics as a means of developing scientific legitimacy for over thirty years. Due to the extensive research into eugenics before Davenport's introduction to it, spotlighting the foundations laid by Galton is imperative to understanding where Davenport's own research began.

Emergence and Foundation of Eugenics

Even before a theory of evolution provided ideas for control of the health or well-being of descendants, it is important to recognize the commonly held idea of inheritance of unhealthy traits in a family. By the early 1800s, doctors and other medical professionals had begun the process of collecting information on heredity. Medical hereditarianism, though not titled as such at the time, tracked family lineages which contained a large number of members who were ill.¹⁰ Despite the tracking of family lineages, those doctors relied on anecdotal evidence over statistical. Patients with family members suffering from similar maladies would report as such but this left alternative explanations of apparent continuity between generations unexplored such as living conditions or the likelihood of a different illness with similar manifestations.¹¹ It was an

¹⁰ John C. Waller, "The Illusion of an Explanation': The Concept of Hereditary Disease, 1770-1870," *Journal of the History of Medicine and Allied Sciences* 57, no. 4 (2002):415.

¹¹ Waller, "The Illusion of an Explanation," 416.

accepted part of heredity during this early period that inherited diseases were just part of the body's build and could not be cured.¹² Francis Galton, however, changed the way that hereditary traits were tracked in the nineteenth century. As a mathematician, one that specialized in statistics, Galton played an important role in establishing quantitative methods for scientific research in a period where there was a yearning for scientific legitimacy.

By the mid-nineteenth century, there was a rapid expansion of animal and plant breeding research which had become more empirical in nature.¹³ That breeding research focused on the variations within species (breeds) but also experimented in the ability to pass on those traits from parent to child. The interest in animal and plant breeding led to a number of theories, including that of evolution as posited by Charles Darwin in 1859. With the acceptance of evolution, the focus on heredity and variation came with a positivist and optimistic ideal of being able to control human social ills through science.¹⁴ Galton became focused on the idea of heredity and hereditary traits and how they could be applied to the human population, moving to a practical application of the new Darwinian theory.¹⁵

Beginning to explore variations in the human populations around the world, Galton first looked at what the implications of variations in humans could mean for human evolution. Establishing research programs to study variations, Galton drew on his mathematical studies to develop a statistical research methodology. These early studies focused on mental characteristics, height, facial 'images' (i.e. composite photography), and fingerprints.¹⁶ During his research,

¹² Waller, "The Illusion of an Explanation," 436.

¹³ Philip J. Pauly, *Controlling life: Jacques Loeb and the Engineering Ideal in Biology*, (New York: Oxford University Press, 1987): 4.

¹⁴ Diane B. Paul, *Controlling Human Heredity: 1865 to the Present*, (New York: Humanity Books, 1995): 5.

¹⁵ Paul, *Controlling Human Heredity*, 6.

¹⁶ Francis Galton, "Hereditary Stature," *Nature* 33, no. 848 (1886): 295-298.

Galton's studies helped to develop several modern sciences like pathology and criminology. Nicholas Wright Gillham briefly discusses this in *A Life of Sir Francis Galton: From African Exploration to the Birth*

Galton had to create new measurements for traits that were not easily quantified, particularly regarding mental characteristics, and how things such as large-scale data collection on the population could be achieved.¹⁷ These new methods of measurements influenced the discovery of new statistical techniques for understanding and describing data. Galton's research into heredity and behavioral genetics became a cornerstone for the development of eugenics.¹⁸ These characteristics would also later influence the way Charles Davenport approached his own research and would, through Laughlin's efforts, influence legislation in several US states.

In his early works, Galton proposed counting the number of relatives in various degrees of 'eminent' men.¹⁹ By his definition, an 'eminent' man was a famous or notable person that could be considered a genius in some measure.²⁰ To do this, Galton uses a marks calculation similar to what was used by universities in order to separate and rank individuals based on their graded marks.²¹ Using colleges and universities as a representative sample of men and their natural gifts, Galton scaled the average number of men that would be in each ranking by one million in order to find the proportionate number of people with the same average intelligence in

of Eugenics (Oxford: Oxford University Press, 2001). Composite photography (the overlaying of one photo over another) was used by Galton to identify traits with little hereditary variation in a lineage, and to visualize average human types to determine if specific facial features could be linked with specific types of crime. In modern criminology, the term composite photography now means the graphical representation of an individual based on one or more person's eyewitness memories. Galton also defined the three main pattern types for fingerprints (loops, whorls, and arches) and confirmed William Herschel's observations that each person has distinctive fingerprint ridges.

¹⁷ W. F. Bynum, "The Historical Galton," in *Sir Francis Galton, FRS: The Legacy of His Ideas*, ed. Milo Keynes (London: Macmillan, 1993): 35.

¹⁸ Mike Hawkins, *Social Darwinism in European and American Thought, 1860-1945*, (Cambridge: Cambridge University Press, 1997): 6-7. <https://doi-org.prox.lib.ncsu.edu/10.1017/CBO9780511558481>.

¹⁹ Degrees, in this instance, refers to the separation between one individual from another in their family (i.e. a second cousin) but it also applies how an individual compares to the rest of the population. Galton wrote, "The arguments by which I endeavor to prove that genius is hereditary, consist in showing how large is the number of instances in which men who are more or less illustrious have eminent kinsfolk." (Francis Galton, *Hereditary Genius*: 6.)

²⁰ Francis Galton, *Hereditary Genius: an inquiry into its laws and consequences* (London: Macmillan and Co, 1869): 10.

²¹ Galton, *Hereditary Genius*, 20.

the population by age.²² By determining the degrees of separation, as well as the total number of notable individuals in a person's family tree, Galton believed he could determine if eminence was a hereditary trait. If those qualities were hereditary, Galton believed that a person would have a higher number of 'eminent' men as relatives compared to the general population. This indicates that early eugenics was focused on the 'positive' or 'desirable' traits in the human population, particularly in the male population.²³

To determine whether his hereditary eminence hypothesis was correct, Galton needed to collect a wide range of data from biographical sources. To do this, Galton adapted a method created by a Belgian mathematician Adolphe Quetelet called historiometry.²⁴ Quetelet had established that statistics could be applied in a manner which studied frequencies in a population and that an average of specific traits could be calculated.²⁵ This lended Galton a measure of legitimacy as mathematics was a respected field and statistics could provide analysis of harder to quantify traits. Taking the subjective traits of mental characteristics, Galton transformed them into "data" to create quantitative statistics. Galton took the base method of historiometry and, instead of focusing on age and achievements as Quetelet did, began to apply them to mental characteristics and family trees to determine 'genius' likelihood within a family.²⁶ Using this method, Galton gathered numerous sets of biographical data on several prominent families, as well as for several lower-class families within Britain. Most prominent families had accessible, well documented family biographical information, making it easier to find the data he wished to analyze. The data he gathered about lower-class families could be found in a similar fashion, but

²² Galton, *Hereditary Genius*, 32-34.

²³ Galton, *Hereditary Genius*, 61-62.

²⁴ Francis Galton, "Typical Laws of Heredity," *Nature* 15, no. 388 (1877), 493.

²⁵ Theodore M. Porter, *The Rise of Statistical Thinking, 1820-1900* (Princeton: Princeton University Press, 1986): 53-55.

²⁶ Galton, *Hereditary Genius*, 38.

as most lower-class families had little reason to write and keep records of family members, biographical information was harder to come by. Most often, Galton used information that was gathered by medical professionals at the psychiatric hospitals in England who had been studying a potential connection between mental illnesses and family lines for a few decades.²⁷ For several years, psychiatric hospitals had been collecting their own statistical data on their patients.²⁸ Doctors and asylums took to documenting family lineage when observing a number of individuals who appeared to have a number of family members with the same ailment.²⁹ These early collections were often based on physical observation and anecdotal information to diagnose an individual rather than a quantitative study. However, the collection of raw data on individuals deemed with some mental malady helped to lay the foundation for predispositions of traits or illnesses.³⁰ Despite lacking quantitative collection studies in the early years, it meant that many psychiatric doctors and hospitals had information on at least a few generations of lower-class families which otherwise would not have been recorded.³¹ The biographical information from medical hospitals is what Galton used to study potential eminence relations in lower class families even though the data was collected with the intent of studying mental illnesses.

Galton's 'genius' research was published in his *Hereditary Genius* (1869) which contained his early ideas on eugenics based on the analysis of families and 'eminence' degree separations. Galton interpreted the data he collected to argue that the further the degree of separation between an individual and an 'eminent' man, the sharper the decline in likelihood of

²⁷ Joel Michell, "The art of imposing measurement upon the mind": Sir Francis Galton and the genesis of the psychometric paradigm," *Theory and Psychology* 32, no. 3 (2022): 375-400.

²⁸ Niall McCrae and Peter Nolan, *The Story of Nursing in British Mental Hospitals: Echoes from the Corridors* (London: Routledge, 2016), 12-14.

²⁹ Waller, "The Illusion of an Explanation," 425.

³⁰ Waller, "The Illusion of an Explanation," 421.

³¹ Roy Porter, *Mind-forg'd manacles: a history of madness in England from the Restoration to the Regency*, (Cambridge: Harvard University Press, 1987): 34.

that individual also having and passing on ‘genius’ traits.³² According to Galton, the likelihood of hereditary genius traits dropped significantly between the first and second degrees of separation and dropped even further between the second and third degrees.³³ Galton took this sharp decline in percentage as evidence of the inheritance of abilities. It is also in this work that Galton noted the limited capabilities of the studies he conducted. Because of the potential for environmental factors, as well as individual physiology, playing a factor in the presentation of traits, Galton felt that twins would be a better study for comparisons.³⁴ The accepted contemporary biology claimed the environment had an effect on heredity, though Galton felt it was a weak effect and made him a hard hereditarian. By using twins, Galton posited that he could study comparisons of genius heredity in twins that were “similar” at birth being raised in dissimilar environments versus twins that were “dissimilar” at birth being raised in similar environments.³⁵ This, Galton believed, would determine the level of impact of the environment on individuals compared to heritability.³⁶ It is also in this work that Galton suggested the use of questionnaires to gather different data sets.³⁷

Galton was aware of and understood the influence of cultural circumstances on citizens and their abilities. At the end of *Hereditary Genius*, Galton wrote an entire chapter on the

³² Galton, *Hereditary Genius*, 60.

³³ Galton, *Hereditary Genius*, 60.

³⁴ Gillham, *A Life of Sir Francis Galton*, 194.

³⁵ Galton, *Memories*, 295.

³⁶ David Burbridge wrote an excellent article on Galton’s twin studies and how Galton’s conclusions often went further than what his evidence provided, in “Francis Galton on twins, heredity and social class,” *British Journal for the History of Science*, 34, No. 3 (Sep. 2001): 323-340. Galton’s study on twins was republished multiple times but was first publishing in 1875 in *Fraser’s Magazine*, a popular magazine, indicating that there was an effort to reach a wider audience about the idea of heredity rather than just other scientists. A revised version was published later that same year in *Journal of the Anthropological Institute*. It had later republications in a few sources and had a profound impact on modern studies as twin studies continue to be common. Charles Davenport fell back on the influence of environment on heredity in his early studies on human heredity traits between siblings and even referred to the study on a few occasions such as in the “Cold Spring Harbor: Meeting of Field Workers, June 23, 1915,” http://www.eugenicsarchive.org/eugenics/image_header.pl?id=139&printable=1&detailed=0.

³⁷ Galton, *Hereditary Genius*, 20.

comparative worths of a race based on intelligence followed by a chapter on how different influences, such as race, influence the “natural ability” of a nation. In a letter “Africa for the Chinese” published in *The Times* a few years later, he argued that the Chinese as a race were entirely capable of “high civilization” but that their development had been stunted by the failures of recent Chinese dynasties.³⁸ By publishing “Africa for The Chinese” in *The Times*, Galton gave his work a bit of notoriety. *The Times* was aimed at a larger, more wide-spread audience by catering towards the general population. Publishing this letter to the newspaper meant the general population was more likely to read his thoughts on racial hierarchy. These failures of development, according to Galton, are tied to social and political environments which had been fostered by these dynasties. Because the Chinese were “capable of high civilization,” Galton argued that they should be encouraged to immigrate to Africa. The native Africans, whom Galton had spent time with during his African expeditions and travels, were “inferior” and incapable of developing into or creating a “high civilization” based on his analysis.³⁹ The letter displays his early forays into racial hierarchy, a feature prominently echoed in the development of a Social Darwinian influence on eugenics.

In considering cultural circumstances, Galton began formulating a belief that many human societies, in their effort to protect the weak and underprivileged, were putting themselves at odds against natural selection.⁴⁰ Galton put forward that by protecting the “weak,” society was violating one of the fundamental parts of natural selection - the culling of the weakest. This is significant because the philosophy of care in western Europe, especially in the United Kingdom, France, and Germany, had centered around the protection of those that were incapable of taking

³⁸ Francis Galton, “Africa for The Chinese: To the Editor of The Times,” *The Times* (London, UK), June 5, 1873.

³⁹ Galton, “Africa for The Chinese.”

⁴⁰ Galton, “Typical Laws of Heredity,” 492.

care of themselves over the last several centuries due, in part, to perceived religious obligations and morality.⁴¹ The village had been the carers for the less fortunate and ill. As cities and urban centers began to grow, institutions were developed to house and care for the poor and ill.⁴² By the mid-to-late nineteenth century, psychiatric hospitals were numerous around England as placing the poor and mentally ill into the state care system increased. Local laws were either in place or being developed to institutionalize those seen as “abnormal.” National laws were also in the works, though it would take another fifteen years for national laws to be implemented regarding institutionalization of the mentally ill and feeble-minded.⁴³

Galton disagreed with the early beginnings of moral-based care for the ‘weak.’ Instead, he began formulating the idea that changing the social policies towards these individuals was the only way to prevent the “reversion towards mediocrity.”⁴⁴ The phrase “reversion towards mediocrity” was first used by Galton in a statistics paper. He soon changed the phrase to “regression towards the mean,” meaning the average trait in a population.⁴⁵ In other words, Galton believed that continued protection of the weak only created a growing number of individuals that would not normally survive, but they would contribute to the future population and continue their traits, lowering the average intelligence overall.⁴⁶ This concept is also a

⁴¹ T. P. Rees. “Back to Moral Treatment and Community Care: The Presidential Address Delivered at the One Hundred and Fifteenth Annual Meeting Held at Warlingham Park Hospital, 18 July, 1956.” *Journal of Mental Science* 103, no. 431 (April 1957): 306-307. <https://doi.org/10.1192/bjp.103.431.303>.

⁴² Deborah Brunton, *Medicine in Modern Britain 1780-1950* (London: Routledge, 2018): 63.

⁴³ *Lunacy Act, 1890: 53. Vict. Ch. 5.* 1890. <https://wellcomecollection.org/works/j87mjx7b/items>.

⁴⁴ Francis Galton, “Regression Towards Mediocrity in Hereditary Stature,” *The Journal of the Anthropological Institute of Great Britain and Ireland* 15 (1886).

⁴⁵ Michael Bulmer, *Francis Galton: Pioneer of Heredity and Biometry* (Baltimore: Johns Hopkins University Press, 2003): 224.

⁴⁶ Galton, “Regression Towards Mediocrity,” 255. The term “regression towards the mean” is still used today in statistics to describe a phenomenon where if a sample of a random variable is extreme, the next sampling from a group with the same random variable will be closer to the mean.

statistical point that Davenport would later rely heavily on in his early research in the United States as he picked up on the worry of the weak diluting the rest of the population.

Within a few years of his early eugenics' ideas, Galton published his observations about society, variation, and natural selection in *Inquiries into Human Faculty and Its Development* (1883) that introduced the term eugenics. Rather than detailing the “anthropometric differences,” Galton wished to develop the ideas related to “the cultivation of race,” or “eugenic questions.”⁴⁷ His definition in the footnote referred to the Greek term “*eugenes*, namely good in stock, hereditarily endowed with noble qualities,” equally applicable to men, brutes and plants.⁴⁸ Galton drew on the advancements in animal and plant breeding as a way for the process of good breeding to be applied to humans.⁴⁹

Galton also helped popularize the term “nature versus nurture” the same year he published *Inquiries* to spread hereditary thoughts to a wider audience. The phrase was meant to simplify the ongoing debate about heredity and the environment for the masses while doing lectures and other speeches as he discussed his book. It is also in 1883 that Galton introduced and encouraged a “marks” scheme to be implemented in England. This “marks” scheme addressed the issue of “paupacy” in the families of ‘eminent’ people. “Paupacy” was defined by Galton as having poor health or increased likelihood of dying prematurely.⁵⁰ Galton believed this was connected to the age of ‘eminent’ men when they married and had children. Statistically during this time period, ‘eminent’ men waited until they were much older to ‘settle down’ via

⁴⁷ Francis Galton, *Inquiries into Human Faculty and Its Development* (London: Macmillan and Co., 1883), 24-25.

⁴⁸ Galton, *Inquiries into Human Faculty*, 24-25.

⁴⁹ A good example of the popularity of breeding in animal and plant stocks comes from S. L. Goodale's *the Principles of Breeding or, Glimpses at the Physiological Laws involved in the Reproduction and Improvement of Domestic Animals* (1861). Improvement in the average stock of animals was a popular debate during Galton's time and would have been a cornerstone of all heredity research and theory.

⁵⁰ Galton, *Inquiries into Human Faculty*, 182.

marriage and have children. Because of their age, Galton believed the ill health of the resulting children was connected to the advanced age of the father. According to Galton, individuals with undesirable traits were passing on their traits in much greater numbers compared to the notable families because they began childrearing much earlier, contributing to the “regression to the mean.”⁵¹ This *dysgenic* (a force which exerts pressure onto the traits being passed on) issue of age by older ‘eminent’ men had to be corrected. For this, Galton proposed an incentive plan, either with money or other sought-after commodities, that would encourage families with high marks of desirable traits to have children.⁵² Galton's hope was that using a merit system for families would encourage prominent families, or families with higher scores, to marry and have children at a younger age. This would thus remove the issue of age as a factor in reproduction and increase the likelihood that prominent families would begin producing more children that survived long enough to have their own families.⁵³

Over the next decade following his publication on eugenics, Galton continued to advocate for the advancement of selective human breeding and attempted to establish himself as one of the leading voices in the field. Having already had the benefit of money to fund his research, Galton used a network of contacts to gain access to positions and events that continued to keep him at the forefront.⁵⁴ Galton’s work was generally well received by scientific readers, but it wasn’t always well received by the public. Much of the general criticism by non-science readers stemmed from the critical views of the Church and the over-exaggeration on the role of heredity compared to family influence and social class.⁵⁵ The main response, however, was that

⁵¹ Galton, *Inquiries into Human Faculty*, 323.

⁵² Galton, *Inquiries into Human Faculty*, 323-324.

⁵³ Francis Galton, *Natural Inheritance* (New York: Macmillan, 1889): 15.

⁵⁴ John C. Waller, “Gentlemanly Men of Science: Sir Francis Galton and the Professionalization of the British Life-Sciences,” *Journal of the History of Biology* 34, no. 1 (2001): 86-87.

⁵⁵ Emel Aileen Gökyiğit, “The Reception of Francis Galton’s “Hereditary Genius” in the Victorian Periodical Press,” *Journal of the History of Biology* 27, no. 2 (1994): 217. <https://www.jstor.org/stable/4331310>

Galton's methodology was both scientific and sound, making it valid, but often times his interpretations were extreme. Many argued that his statistical data could be interpreted in multiple ways, thus scientific reviewers agreed with the method and his theory but not with his conclusions.⁵⁶ This argument of sound methodology for his work allowed Galton to retain his high positions within scientific communities and societies and continue to promote the appeal of using the new science to ameliorate social problems.

In 1901, Galton again addressed eugenics issues while delivering the second Huxley lecture at the Royal Anthropological Institute.⁵⁷ During this lecture, he specifically suggested the implementation of positive and negative eugenics. Building on his previous "marks" scheme from 1883, Galton argued that people in the "positive eugenics" category should be encouraged to have children because they had desirable traits that should be passed on.⁵⁸ This, much like his "marks" scheme years before, also targeted the perceived notion of lower-class groups with undesirable traits having children in higher numbers compared to the wealthy and upper social classes.⁵⁹ Galton's "negative eugenics" was the category of groups with undesirable traits and therefore, detrimental to the continued growth of civilization.⁶⁰ For example, traits such as alcoholism and continued lower economic status within families were seen as negative traits. By implementing positive and negative eugenics, Galton was encouraging the prevention of lower-class social groups from having children while encouraging upper class social groups to have them.⁶¹

⁵⁶ Gökyiğit, "The Reception of Francis Galton's "Hereditary Genius," 237.

⁵⁷ Francis Galton, "The Possible Improvement of The Human Breed Under the Existing Conditions of Law and Sentiment," *Nature* 64 (1901), 659.

⁵⁸ Galton, "The Possible Improvement," 663-664.

⁵⁹ Galton, "The Possible Improvement," 664.

⁶⁰ Galton, "The Possible Improvement," 663-664.

⁶¹ Galton, "The Possible Improvement," 663-664.

In 1904, Francis Galton established the Eugenics Records Office in London by helping to financially supplement the Records Office.⁶² Galton's endowment of £500 per year over three years provided the money to create a Fellowship in National Eugenics at University College London. Known as the Francis Galton Research Fellowship, Galton ensured that his name would forever be linked with the establishment of the Eugenics Records Office. Galton led the ERO for two years before he stepped down, allowing his protege, Karl Pearson (who had been the leader of the Biometric Laboratory), to take over the directorship while Galton himself remained as an informal consultant.⁶³ In 1907, a suggested plan was submitted to the University of London Senate (their governing board) for the Francis Galton Laboratory for the study of National Eugenics to continue research until 1910 with additional grants of £1000 from Galton to cover the 1908 and 1909 years. This ensured that Galton's name continued to be linked to the study of eugenics at UCL.⁶⁴

Pearson, a British mathematician and biostatistician, founded the first university statistics department at University College London.⁶⁵ Pearson believed that the use of scientific eugenics studies could act as a guide for moral conduct and public policy in society.⁶⁶ He was the founder of both the statistics journal *Biometrika* (1891) and the *Annals of Eugenics* (1926). After meeting Davenport in London, Pearson invited the enthusiastic Charles Davenport to join him as a contributor and editor of *Biometrika*.

⁶² UCL Archives. "GALTON LABORATORY - Galton Laboratory Records," n.d. <https://archives.ucl.ac.uk/CalmView/Record.aspx?src=CalmView.Catalog&id=GALTON+LABORATORY>.

⁶³ UCL Archives. "GALTON LABORATORY - Galton Laboratory Records."

⁶⁴ UCL Archives. "GALTON LABORATORY - Galton Laboratory Records."

⁶⁵ Bulmer, *Francis Galton: Pioneer*, 3.

⁶⁶ Karl Pearson, *The Groundwork of Eugenics* (London: Dulau and Co, 1909): 32.

Davenport's Life before Eugenics

Remembered fondly by a former student named Oscar Riddle, Charles Davenport was noted as a “distinguished zoologist, geneticist and eugenicist” in his memorial biography in 1947.⁶⁷ Born in 1866 near Stamford, Connecticut, Charles Davenport was one of eleven children of Amzi Benedict Davenport, an abolitionist of Puritan ancestry, and Jane Joralmon Dimon.^{68,69} Davenport's family was well off; he grew up in Garden Place, Brooklyn Heights and spent his summers in Stamford on the family's farm. He spent much of his time at home being tutored as directed by his father's Protestantism which emphasized learning and developing a hard work ethic.

In his youth, Charles Davenport worked as a janitor and errand boy for his father's business.⁷⁰ His father encouraged him to become an engineer, and he earned a B.S. in civil engineering and worked briefly as an engineer. Davenport saved up money to enroll at Harvard to pursue his interest in biological sciences.⁷¹ At Harvard, Davenport proved to be an astute student and went on to earn his Ph.D. in biology, specifically studying invertebrate morphology, in 1892.⁷² It was not long after this that he proposed to Gertrude Crotty, whom he married in

⁶⁷ Oscar Riddle, “Biographical Memoir of Charles Benedict Davenport, 1866-1944.” In *National Academy of Sciences of the United States of America Biographical Memoirs*, 25 (National Academy of Sciences, 1944): 76.

⁶⁸ It is a mark of the high regard still for eugenics and hereditarian views in 1944 that Riddle thought it important to include the ancestry of Davenport's father and mother, who was of “English-Dutch- Italian ancestry” (p. 75). It has not escaped notice that Davenport himself comes from Italian ancestry considering his, and especially Harry Laughlin's targeting of Southern Europeans – mainly Italians – as being of lesser intelligence and breeding stock. There is some irony in this fact, especially as Oscar Riddle notes in his biography that Davenport's mother was knowledgeable on natural history and was supportive of his interests in the subject.

⁶⁹ Cold Spring Harbor Laboratory. “Charles B. Davenport.” Accessed November 5, 2023. <https://www.cshl.edu/personal-collections/charles-b-davenport/>.

⁷⁰ Riddle, “Biographical Memoir of Charles Benedict Davenport,” 76.

⁷¹ Oscar Riddle, “Charles Benedict Davenport,” *Science* 99, no. 2579 (1944): 441.

⁷² Cold Spring Harbor Laboratory, “Charles B. Davenport.”

1894. Gertude was from another well-off family and had graduated from the “Harvard Annex” (later Radcliffe College) at the same time as Davenport.

For a few years following his marriage to Gertude, both Davenport and his wife worked in the United States as scientists. Davenport worked in Chicago from 1899 to 1904 as the curator of the Zoological Museum at the University of Chicago and as a professor of zoology.⁷³ As a zoologist, Davenport chose to focus his efforts on taxonomy. Taxonomy is a branch of science that focuses exclusively on the classification of things. When applied to biological sciences, it is concerned with the classification of organisms. It was through his work as a zoologist that Davenport pioneered new quantitative standards of taxonomy, showing his interest in quantitative studies before his interest in eugenics.⁷⁴ His interest in quantitative studies led him to reading statistics publications by Karl Pearson in the 1890s, introducing U.S. scientists to the quantitative methods used by Pearson and Galton before he met them a few years later.⁷⁵ While working at the Zoological Museum, Davenport and his wife took a sabbatical near the turn of the century and traveled to Europe, starting with England.⁷⁶ While in England, Davenport met and worked with Francis Galton and his protege, Karl Pearson. Upon meeting Galton and Pearson, Davenport became invested in learning about eugenics and biostatistics.⁷⁷

By the end of his sabbatical, Davenport had developed a deep fascination with eugenics and had begun to develop his own ideas and theories on the subject. Following in Galton's footsteps, Davenport took to and stuck with the use of statistics as one of the only and best means of collecting data that supported the ideas encompassed in eugenics.⁷⁸ He did not

⁷³ Riddle, “Biographical Memoir,” 79.

⁷⁴ Riddle, “Biographical Memoir of Charles Benedict Davenport,” 79.

⁷⁵ Riddle, “Biographical Memoir of Charles Benedict Davenport,” 78.

⁷⁶ Cold Spring Harbor Laboratory Digital Archives, “Charles B. Davenport (1866-1944) Biography,” https://library.cshl.edu/sp/scientists/charles_davenport/davenport_biography.html

⁷⁷ Allen, “Eugenics and Modern Biology,” 314-315.

⁷⁸ Allen, “Eugenics and Modern Biology,” 314.

immediately join research endeavors into eugenics, instead choosing to stick with zoology to explore the potential of inheritance of traits. It was his wife Gertrude who continued to encourage his research and its application in eugenics. Academic opportunities were low for academic scientists in the United State for most of the 1890s. With a lack of employment opportunities, Davenport focused on earning money as Gertrude scanned obituaries in *Science*, writing to the universities of recently deceased professors to inquire about jobs on her husband's behalf.⁷⁹ It was not until 1905 that Davenport became interested in eugenics at the insistence of his wife who persuaded him that "eugenics was a viable biological research program and after he became increasingly involved with the newly founded ABA (American Breeders' Association)."⁸⁰

Davenport, the Carnegie Institution, and Establishing the ERO

Within a year or so of returning to the United States, Charles Davenport sought means of funding research into heredity in the U.S. Without major interest in most of the country, finding the means to fund his research was a challenge for Davenport. In 1904, Davenport's wish for funding came to fruition. He applied to the new Carnegie Institute of Washington (from here on referred to as the CIW) in 1902 and again in 1903 for a grant of \$45,000 to fund an experimental research station.⁸¹ Charles Davenport was placed as the director of the Station for Experimental Evolution at Cold Spring Harbor on Long Island in 1904.⁸² Davenport's goal at Cold Spring Harbor was to begin research on experimental breeding to transform species. This initial focus

⁷⁹ Largent, *Breeding Contempt*, 40.

⁸⁰ Largent, *Breeding Contempt*, 42.

⁸¹ Significantly, Pearson wrote a letter to the Carnegie Institute, supporting the idea of a laboratory for the experimental study of evolution and Davenport himself, who had "energy and keenness of interest and would keep himself in touch with European workers and methods." Quoted in E. Carleton MacDowell, "Charles B. Davenport, 1866-1944: A Study of Conflicting Influences," *Bios* 17, no. 1 (1946): 20.

⁸² Cold Spring Harbor Laboratory. "Charles B. Davenport."

had nothing to do with heredity in humans but rather in animal and plant species as Davenport began exploring Mendelian inheritance.⁸³

The Biological Laboratory at Cold Spring Harbor had begun fourteen years before as a summer program for high school and college teachers who studied biology, zoology, botany, comparative anatomy, and nature.⁸⁴ Led by Eugene G. Blackford and the director of the Brooklyn Institute of Arts and Sciences, Franklin Hooper, in its early years, The Biological Laboratory was bought by the CIW in late 1900. It was after this purchase by the CIW that they established the Station of Experimental Evolution. This is the station that Charles Davenport was placed in charge of in 1904.

There is little in the way of published eugenics research over the next six years from Davenport or the Cold Spring Harbor Laboratory apart from a few select articles in *Biometrika* discussing methodology for eugenics research before his falling out with Karl Pearson sometime in 1906 or 1907 over Mendelian inheritance, resulting in Davenport resigning from his post as an editor of the journal.⁸⁵ Instead, Davenport worked to increase the animal stock within the Department of Experimental Evolution (a renaming in 1906) while encouraging the Carnegie board members and other social elites to help fund the development of a eugenics records office, similar to what Galton had in London. Research in “Experimental Evolution” meant genetic studies, germ-line studies, and ecological and agricultural studies via animal and insect

⁸³ Largent, *Breeding Contempt*, 44-45.

⁸⁴ Allen, “Eugenics and Modern Biology,” 315.

⁸⁵ Garland Allen discusses in “Eugenics and Modern Biology” (315) that the falling out between Pearson and Davenport had to do with the Mendelian approach to biology and genetics. Davenport was a staunch Mendelian whereas Pearson was not. Pearson was extremely skeptical of the Mendelian approach which led to tension with Davenport. Davenport resigned from *Biometrika* in response to Pearson’s skepticism and their arguments. Pearson and the Galton Laboratory ended up being some of Davenport’s harshest critics when it came to his research methodology, calling it sloppy and lacking “any normal scientific rigour.”

experiments, as suggested by Davenport's original grant proposal in 1902.⁸⁶ Davenport, however, began wanting funding for an institute focused solely on the study of eugenics by 1905.⁸⁷

With the help of his continued support and spread of eugenic ideology in the United States, Davenport finally was granted his wish when the CIW established the Eugenics Record Office (ERO) in 1910. Successfully petitioning the CIW that the ERO would collect data relevant to genetics research, Davenport gained some funding to establish the institute he had wanted. It did help that the CIW was already looking for different research proposals on the subject, but Davenport's persuasive arguments, as well as his previous work with the CIW, gave him the advantage of being awarded the grant. Davenport not only managed to convince the CIW to fund the ERO, but he convinced Mary Harriman, widow of E.H. Harriman, the railroad baron, to be the major benefactor of the new office until 1918 when the CIW accepted ownership from her.⁸⁸ She also bought the estate above the Station to be the new ERO campus.⁸⁹ The CIW and Mary Harriman were not the only financiers to the ERO although they were the major backers until the ERO was closed in 1939. There were numerous other contributors from wealthy families who shared interest in eugenics research such as John Harvey Kellogg, the American businessman and physician known for his promotion of vegetarianism and his work as director of the Battle Creek Sanitarium. The Rockefeller Foundation was also a major contributor, but they joined at a later point. The same applies to John Harvey Kellogg. The Kellogg's joined as financiers of the ERO after Davenport had been a member of the Kellogg Racial Betterment

⁸⁶ Charles B. Davenport, "Biological Experiment Station for Studying Evolution," In *Carnegie Institution of Washington Yearbook No. 1: 1902* (Washington: Carnegie Institution of Washington, 1903): 280-282.

⁸⁷ Largent, *Breeding Contempt*, 46-47.

⁸⁸ Riddle, "Biographical Memoir of Charles Benedict Davenport," 83-84.

⁸⁹ MacDowell, "Charles Benedict Davenport," 29, Her contributions over the years came to "considerably more than half a million dollars."

Foundation for a while.⁹⁰ With the support and backing of these wealthy and powerful individuals, Davenport was ready to begin his research into eugenics in earnest.

It was not long after the establishment of the ERO that Charles Davenport was contacted by a former schoolteacher at the State Normal School in Kirksville, Missouri named Harry H. Laughlin. Laughlin, impressed by the early works coming from Cold Spring Harbor, reached out to Davenport in 1907 with the hope of learning more about the current research on chicken breeding going on at Cold Spring Harbor.⁹¹ Although he had a Ph.D. in biology, Laughlin was more interested in the application of eugenical research by enacting eugenics laws and enforcement through the state. It is not clear when they began discussing eugenics but at some point over three years, Davenport and Laughlin became close enough for Laughlin to move to New York to work as a editor for *Eugenical News* and then take up the offered position as managing director of the ERO – a position not unlike that of assistant director which allowed him contact with high profile individuals interested in social eugenics.⁹²

With the ERO established, Davenport pulled from methods used by Galton and Pearson to collect data. Davenport worked with his wife to figure out the best method of mass data collection, keeping in mind that several individuals being surveyed had little to no education or literacy.⁹³ To deal with this, questionnaires were created that had a list of questions that could be asked by trained fieldworkers and answered by the surveyed individuals regarding family histories and personal characteristics.⁹⁴ Most of the information that was collected regarding

⁹⁰ "Eugenics registry of the Race Betterment foundation, Battle Creek, MI," 1917-1918, American Philosophical Society, ERO, 1. <http://www.eugenicsarchive.org/html/eugenics/static/images/200.html>.

⁹¹ Allen, "Eugenics and Modern Biology," 315.

⁹² Largent, *Breeding Contempt*, 56.

⁹³ Jan A. Witkowski, "Davenport's Dream," In *Davenport's Dream: 21st Century Reflections on Heredity and Eugenics*, ed. Jan A. Witkowski and John R. Inglis (Cold Spring Harbor, N.Y.: Cold Spring Harbor Laboratory Press, 2008):

⁹⁴ Allen, "Eugenics and Modern Biology," 316.

individuals focused heavily on physical characteristics, mental characteristics, and questions about general temperament of the person.⁹⁵ In order to ensure a wide enough sample size was gathered, data collectors were hired to go door to door and fill out the questionnaires of the household. These data collectors were usually well-educated women attached to state mental hospitals, insane asylums, or almshouses to take family histories of patients in the institution to determine the degree of heritability of their condition.⁹⁶ By January 1916, the ERO had trained over one hundred fieldworkers, at least a third of whom the ERO claimed were still in active roles in the field.⁹⁷ The ERO wanted to have fieldworkers with a variety of qualities including: industry, loyalty, social qualities, and an interest in people.⁹⁸

Not all information was collected via door-to-door questionnaires, some questionnaires were sent through the mail to reach a wider audience.⁹⁹ To ensure cooperation, particularly from middle-class families who would often question the need to fill out the form, the ERO promoted the questionnaire to learn more about the family's genetic lineage and family history. The propaganda used by the ERO didn't stop at just claiming the learning of family lineages, posters also gave information on how it can inform "intelligent breeding" in the modern American family.¹⁰⁰ Pamphlets were also passed out to spread awareness of what eugenics was and why filling out information for the ERO was vital to the continued success of the United States.¹⁰¹ The ERO, despite hesitation by the board, became a resource for eugenics information and

⁹⁵ Garland E. Allen, "The Eugenics Record Office at Cold Spring Harbor, 1910-1940: An Essay in Institutional History," *Osiris* 2 (1986): 240.

⁹⁶ Allen, "The Eugenics Record Office," 241.

⁹⁷ Amy Sue Bix, "Experiences and Voices of Eugenics Field-Workers: 'Women's Work' in Biology," *Social Studies of Science* 27, no.4 (1997): 642. <https://www.jstor.org/stable/285560>.

⁹⁸ "Qualities Desired in a Eugenical Field Worker," 1921. The Harry H. Laughlin Papers. Truman State University. <http://www.eugenicsarchive.org/html/eugenics/static/images/1101.html>.

⁹⁹ Allen, "The Eugenics Record Office," 241.

¹⁰⁰ Allen, "The Eugenics Record Office," 249.

¹⁰¹ Allen, "The Eugenics Record Office," 252.

propaganda. Laughlin encouraged the formation of new eugenics organizations and prompting existing organizations that were not using eugenics to take on eugenics' studies.¹⁰²

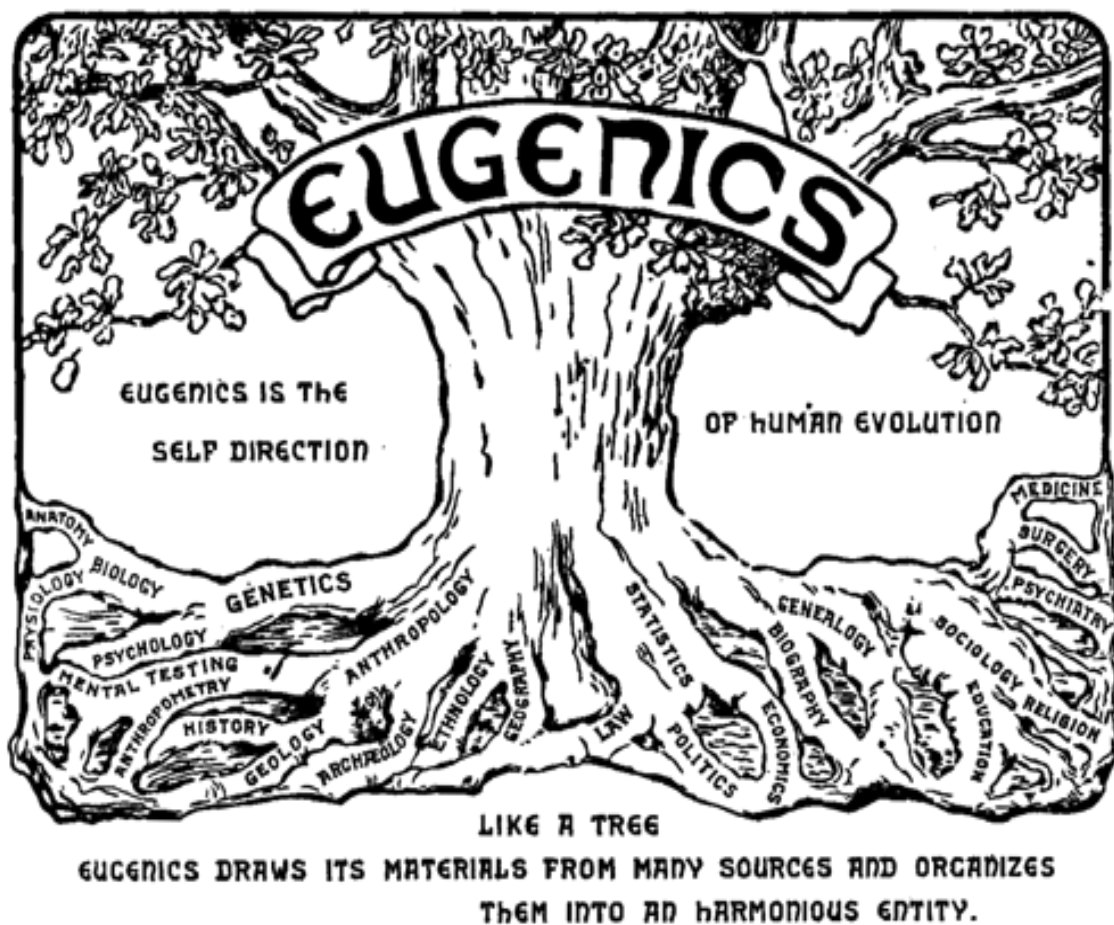


Figure 1.1 The Second International Congress of Eugenics Logo (1921). Wikimedia Commons.¹⁰³

Perhaps the most important way the ERO spread the message about eugenics and the questionnaires was through the scientific journal, *Eugenical News*.¹⁰⁴ *Eugenical News* was established in 1910 by the ERO as a form of newspaper, urging eugenicists to send them news,

¹⁰² Allen, "The Eugenics Record Office," 226 and 242.

¹⁰³ Harry H. Laughlin, *The Second International Exhibition of Eugenics held September 22 to October 22, 1921, in connection with the Second International Congress of Eugenics in the American Museum of Natural History, New York* (1923). https://commons.wikimedia.org/wiki/File:Eugenics_congress_logo.png.

¹⁰⁴ Allen, "Eugenics and Modern Biology," 314.

“Especially is it important that we should know of all agencies that are making careful studies of family histories.”¹⁰⁵ *Eugenical News* ran information on surname distributions based on data collected from various counties and states, along with information regarding who was conducting research into criminality, delinquency, mental disorders, and more.¹⁰⁶ It also published information regarding which colleges and universities had courses in genetics, eugenics, or both for the interest of their readers. Laughlin used *Eugenical News*’ later publications to emphasize the importance of states using questionnaires to gather data for their own independent eugenics’ offices.¹⁰⁷

¹⁰⁵ *Eugenical News* 1-5, no. 1 (Cold Spring Harbor, N.Y: Carnegie Institute of Washington, 1916): 5. <https://babel.hathitrust.org/cgi/pt?id=mdp.39015076969768&seq=7>.

¹⁰⁶ *Eugenical News* 1-5, 5

¹⁰⁷ Allen, “Eugenics and Modern Biology,” 320.

Chapter 2: Davenport's Research

The Feeble-minded and Criminality

During the early years of his research after turning to eugenics, Charles Davenport focused his investigations on the inheritance of human personality traits and mental traits. His early published works were based on Francis Galton's own style of research; however, Davenport took a Mendelian inheritance approach that Galton did not. The Galton Laboratory, run by Karl Pearson, had turned towards the more experimental science methods and Pearson's quantitative analysis of continuous variation left him skeptical of Mendelian "factors" of inheritance.¹⁰⁸ Rediscovered in 1900 by Dutch botanist Hugo de Vries and German botanist Carl Correns, Gregor Mendel's inheritance theory was quickly adopted and popularized by William Bateson who also coined the terms genetics and alleles.¹⁰⁹ Davenport relied on Mendelian inheritance laws¹¹⁰ to formulate his own hypotheses on heredity in combination with August Weismann's germ plasm theory.¹¹¹ Under Mendelian inheritance and guided by germ plasm theory, Davenport was able to create a narrative of inheritance occurring in utero without the ability to change the outcome by treating the parent for their undesirable trait.

¹⁰⁸ Allen, "Eugenics and Modern Biology," 315.

¹⁰⁹ Florence H. Danielson, and Charles B. Davenport, *The Hill Folk; Report on a Rural Community of Hereditary Defectives*, (Cold Spring Harbor, NY: Eugenics Record Office. Memoir No.1, 1912): 7. <https://babel.hathitrust.org/cgi/pt?id=hvd.hc2x8j&seq=9>.

¹¹⁰ Jean Gayon provides a comprehensive explanation of Mendel and epigenetics in "De Mendel à l'épigénétique : histoire de la génétique," *Compte Rendus Biologies* 339, no. 7 (2016). Mendelian inheritance relied on three laws in the decade following re-discovery: the Law of Dominance, the Law of Segregation, and the Law of Independent Assortment. The Law of Dominance states that some alleles are dominant while others are recessive. The Law of Segregation states that during gamete formation, alleles for each gene segregate from each other so each gamete carries only one allele for each gene. The Law of Independent Assortment states that during the formation of gametes, genes of different traits can segregate independently.

¹¹¹ August Weismann developed germ-plasm theory in 1892, claiming that heritable information is transmitted only by germ cells in the ovaries and testes, not by somatic cells. Weismann believed that somatic cells could not pass on information to germ plasm and thus cannot be passed on to the next generation. This remains a counter argument to Lamarckism which proposed that acquired traits can be passed on to the next generation.

By 1911, Mendelian factors had become an accepted part of the scientific community in America, driving the direction of scientific research. With the support of the CIW, Davenport published his first book *Heredity in Relation to Eugenics* (1911) which was a culmination of the previous six years of work on heredity and the previous years' work on human heredity studies under Mendelian inheritance. The purpose of the book, according to Davenport, was "to incite further investigation" into the family heritages of United States citizens to properly match individuals for marriage and reproduction.¹¹² *Heredity in Relation to Eugenics* argued that many human traits were genetically inherited and thus meant it is possible to selectively breed people for desirable traits.¹¹³ As Davenport frames it:

"Of the 1200 thousand who reach full maturity each year 40 thousand will be ineffective through temporary sickness, 4 to 5 thousand will be segregated in the care of institutions, unknown thousands will be kept in poverty through mental deficiency, other thousands will be the cause of social disorder and still other thousands will be required to tend and control the weak and unruly."¹¹⁴

To that end, *Heredity* was meant to act as a manual of how heredity of human traits occurred in families using pedigree charts to display the inheritance distribution of multiple families on the East Coast of the United States.

Most of *Heredity* covers different family traits which can be inherited according to Davenport. Those traits range from physical characteristics such as hair color and eye color to more subjective traits such as temperament, handwriting, and mental abilities.¹¹⁵ Under each of the traits, Davenport uses examples of family pedigree trees to trace the likelihood of those traits

¹¹² Charles Davenport, *Heredity in Relation to Eugenics* (New York: Henry and Holt Company, 1911): iv.

¹¹³ Davenport, *Heredity in Relation to Eugenics*, 1.

¹¹⁴ Davenport, *Heredity in Relation to Eugenics*, 3.

¹¹⁵ Davenport, *Heredity in Relation to Eugenics*, 36-38, 63.

being passed down. Using the basic laws of Mendelian inheritance, Davenport traces whether specific traits can be considered dominant traits, and how those traits are passed down as they are expressed. An example of a trait that Davenport considered to be dominant is that of “mechanical skill,” which he ultimately calculated such ability based on the mathematical skills of the families studied.

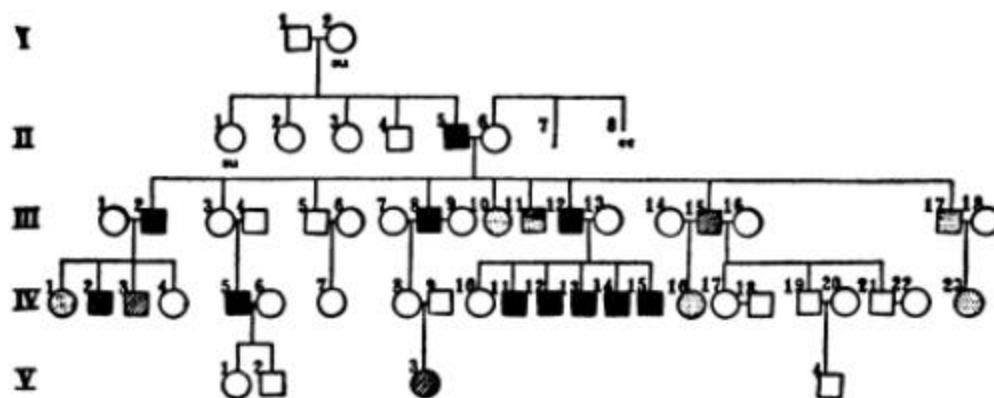


FIG. 24.—Pedigree of family with mechanical and inventive ability, particularly in respect to boat-building. I, 2, a suicide; II, 1, a suicide. His brother, II, 5, a builder of swift boats and yachts, II, 7, insane; II, 8, eccentric. The union of these two strains with evidence of nervous instability resulted in a family of 9 children and 18 grandchildren. Four of the sons show a high degree of inventive ability and 2 of these III, 8-12, developed the genius of their father in designing and building swift and beautiful boats. Three are musicians, III, 10, 11, 17, and one of them, III, 11, shows also mechanical ability. In the next generation these traits reappear in the various fraternities. IV, 1, is a musician; 2 has much mechanical skill and 3 is inventive; 5, is a builder of fine boats; IV, 11-15 represent 5 boys, none over 22, but already designing boats; two other daughters of this generation show artistic and musical talent and, finally, in the next generation we have a girl of 14, V, 3, designing boats. F. R.; H.

Fig. 2.1 Example Pedigree Chart for the “Mechanical Skill” traits used by Charles Davenport in *Heredity in Relation to Eugenics*.¹¹⁶

¹¹⁶ Charles Davenport, *Heredity in Relation to Eugenics* (New York: Henry and Holt Company, 1911), 56, Figure 24.

The resulting published work is Davenport's assessment of desirable traits on American families, how individuals influence race, and on the impact of early and recent migration to the United States from European nations. Davenport focuses on the need for control of immigration in the United States to preserve the desirable traits he indicated in his book without introducing undesirable traits, something that becomes incredibly important over the next decade for Davenport, Laughlin, and the ERO.¹¹⁷ *Heredity* has an extensive number of traits that Davenport reports on which made it an excellent resource of human trait information. It can be deduced that it quickly became one of the most influential books in the early twentieth century as it was used for over a decade as a college textbook.¹¹⁸

Within a year, Davenport published another major report, this time one that was more focused on a particular trait - alcoholism. Published in 1912, *Alcoholism in a Rural Community of Defectives* was Davenport's first research paper turned lecture using the ERO's collection team to gather data on an illness he believed to be hereditary and one of the more egregious undesirable traits plaguing the United States during this period. Using field studies to collect data on rural families, data collectors were instructed to gather and describe the effects of alcohol on individuals within those families, including the potential for criminality, as well as study those effects through several generations.¹¹⁹

The rural nature of the families Davenport was looking to study meant that the number of generations was often limited to only two or three generations at most, due to a lack of written records. This led Davenport's investigation to come to conclusions not fully representative of the

¹¹⁷ Davenport, *Heredity in Relation to Eugenics*, 220-224.

¹¹⁸ "Charles Davenport's *Heredity in Relation to Eugenics*," Curated by Michael Holland, 2011, Special Collections and Archives, University of Missouri. Accessed August 16, 2023. <https://library.missouri.edu/specialcollections/exhibits/show/controlling-heredity/america/heredity>.

¹¹⁹ Davenport, *Heredity in Relation to Eugenics*, iv-v.

data collected. To measure consumption of alcohol per person, Davenport used glassware as a unit of measurement, though that was not standardized across the board. Davenport found that families with high rates of drinking alcohol on both sides of the family resulted in high alcohol consumption by the resulting child.¹²⁰ In families with ‘mixed’ parentage (one side of the family had a history of drinking alcohol in excess and the other did not), Davenport concluded that the results of children would be around fifty percent with “self-control.”¹²¹ Following the decreasing trend, Davenport found that in families with no history of drinking, around seventy-five percent of resulting children have “self-control.”¹²²

This study, while being aimed at determining the potential rate of passing on undesirable traits, drew criticism after its publication. There were issues with the research itself, including small sample sizes for the number of rural families and classism when it came to determining who had “self-control” and who didn’t. Davenport relied on more than just the number of drinks consumed per day to determine whether an individual was considered in ‘self-control.’ Job status, education, whether there were criminal records, and the number of children who were “feeble-minded” played heavy roles in Davenport’s conclusions.¹²³

The term feeble-minded, while not new by Davenport’s time-period, was a term that had a nebulous definition for most of its use. It was first used in the late nineteenth century in Europe, particularly in the United Kingdom where concerns of mental diseases/illnesses were a growing issue as psychiatric institutes grew at incredibly fast rates.¹²⁴ Individuals labeled as

¹²⁰Charles B. Davenport, “Alcoholism in a Rural Community of Defectives,” 1912. Mss.B.D27 - Charles B. Davenport Papers, American Philosophical Society. <https://diglib.amphilsoc.org/islandora/object/text:273849/#page/1/mode/1> up.

¹²¹ Davenport, “Alcoholism in a Rural Community,” 1.

¹²² Davenport, “Alcoholism in a Rural Community,” 3.

¹²³ Davenport, “Alcoholism in a Rural Community,” 3.

¹²⁴ Claire Hilton, *Civilian Lunatic Asylums During the First World War: A Study of Austerity on London’s Fringe*, (Cham, Switzerland: Springer International Publishing, 2021), 33.

feeble-minded had a wide scope from those with mental illness (both depression and anxiety were included in this label as it made them “fragile”) and those with lower intelligence levels.¹²⁵ Intelligence levels were tested using a series of “tests” that were created during the nineteenth century to determine where the individual scored on a normative scale; however, these tests did not factor in the lack of educational opportunities available to the study families, something that Davenport also failed to account for in his own studies.¹²⁶

By the time Charles Davenport was conducting his research, the definition of feeble-minded had landed on a broad definition of anyone with intellectual disabilities or disabilities that distanced individuals from societal “norms.” This included individuals with various mental illnesses.¹²⁷ By 1912, a system of defining levels had been created for doctors and researchers to use during their work; it would also later be used by politicians as a justification for involuntary sterilization.¹²⁸ The lowest ranking of this system was ‘idiocy’, and it was considered the most severe of the mental deficiencies. This was applied to individuals who struggled to function in any real capacity without constant aid. The middle ranking was ‘imbecility’ and this level had multiple degrees compared to the lowest ranking and the highest ranking. The broad spectrum of mental deficiencies that doctors and scientists identified resulted in many of them being placed in the middle ranking, thus resulting in degrees.¹²⁹ Henry H. Goddard coined the term “moron” in 1912 to describe the varying mild levels of mental deficiencies that fell into the middle and highest ranking. The highest ranking of the mental deficiency chart was ‘feeble-minded.’ These

¹²⁵ Roy Porter, *Madness: A Brief History* (Oxford: Oxford University Press, 2002): 127-128.

¹²⁶ Allen, “Eugenics and Modern Biology,” 314 and 321.

¹²⁷ Mathew Thomson, *The problem of mental deficiency: eugenics, democracy, and social policy in Britain c. 1870-1959* (New York: Oxford University Press, 1997): 14.

¹²⁸ Mathew Thomson argues that mental deficiency rankings predate Charles Trevelyan’s use of them in *The problem of mental deficiency* (1997). Psychiatric institutions in the United Kingdom had used some form of them for at least a decade before Trevelyan used rankings in 1876.

¹²⁹ Leila Zenderland, *Measuring Minds: Henry Herbert Goddard and the Origins of American Intelligence Testing*, (New York: Cambridge University Press, 2001): 368.

included deficiencies that still let the individual live a mostly normal life, the modern equivalent of being on the high end of functioning with whatever deficiency was identified.¹³⁰

The same year that Davenport published *Heredity*, two other influential works were published by the ERO under Davenport's direction. ERO Memoir No. 1, *The Hill Folk: Report on a Rural Community of Hereditary Defectives* by Florence H. Danielson and ERO Memoir No. 2, *The Nam Family: A study in cacogenics* by Arthur H. Estabrook were co-authored by Charles Davenport. Published in August 1912, these two works fell in line with the incredibly popular book, published just a month later in September, *The Kallikak Family: A study in the heredity of feeble-mindedness* by American psychologist Henry H. Goddard.¹³¹ *The Hill Folk* and *The Nam Family* were studies into lineages of families in rural Massachusetts and New York State looking for the heritability of criminality, disease, and pauperism (the perpetual state of poverty). Pulling from a previous study in 1877 by Richard Dugdale into the "Jukes" family, Danielson, Davenport, and Estabrook traced individual family lines using pedigree charts to show the likelihood of traits being passed on to offspring.¹³²

The Hill Folk study was important for the determination of criminality in family lines and the cost of those "criminal" strains on the state itself. Having followed four family lines connected through intermarriage, Davenport immediately claimed a connection to a "shiftless

¹³⁰ Henry Herbert Goddard, *Feeble-mindedness: its causes and consequences*, (New York, Macmillan, 1914): 4. <https://catalog.hathitrust.org/Record/000657418>.

¹³¹ Florence Danielson and Charles B. Davenport, *The Hill Folk; Report on a Rural Community of Hereditary Defectives*, Eugenics Record Office. Memoir No.1. (Cold Spring Harbor: Press of the New Era Printing Co, 1912). <https://catalog.lib.ncsu.edu/catalog/NCSU464578>.

Charles B. Davenport and Arthur Estabrook, *The Nam Family: a study in cacogenics*, Eugenics Record Office. Memoir N. 2. (Cold Spring Harbor: Press of the New Era Printing Co, 1912).

<https://play.google.com/books/reader?id=Osk5AQAAMAAJ&pg=GBS.PA29&hl=en>

¹³² It is important to note that most historians and historians of science focus heavily on *The Jukes* and *The Kallikak Family* despite the fact *The Hill Folk* was published a month before Goddard's book. Davenport and Danielson's book is often overlooked in the secondary literature despite how important it was for the development of quantitative analysis of heredity in eugenics.

basket maker” that was “possibly of French origin, but migrated more directly from the western hill region” sometime around the year 1800.¹³³ Although the book itself focuses on the different presentations of undesirable traits for the family lines (i.e. one family strain is the heritability of alcoholism and another family has “criminality along sexual lines”), Davenport makes it clear that the study of the germ-plasm is still difficult to do as analysis of characteristics can be hard to achieve.¹³⁴ However, Mendelian genetics developed experimental evidence of the role of the chromosome and other theories by this point using fruit flies as their study subjects, proving Davenport’s claim false. Thomas Hunt Morgan’s experiments with *Drosophila* in 1910 helped to establish the idea of chromosomes being the structure to carry inheritable genes. After multiple generations of fruit fly offspring, Morgan obtained a single, white-eyed mutant which he then began to breed. Morgan discovered that in one generation, only males were produced with white-eyes. With more genetic analysis, Morgan found the same factor which controlled eye-color was on the same chromosome that determined the sex of the fly.¹³⁵ Morgan’s experiment proves that study of inheritable characteristics is possible during this period despite Davenport’s assertions that analysis is hard to achieve.

At the conclusion of *The Hill Folk*, Davenport writes a summary in six points detailing the observations of the family lines and how they impacted the community around them. His first point concludes that inheritance of feble-mindedness and associated moral disturbances are complex and have a combination of quantitatively and qualitatively varying factors. It is, however, his second and third points that are of interest, particularly to the scientific community

¹³³ Danielson and Davenport, *The Hill Folk*, 1.

¹³⁴ Danielson and Davenport, *The Hill Folk*, 2-3.

¹³⁵ Thomas Hunt Morgan, “Sex Limited Inheritance in *Drosophila*,” *Science* 32, no. 812 (1910): 122. <https://www.jstor.org/stable/1635471>.

and to Harry Laughlin who would later fall back on that collection of data when communicating with House Representatives in 1915. Summary points two and three read:

“2. The value of out-marriage, or exogamy, as a means of attenuating defective strains is diminished by the action of social barriers and the natural preference of individuals, which induce marriages among like grades of mentality, in a foreign as well as native locality.

3. The amount of town aid which this one group of defective families requires decennially, has increased 400% in the last thirty years. In the same length of time its criminal bill has been \$10,763.43 for sixteen persons; and the bill for its thirty children who were supported by the State during the last twenty-three years is \$48,888.57. During the past sixty years this community has, it is estimated, cost the State and the people half a million dollars.”¹³⁶

These points display the increasingly important part in promoting eugenics. Davenport hoped by emphasizing the social and economic cost of the social defectives it would help promote eugenics, bringing it to the popular American culture. Over the next few decades, Davenport continued to build and emphasize the development of popular eugenics culture which he highlights when he writes in 1928, “In conclusion I may urge that the widespread existence of crime enforces the lessons of eugenics. We are breeding too many people with feeble inhibitions and without proper *social* instincts.”¹³⁷

Compared to *The Hill Folk*, Estabrooks work *The Nam Family* is a highly detailed account of a single-family tree, following the lineages of offspring from a single set of parents. It details the intermarriages between siblings, cousins of varying degrees of separation, marriages outside of the family line, and the undesirable traits passed on or brought into the family tree –

¹³⁶ Danielson and Davenport, *The Hill Folk*, 33-34.

¹³⁷ Charles B. Davenport, “Crime, Heredity and Environment,” *Journal of Heredity* 19, no. 7 (1928): 313.

namely that of alcoholism and lack of ambition leading to criminality.¹³⁸ The essence of *The Nam Family* was to show the pervasiveness of undesirable traits and the effect they have on the community around them like Dugdale had done with his study of the “Jukes.” By stating that the ancestors of the studied “Nams” were generally “industrious,” Davenport and Estabrook set the precedent that undesirable traits bred into the family by consanguineous marriage and unregulated outside relations reduced the family to one of weak inhibitions that contribute little to the community surrounding them.¹³⁹

Generally, in these studies, it is assumed that the individuals being observed were of European descent, and only when the ancestors of individuals were not of “acceptable” European heritages (i.e. Northwestern European descent except for Irish ancestry) were those ancestral roots discussed. At the turn of the century, a growing fear of ‘losing’ the American racial identity was pervasive among the white population. Madison Grant’s *The Passing of the Great Race* highlights the idea of American racial identity being lost in favor of new non-Nordic immigrants from Europe. This dilution of the original Nordic stock, which came over during the colonial period, was a threat to America as new immigrants from Europe, particularly from Southern and Eastern Europe, introduced lower quality traits to the population.¹⁴⁰ It was this fear that drove many wealthy families to invest in research into eugenics, looking to find evidence that would back up their thinking and actions. The investments into preserving and maintaining an appropriate white supremacy helped to formulate what is now known as scientific racism.

¹³⁸ Davenport and Estabrook, *The Nam Family*, 1-3.

¹³⁹ Davenport and Estabrook, *The Name Family*, 3.

¹⁴⁰ Madison Grant, *The Passing of the Great Race: Or, The Racial Basis of European History*, (New York: Charles Scribner’s Sons, 1921): 3-84.

<https://www.loc.gov/resource/gdcmassbookdig.passingofgreatra01gran/?st=gallery>.

Racial Hygiene

In the early years of hereditarian studies, science was often used as a justification for creating race-based social policies, becoming intertwined with Social Darwinism and developing into what is known as scientific racism.¹⁴¹ As an accepted part of the scientific community at the turn of the twentieth century, scientific racism led to a focus on racial hygiene in the eugenics movement. Racial hygiene was introduced by German eugenicist Alfred Ploetz in 1895 to discuss racial contamination by “lower races” with “higher races.”¹⁴² As a concept, it tied itself to medicine by claiming miscegenation (race-mixing) was a form of contamination that needed to be avoided. During a period where germ-theory and medicine focused so heavily on hygiene, the public took any potential threat to general health seriously, especially when proper hygiene maintenance could prevent it, which is why tying racial hygiene to medicine was beneficial.¹⁴³ Eugenists took the concept of hygiene, the practices conducive to good health and preventing disease, and began applying it to race as purity of breeding stock to maintain good health. To remove perceived medical issues caused by bad breeding between races, the racial hygiene movement was adopted by eugenicists to control the entry of unwanted traits and medical issues into the population. Early signs of this can be seen in Karl Pearson’s works when he claimed a war on race (this included Jewish people as they were considered a separate race) was justified by the concept of evolution.¹⁴⁴

Racial hygiene was tied to traditional notions of public health and eugenicists used heredity as the means of controlling the direction of the race. Michel Foucault called racial

¹⁴¹ Rutledge M. Dennis, “Social Darwinism, Scientific Racism, and the Metaphysics of Race,” *The Journal of Negro Education* 64, no. 3 (1995): 243-246.

¹⁴² John Glad, *Future Human Evolution: Eugenics in the Twenty-first Century* (Pennsylvania: Hermitage Publishers, 2007): 51-52.

¹⁴³ John Glad, *Future Human Evolution*, 8-10.

¹⁴⁴ Karl Pearson, *The function of science in the modern state* (Cambridge: Cambridge University Press, 1919): 15.

hygiene in relation to public health state racism in his observations of biopolitics and biopower in the 1950s as the control of race crossing and continued good public health became a primary focus of the state.¹⁴⁵ Davenport acknowledges the historical significance of population, inheritance, and public health, stating:

“To the biologist who has read history and who knows the conditions of the population of different countries it is perfectly plain that a people will be what its hereditary qualities determine. Hence, we must rejoice that our inheritance of blood was at the beginning so fine; that we have received so many additions from among the best Europeans. We may trust that the errors committed in the past in admitting diverse stocks may not be fatal in the outcome. We may expect the over broadening appreciation of hereditary quality to support henceforth the policy of limited and selected immigration.”¹⁴⁶

The modern era typically assigns scientific racism to people of color almost exclusively but during Davenport’s time, scientific racism also applied to European heritages as well. Those of Germanic, Frankish, and English heritage were held at the highest levels but those of southern and eastern European heritage were seen as lesser. It was also applied to religious ‘ethnic’ groups such as the Jewish and Romani communities. Laughlin’s work with Congress addresses this when it comes to creating immigration policies targeted at Eastern and Southern European migrants -- which will be discussed later.

In addition to the dilution of American breeding stock by immigrants, there was an economic side to immigration from non-Nordic countries. Leading economists of the era were

¹⁴⁵ Michel Foucault, *The Foucault Reader*, ed. Paul Rabinow, 1st ed. (New York: Pantheon Books, 1984): 270.

¹⁴⁶ Charles Davenport and Morris Steggerda, *Race Crossing in Jamaica* (Washington: Carnegie Institute of Washington, 1929): 4.

among the first to push for immigration restriction based on racial grounds, justifying race-based immigration restrictions on the grounds of preventing “racial suicide.”¹⁴⁷ Introduction of minimum wage laws in the United States was seen by economic eugenisists as a way of protecting worthy wage earners (native American citizens) from the “casual worker and the drifter,” as well as the “unemployable” who dragged down wage pay from more deserving workers.¹⁴⁸ Requiring minimum wage pay, there was a benefit of sorting unfit laborers out of the market, creating job openings for deserving workers.¹⁴⁹

To fully understand the implications of mixed-race marriages, Charles Davenport began searching for quantitative means of measuring the differences between races and how they applied to full-blood or mixed-race African Americans. To begin his studies, Davenport began outside of the United States in Jamaica. Davenport and his assistant Morris Steggerda traveled to Jamaica in 1928 to gather information of “biological and cultural degradation” to prove race-mixing as harmful to the continued success of the human species.¹⁵⁰ Publishing their results in 1929, *Race Crossing in Jamaica* claimed early in the book that the “standard races of mankind are rapidly disintegrating,” Davenport attempted to use genetics research on cross breeding to explain how trait distribution worked in relation to hybrids. It was this angle and misinterpretation of new genetics research that later drew ire from the scientific community.¹⁵¹

Davenport began his explanation of the general principles of genetic hybridization by stating, “Inheritable traits do not ordinarily permanently blend in their offspring but some of them tend to recur in their pristine purity in later generations.”¹⁵² Relying on segregation

¹⁴⁷ Thomas C. Leonard, “Eugenics and Economic in the Progressive Era,” *Journal of Economic Perspectives* 19, no. 4 (2005): 209.

¹⁴⁸ Leonard, “Eugenics and Economic in the Progressive Era,” 213.

¹⁴⁹ Leonard, “Eugenics and Economic in the Progressive Era,” 213-214.

¹⁵⁰ Davenport and Steggerda, *Race Crossing*, 2.

¹⁵¹ Davenport and Steggerda, *Race Crossing*, 2-3

¹⁵² Davenport and Steggerda, *Race Crossing*, 2.

principles indicated by Mendelian thought, Davenport believed that genetic segregation “is the more obvious and the more complete the simpler the genetic constitution of the trait in question.”¹⁵³ He also espouses the principle of heterosis in the first generation of mixed heritage in relation to plant hybrids, although he immediately follows up that assertion with claims of diminished efficiency of certain hybrid types.¹⁵⁴ The concept of diminished efficiency is what Davenport relies heavily on throughout the rest of the book, using it to demonstrate the ‘degeneration’ of races with further cross breeding of children.¹⁵⁵

Race Crossing in Jamaica was met with widespread criticism from the scientific community. Like his earlier works, the scientific community lamented the sample sizes used in Davenport's research, citing the conclusions drawn from the book couldn't be trusted because of it. Karl Pearson wrote a scathing review of the book writing, “The only thing that is apparent in the whole of this lengthy treatise is that the samples are too small and drawn from too heterogeneous a population to provide any trustworthy conclusions at all.”¹⁵⁶

Despite these criticisms, Davenport went on to continue studying racial trait differences back in the United States. In a correspondence with the Tuskegee Institute in 1933, Davenport sent a message to Miss Atkins requesting access for Morris Steggerda to at least 125 children ages 3 to 7 years old for the purpose of research. Steggerda, at this time, was attempting to complete a study on growth changes in children of different races from several different regions including children in Holland (now the Netherlands), Michigan, and Native American children from the Yucatan.¹⁵⁷ Steggerda, under Davenport's direction, was looking to measure as many

¹⁵³ Davenport and Steggerda, *Race Crossing*, 2.

¹⁵⁴ Davenport and Steggerda, *Race Crossing*, 3.

¹⁵⁵ Davenport and Steggerda, *Race Crossing*.

¹⁵⁶ Karl Pearson, “Races in Jamaica,” *Nature* 126 (1930): 429.

¹⁵⁷ Charles Davenport to Miss Atkins, Tuskegee Institute of Alabama, April 3, 1933. <https://diglib.amphilsoc.org/islandora/object/text%3A257107>.

children of “full negro blood” to be present and with as little clothing as possible “so as not to render the measuring inaccurate.”¹⁵⁸ To explain further why there was a need for such a study, Davenport writes, “With these three sets of measures, whites, Indians and negroes, we will have a very interesting comparison of the growth of representatives of the three principal human types.”¹⁵⁹

Over time, race played an increasingly important factor in both eugenics and in Davenport’s own research. Some of it was tied to the dilution of the American race from non-Nordic European immigrants. The fear of lowering the average breeding stock qualities was prevalent, enough so that it was seen in other fields of study such as economics. Miscegenation, either between different European whites or between whites and blacks, was a growing point of focus. Davenport’s own race-based studies display the scientific justifications used to encourage laws against further racial degradation to prevent “racial suicide.”

¹⁵⁸ Charles Davenport to Miss Atkins, Tuskegee Institute of Alabama, April 3, 1933.

¹⁵⁹ Charles Davenport to Miss Atkins, Tuskegee Institute of Alabama, April 3, 1933.

Chapter 3: Eugenics and U.S. Policies

Davenport, Laughlin, and College Education

Former schoolteacher Harry Laughlin reached out to Davenport not long after his placement at Cold Spring Harbor by the CIW. Initially acting as an editor for *Eugenical News* in 1910, Laughlin quickly worked his way into a managerial position at the newly established ERO.¹⁶⁰ Davenport placed him as the managing director at the ERO, overseeing numerous research projects being conducted as well as working with potential donors and interested private citizens. It was in this position that Laughlin co-wrote a play titled “Acquired or inherited? A eugenical comedy in four acts” with Florence Danielson and his wife, Pansy Laughlin, as a performance for field workers at the ERO. While he was a scientist, Laughlin’s primary role was aimed at public relations to bring eugenics into popular culture. This role became exceptionally important as eugenics began to lose its scientific legitimacy and relied on the public sphere to survive after the scientific community relabeled it a pseudoscience.

As managing director, Laughlin traveled around the United States and lectured to different groups and colleges. Using lists provided to Davenport through *Eugenical News* submissions of the universities and colleges teaching courses in eugenics or heredity, Laughlin targeted those institutions to lecture at, looking to increase support for the field. In 1912, there were 49 colleges and universities that had eugenics as part of their science curriculums. Most of the major universities with courses had at least one course on the subject, often attached to a biology course. Alfred University in New York had a course on eugenics attached to a theoretical

¹⁶⁰ Allen, “Eugenics and Modern Biology,” 315.

biology course.¹⁶¹ This indicates that while eugenics was certainly being studied, not all educational institutions considered it as a true experimental science. Harvard University, Davenport's alma mater, only had a partial course on the subject with its class, "Genetics and Eugenics" which aimed to study "the reproduction of animals, the origin of new races; the influence of heredity and of environment; applications to animal breeding and human society, lectures, reading and demonstrations."¹⁶² By 1919, Laughlin's lectures and advocacy had helped increase the number of courses being taught as a number of the universities he lectured at had a marked increase in clubs and courses on the subject. Around 135 colleges and universities were listed as having at least one course exclusively on eugenics or related material. In addition to that, many state universities and some private universities had begun teaching those same courses including University of North Carolina at Chapel Hill, the University of South Carolina, and Johns Hopkins University.¹⁶³

Land-Grant universities also had an impact on the spread of eugenics and heredity courses in the United States. Land-Grant universities played important roles in institutionalizing the science curriculum in the U.S. as many of them were funded through federal laws aimed at applying science to "boost manufacturing and to facilitate the industrialization of agriculture."¹⁶⁴ Using the scientific discoveries made about plant and animal breeding, policy makers hoped to address some of the early twentieth century social problems by increasing agricultural production to feed urban centers.¹⁶⁵ As Land-Grant universities were the heart of the world's largest

¹⁶¹ "Eugenics and Genetics in Colleges, Folder 1," 1913 1912. Davenport Papers. American Philosophical Society: 1-19. <https://diglib.amphilsoc.org/islandora/object/text:293353#page/1/mode/1up>.

¹⁶² "Eugenics and Genetics in Colleges, Folder 1," 1913 1912: 1.

¹⁶³ "Eugenics and Genetics in Colleges, Folder 6," 1919 1918. Mss.B.D27 - Charles B. Davenport Papers. American Philosophical Society: 1-46. <https://diglib.amphilsoc.org/islandora/object/text:293358>.

¹⁶⁴ Leland L. Glenna, Margret A. Gollnick and Stephen S. Jones, "Eugenic Opportunity Structures: Teaching Genetic Engineering at US Land-Grant Universities Since 1911," *Social Studies of Science* 37, no. 2 (2007): 282.

¹⁶⁵ Glenna, "Eugenic Opportunity Structures," 284.

scientific organization, promoting better breeding for agriculture as a means to fix social problems helped eugenics prosper in the United States collegiate system and in the public as most Land-Grant universities were “the people’s university.”¹⁶⁶ Eugenics thrived in the Land-Grant university system because it had grown out of the agricultural context for better breeding, applying the desire for better, heartier stocks in plants and animals to people by breeding out the traits deemed detrimental.

Marriage Laws

In 1913, Davenport began the process of drafting a proposed law that would limit marriage selection in states. His ERO Bulletin, *State laws limiting marriage selection examined in the light of eugenics*, was not a full model law like the one Laughlin would draft later for sterilization, but it was a series of guidelines that states should consider before allowing marriage to take place. Pulling information about the nature of mental and physical conditions, he argued that those with legally defined disabilities would have an inability to understand the nature of a contract. As an example, Davenport referred to a North Carolina law that voided any contract, including marriage, should either person be incapable of contracting at the time of signing.¹⁶⁷ As marriage is seen as a legal contract between two people, Davenport claimed any legal disability that would compromise an individual’s mental state should bar them from marriage, and consequently, bar them from forming a family and having children. He also referred to an unnamed law passed in Maine which ended marriage contracts as “No insane person, or idiot, or

¹⁶⁶ Glenna, “Eugenic Opportunity Structures,” 282-284.

¹⁶⁷ Charles B. Davenport, *State laws limiting marriage selection examined in the light of eugenics*, (Cold Spring Harbor: Carnegie Institute of Washington, 1913): 7.

person having a husband or wife living, is capable of contracting marriage, and such marriages are absolutely void.”¹⁶⁸

Using twelve case studies to illustrate his points, Davenport created a narrative that illustrated the effects of unregulated marriages. The twelve cases, which occurred between a mentally ill patient (of varying types) and a “normal,” produced around fifty children between them.¹⁶⁹ According to Davenport, with marriage laws in place, most of the fifty children produced would not have been born legitimately. While many children produced within those marriages had normal intelligence and behaviors, some of the children displayed undesirable traits like alcoholism and behavioral issues.¹⁷⁰ Some marriages also resulted in multiple miscarriages, stillbirths, or unhealthy children who died within a decade. In those cases, Davenport points out that issues of healthy children occurred most frequently in marriages of an “insane” to a “normal.”¹⁷¹

To combat the number of non-viable pregnancies and unhealthy children, Davenport believed the best hope for normal offspring would be to marry and reproduce with someone who had no issues of neuropathic illnesses in their ancestry. As they remind the reader, the worst cases of mental illness resulted from the marriage of two cousins sharing the same strain of issue.¹⁷² In order to avoid this, Davenport proposed two legislative restrictions, writing:

“First of all, no legislative restrictions as to marriage of imbecile, epileptic and insane persons have any great value. Socially dangerous imbeciles (including morons) should not be at large, in any case. They should be in custodial care throughout the reproductive period.

Legislation as a means of preventing their procreation is worse than

¹⁶⁸ Davenport, *State laws limiting marriage*, 7.

¹⁶⁹ Davenport, *State laws limiting marriage*, 9-10.

¹⁷⁰ Davenport, *State laws limiting marriage*, 9-10.

¹⁷¹ Davenport, *State laws limiting marriage*, 11.

¹⁷² Davenport, *State laws limiting marriage*, 11.

useless. Second, any legislation directed toward the insane and epileptic should take account of kinds and degrees. It is futile to legislate against the marriage of progressed cases of dementia precox or ‘constitutional inferiority’ or other types of youthful degeneration for the same reason as in the case of imbeciles. In all the lighter cases of the disorder the prohibition is, as pointed out above, of doubtful benefit.”¹⁷³

Davenport argues that cases of extreme mental illnesses should be removed from society for the period of reproduction to prevent children potentially being born with the same strain of illness as the parent. Of course, exceptions would be made on a case-by-case basis to determine whether an individual was fit to marry.

Davenport also discussed the issues of consanguineous marriages and wanted the states to address those issues with limits. Consanguineous marriages are marriages occurring between members of a blood family. By the early 1900s, consanguineous marriages between a parent and child, brother and sister, and sibling to sibling’s child had been banned for decades. Davenport argued that those marriages should continue to be banned, however, marriages between cousins of various degrees should be required to get a certificate from a State Eugenics Board.¹⁷⁴ Anything further removed than a second cousin would not need to be registered and given a certificate. This idea stems back to the idea of keeping the breeding stock pure and healthy in animal and plant breeding to get the best traits. However, by allowing some genetic variation to

¹⁷³ Davenport, *State laws limiting marriage*, 13.

¹⁷⁴ Davenport, *State laws limiting marriage*, 13.

enter the family tree before remarrying in, there was belief that it would remove the risk of genetic instability that was common in royal or other inbred bloodlines.¹⁷⁵

By recommendation, Davenport believed that each state should have its own State Board of Eugenics informed by eugenically trained doctors. The board was proposed to be entirely focused on controlling marriage mating's. Davenport proposed that the state should use three sets of officials to ensure correct enforcement: the State Eugenics Board, state employed physicians, and field workers who would go out and gather the appropriate biographical and ancestry information.¹⁷⁶ Those physicians would verify the medical information of couples looking to marry which would also include verifying information on ancestry and other biographical information.¹⁷⁷ With that information, the physician would be able to determine the suitability of marriage between the two individuals, and be responsible for issuing marriage licenses. There were several reasons that a marriage could be denied, race or family relation being part of the reasons. Ancestry linking back to mental illness or other issues of behavior (such as criminality) could result in the marriage being denied reducing reproduction rates of those characteristics.¹⁷⁸

State laws limiting marriage selection was a guideline that many states could use as they put their own marriage laws in place. While some forms of consanguineous marriages could take place, Davenport argued that laws between interracial couples (which included marriages between different types of white Europeans) should continue to be banned; however, there were exceptions that had to get a certificate from the State Board of Eugenics to marry. As Davenport concluded, "No person having one-half part or more Negro blood shall be permitted to take a

¹⁷⁵ See, for example, the standard advice from agricultural breeders in the textbook by Stephen L. Goodale, *The Principles of Breeding; or, Glimpses at the Physiological Laws Connected with the Reproduction of Domestic Animals*, Boston: A. Williams and Co., 1861.

¹⁷⁶ Davenport, *State laws limiting marriage*, 37.

¹⁷⁷ Davenport, *State laws limiting marriage*, 38.

¹⁷⁸ Davenport, *State laws limiting marriage*, 40.

white person as spouse. Any person having less than half-part, but not less than one-eighth part of Negro blood, shall not be given a license to marry a white person without a certificate from the State Eugenics Board.”¹⁷⁹ Several U.S. states had already banned interracial marriage during the 1800s, particularly before the outbreak of the American Civil War, but some states had made changes to those bans. By 1915, 28 states had banned interracial marriages with six other states including prohibitions on the practice in their constitutions. Madison Grant’s immensely popular book *The Passing of the Great Race* in 1916 compounded the same beliefs expressed by Davenport, claiming that racial mixing was a racial crime and would lead America toward “racial suicide” resulting in the disappearance of “white” civilization.¹⁸⁰

Several states began altering or adding to their marriage laws with consideration of eugenic and heredity research. For instance, North Carolina’s law voided all marriages between individuals closer than second cousin, but any marriage or relationship of that manner does occur, the punishment is up to five years in prison.¹⁸¹ Miscegenation was prohibited and/or voided if the marriage was between a white individual and an individual of “Crotoan Indian or Negro” descent to “the third generation,” a “Crotoan Indian or Negro,” or a “Crotoan Indian and a person of Negro descent to the third generation.”¹⁸² The provision of prohibiting marriage between “whites and person of Negro blood to the third generation” was also placed into the North Carolina State Constitution. Any marriage between an “insane, etc....” and another, either of whom were incapable of contracting at the time of marriage was also voided.¹⁸³

¹⁷⁹ Davenport, *State laws limiting marriage*, 36.

¹⁸⁰ Grant, *The passing of the great race*, 56.

¹⁸¹ Davenport, *State laws limiting marriage*, 51.

¹⁸² Davenport, *State laws limiting marriage*, 51.

¹⁸³ Davenport, *State laws limiting marriage*, 51-51.

The Racial Integrity Act 1924 was passed by Virginia to reinforce racial segregation in the state. This particular piece of legislation prohibited any form of interracial marriage by classifying a “white person” as someone with no trace of “any blood other than Caucasian.”¹⁸⁴ Despite the concern of other types of Europeans which was discussed by Davenport a decade before, this act did not prohibit the marriage between different types of “white” people, only between people of color and white individuals.¹⁸⁵ To accompany this act, there were provisions to ensure all children born in the Commonwealth of Virginia was given a birth certificate which also indicated their race for state record. This allowed the state to enforce public segregation areas by having state documents verifying a person’s race.¹⁸⁶

Immigration Policies

Upon taking his post at the ERO in 1910, Laughlin began corresponding with Republican Congressman Albert Johnson out of Washington’s third congressional district a few years before 1914. Missouri-born Johnson was a staunch supporter of immigration restriction in the United States before the outbreak of the First World War but upon his return from Europe in 1918, he further sought curbs on immigration.¹⁸⁷ Laughlin, having made a congressional connection, began providing information to Congress to pass immigration acts aimed at reducing migrants from geographically undesirable locations such as southern and eastern Europe.

¹⁸⁴ W.A. Plecker, “Virginia Health Bulletin: The New Virginia Law to Preserve Racial Integrity, 1924.” Virginia Health Bulletin, 1924, Document Bank of Virginia: 4.
<https://edu.lva.virginia.gov/dbva/files/original/669240b44aab927d12fa6b680d3e407f.pdf>.

¹⁸⁵ Plecker, “Virginia Health Bulletin,” 2-3.

¹⁸⁶ While interracial marriage was not federally illegal, state legislation as well as racial segregation made the practice taboo in most states but particularly in southern states. The Racial Integrity Act remained in place until 1967 when the Supreme Court overturned it as unconstitutional in *Loving v. Virginia* which forced states to overturn their own laws once precedent was set for interracial marriages to be legal.

¹⁸⁷ Kristofer Allerfeldt, “‘And We Got Here First’: Albert Johnson, National Origins and Self-Interest in the Immigration Debate of the 1920s,” *Journal of Contemporary History* 45, no. 1 (2010): 8-9.

The United States had already implemented one major immigration act in 1882 with the Chinese Exclusion Act at the insistence of white settlers in the western United States. The Chinese Exclusion Act was written under the guise of protecting jobs for white settlers; however, by 1915 there were calls for restricting immigration again to protect traditional American ancestry.¹⁸⁸ By traditional American ancestry, those calls were often referring to white Americans with European ancestry trying to maintain a white dominated population. With the addition of eugenics into popular American culture, rather than being focused on the color of one's skin, early immigration policies were aimed at intelligence scores.¹⁸⁹

The Immigration Act of 1917 passed by the 64th U.S. Congress, also known as the Literacy Act, imposed literacy tests to all people looking to immigrate to the United States. Originally vetoed by President Woodrow Wilson in 1916, Congress passed the Act with an overwhelming majority.¹⁹⁰ This test required all immigrants over the age of 16 to demonstrate they had basic reading comprehension abilities in any language by reading thirty to forty words in a row.¹⁹¹ Although the bill was targeted at illiterate migrants, the Literacy Act also created a consolidated list of other “undesirables” who were to be banned from entering the country. The consolidated list included: alcoholics, contract laborers, convicts, epileptics, “feble-minded persons,” “imbeciles,” “Insane persons,” and “persons being mentally or physically defective.”¹⁹² These restrictions fall into line with some of the research and opinions published by Davenport who wanted to restrict those who came in to the U.S. to only immigrants with desirable traits that

¹⁸⁸ National Archives, “Chinese Exclusion Act (1882),” September 8, 2021. <https://www.archives.gov/milestone-documents/chinese-exclusion-act>.

¹⁸⁹ United States, and United States Bureau of Immigration, *Immigration laws. Act of February 5, 1917; and acts approved; October 19, 1918; May 10, 1920; June 5, 1920; December 26, 1920, and May 19, 1921, as amended, and Act May 26, 1922. Rules of May 1, 1917*, (Washington, Govt. print. off, 1922): <https://www.loc.gov/item/22019016/>.

¹⁹⁰ United States Bureau of Immigration, *Immigration Laws Act of February 5, 1917*,

¹⁹¹ United States Bureau of Immigration, *Immigration Laws Act of February 5, 1917*,

¹⁹² United States Bureau of Immigration, *Immigration Laws Act of February 5, 1917*,

would produce productive members of society. Due to the new criteria provided, it allowed immigration officials the discretion over whom to include and exclude. The list immigration officials used included more than just mental disabilities, they included sociopolitical views such as anyone labelled as radical or anarchist. The labels were used as additional justification to prevent immigration of certain groups of people. This is especially true for the exclusion of Jewish immigrants to the United States during this period.

In addition to adding a literacy test, the Literacy Act also added on to the Chinese Exclusion Act barring all immigration from the Asia-Pacific “zone.”¹⁹³ The Asia-Pacific zone as defined by the Literacy Act excluded persons by longitudinal and latitudinal coordinates but overall extended from the Ural Mountains in Russia, across the Asian continent, and to most of the Polynesian islands.¹⁹⁴ The only country exceptions made from this ban were for the Philippines (an informal U.S. colony) and Japan. Although immigration was banned from these areas, professional occupations and their immediate families could be waived from the exclusion including government officials, ministers/religious teachers, physicians, lawyers, chemists, engineers, and more.¹⁹⁵

In the early 1920s, Laughlin was called to provide testimony before the House Committee on Immigration regarding the biological aspect of immigration. Using rehearsed material from his lectures, Laughlin argued on the public cost of immigrants as well as the hereditary racial qualities that influenced the rising number of “degenerate Americans.”¹⁹⁶ During his testimony to the House Committee, Laughlin used exact calculations and statistics, of

¹⁹³ United States Bureau of Immigration, *Immigration Laws Act of February 5, 1917*, 5-11.

¹⁹⁴ United States Bureau of Immigration, *Immigration Laws Act of February 5, 1917*, 45.

¹⁹⁵ United States Bureau of Immigration, *Immigration Laws Act of February 5, 1917*, 41.

¹⁹⁶ Randall Hanson and Desmond S King, “Eugenic Ideas, Political Interests, and Policy Variance: Immigration and Sterilization Policy in Britain and the U.S,” *World Politics* 53, no. 2 (2001): 248. <https://doi.org/10.1353/wp.2001.0003>.

which seem impressive but are too exact to be an accurate representation of the population, to garner a positive outcome. Laughlin relied on the confidence in his assertions about immigrant statistics and the insane to draw agreement. For example, when questioned about the “severe penalty” the U.S. deals with regarding immigrants and insanity rates, Laughlin replies with, “In the United States the foreign born show an incidence of insanity in the State and Federal hospitals 2.85 times greater than that shown by the whole population,” whom he goes on to claim are largely descended from older American stock.¹⁹⁷ These precise claims of factual statistical data created a sense of true scientific approaches to social problems of the period, enough so that House Committee chairman Albert Johnson found Laughlin’s data and charts to be “both biologically and statistically sound.”¹⁹⁸ Due to Laughlin’s testimony and quantitative data, Congress passed the Emergency Quota Act in response to the heavy influx of Southern and Eastern Europeans looking to escape the rise of fascism in Italy and the communist revolution in Russia.¹⁹⁹ The Emergency Quota Act was to be a temporary measure in restricting who could immigrate, but it played an important part in establishing two long-standing features of U.S. immigration: the numerical limits on immigration and the National Origins Formula.²⁰⁰ This act also acted as a stop-gap measure for the amended Immigration Act that Representative Albert Johnson and Senator David Reed were creating.

With the influx of southern and eastern Europeans, Laughlin’s congressional testimony was centered on the fiscal burden and the racial cost of immigration from those areas. According

¹⁹⁷ United States Congress House Committee on Immigration and Naturalization, *Analysis of America’s Modern Melting Pot: Hearings Before the Committee on Immigration and Naturalization, House of Representatives, Sixty-seventh Congress, third session. November 21, 1922. Serial 7-C. Statement of Harry H. Laughlin*, (Washington: Government Printing Office, 1923): 741.

¹⁹⁸ United States Congress House Committee on Immigration and Naturalization, *Analysis of America’s Modern Melting Pot*, 731.

¹⁹⁹ Allerfeldt, “And We Got Here First,” 25.

²⁰⁰ Allerfeldt, “And We Got Here First,” 25.

to Laughlin, using data collected by the ERO, non-Northern European immigrants were statistically more likely to be of “degenerate” breeding stock, more often requiring institutionalized care than native-born Americans. By introducing those immigrants to the population, Laughlin argued that the taxpayers and state would spend more money on caring for them than the state would earn back from “non-degenerate” immigrants.²⁰¹ The racial cost of immigration from non-Northern Europeans was the second part of Laughlin’s argument. As an already addressed public concern, the dilution of the national stock was a worry by many Americans and especially the upper classes of American society as seen by the number of high status individuals who provided funding for the ERO. Laughlin alluded to how biological degeneration would occur by the introduction of undesirable immigrants and allowing them to intermarry with natural-born American citizens.²⁰² Although Davenport had not published *Race Crossing in Jamaica* yet, the argument used by Laughlin in congress is echoed by Davenport’s research four years later. Laughlin also espoused the increased likelihood of cultural contamination that would result.²⁰³

While much of the Immigration Acts passed by Congress effect Asian-Pacific countries and non-Northern European countries, both Laughlin and Davenport continued to push against African immigration. Davenport claimed the introduction of “the negro” was to be the greatest tragedy of all in America. In a lecture on immigration in relation to the condition of the population, Davenport said, “And then came what some regards as the greatest tragedy of all the introduction into this white population of hundreds of thousands of the negroes from the banana zone of Africa. A race which many regard as lowest in the scale of intelligence and self-control

²⁰¹ Hanson and King, “Eugenic Ideas, Political Interests,” 249.

²⁰² Hanson and King, “Eugenic Ideas, Political Interests,” 249-250.

²⁰³ Hanson and King, “Eugenic Ideas, Political Interests,” 250.

of all the races of men, excepting perhaps the native Australians.”²⁰⁴ Both Davenport and Laughlin believed that immigration should continue in some respect but as representatives of U.S. citizens a “century hence” those immigrants from Europe would be welcome if they came from healthy families with good qualities.²⁰⁵

The increased push for more permanent immigration legislation led to the passing of the Immigration Act of 1924 (the Johnson-Reed Act). Developed as a federal act, the 1924 law was aimed at preserving “the ideal of U.S. homogeneity.”²⁰⁶ In other words, the Johnson-Reed Act was aimed at protecting the perceived idea of the traditional American from immigrants who would taint the American breeding stock. Laughlin’s testimony in front of Congress, along with his use of statistical data provided by Davenport and the ERO, helped garner enough support to pass the updated Immigration Act. The 1924 law further restricted the number of immigrants allowed into the United States per year from what the Literacy Act and the Emergency Quota Act had already done. In particular, the 1924 Immigration Act had a provision in it that barred entry to any alien “who by virtue of race or nationality was ineligible for citizenship.”²⁰⁷ This meant that individuals of Asian lineage, who were already ineligible for citizenship due to previously existing nationality laws, were banned from entering the United States. This created tension between Japan, who protested the laws, and the United States. U.S. Congress chose the preservation of the traditional American racial make-up over maintaining steady international relations with Japan as the Immigration Act remained in place until 1952.²⁰⁸ The longevity of

²⁰⁴ Charles B. Davenport, “Immigration in Relation to the Physical, Mental and Moral Condition of the Population,” Mss.B.D27 - Charles B. Davenport Papers, American Philosophical Society, 1. <https://diglib.amphilsoc.org/islandora/object/text:212710#page/1/mode/1up>.

²⁰⁵ Davenport, “Immigration in Relation,” 17-19.

²⁰⁶ Office of the Historian, *The Immigration Act of 1924 (The Johnson-Reed Act)*, <https://history.state.gov/milestones/1921-1936/immigration-act>.

²⁰⁷ Office of the Historian, *The Immigration Act of 1924*.

²⁰⁸ Office of the Historian, *The Immigration Act of 1924*.

such a law shows the continued influence of eugenical science in the popular arena despite the field being relegated out of the scientific community as a pseudoscience with no real basis of fact.

Model Sterilization Law

The concept of sterilization was not an original idea of Charles Davenport or Harry Laughlin. In America, it can be traced back to as early as the 1850s when physicians would coerce their patients with undesirable traits to agree to a procedure they knew little about.²⁰⁹ The effort was aimed at the nation's degenerates, trying to penalize them and prevent the reproduction of their undesirable traits. Gideon Lincecum, a physician from Texas, presented the argument for compulsory sterilization in 1849, another example of the early medical hereditarian roots of eugenic proposals and the ties to practical knowledge of animal breeding. Lincecum believed that selective breeding could improve humanity by preventing the undesirable citizens, classified as the lowest of the citizens, from reproduction.²¹⁰ While the concept of legislating compulsory sterilization did not catch on for another sixty years, doctors and physicians still carried on the practice, resulting in numerous reports of castration in men convicted of rape and violent assaults, prison inmates, and mental health hospital patients.²¹¹

Much of Davenport's early research made no mention of the involuntary sterilization of individuals, instead focusing on the hereditary nature of traits to secure funding from several sources. In fact, Davenport was an opponent of such measures, believing that many sterilization laws were being put into place based on inaccurate or incomplete scientific information. To

²⁰⁹ Largent, *Breeding Contempt*, 1.

²¹⁰ Largent, *Breeding Contempt*, 12.

²¹¹ Largent, *Breeding Contempt*, 12.

Davenport, there were several questions on heredity that needed to be answered before sterilization should be considered. He also believed that with the potential for vague law boundaries, children who were delayed in learning by a year or two would be sterilized before concrete evidence of any mental illness or disease could accurately be diagnosed.²¹² Instead, it was Harry Laughlin who supported the development and adoption of compulsory sterilization laws across the United States. Despite their differences in opinion on the matter, Davenport supported Laughlin's quest to help create legislation for involuntary sterilization though there is no real clear reason why.

Although Michigan was the first state to seriously consider it, Indiana passed the first compulsory sterilization law in the United States in 1907.²¹³ Legislators targeted state wards in mental health institutions, ordering administrators to hire at least two skilled surgeons to conduct sterilization procedures on inmates who were judged as having "no probability of improvement" in their mental and physical conditions.²¹⁴ Other states followed suit in developing their own form of eugenic sterilization statutes over the next decade, starting with Washington and California in 1909. The Indiana law was called into question by the Indiana State Supreme Court in *Williams v. Smith* after a lawsuit claiming constitutional violations was filed.²¹⁵ Within a few years of being enacted it was subsequently overturned as being a violation of the equal protection clause of the Fourteenth Amendment in May 1921.²¹⁶ The grounds for invalidation were the procedure inflicted a cruel and unusual punishment on state wards and denied the patient due process to appeal the case.

²¹² Largent, *Breeding Contempt*, 59.

²¹³ Largent, *Breeding Contempt*, 66-69.

²¹⁴ Largent, *Breeding Contempt*, 71.

²¹⁵ Harry H. Laughlin, *Eugenical Sterilization in the United States: A Report of the Psychopathic Laboratory of The Municipal Court of Chicago*, (Chicago: Municipal Court of Chicago, 1922): 6.

²¹⁶ Jennifer M. Page, "State-Sponsored Injustice: The Case of Eugenics Sterilization," *Social Theory and Practice* 45, no. 1 (2019): 87.

Upon the failure of Indiana's sterilization law, Laughlin took it upon himself to draft a model sterilization law with Davenport's help which was designed to overcome constitutional arguments that would emerge in states.²¹⁷ Published in 1922, *Eugenical Sterilization in the United States* discussed and analyzed, over 500 pages of text, all current legislation relating to sterilization in eighteen states across the U.S. and how the hereditary nature of mental defects and criminality related to the application of those laws.²¹⁸ Laughlin also presents analysis of the growing number of litigations in relation to several of the statutes occurring prior to 1 January 1922. While the first section of the book reviews the ongoing sterilization statutes and their issues, Laughlin spends a majority of the book focusing on how sterilization laws will benefit the state in terms of reducing the number of mentally ill patients and recurring criminals by removing them from the procreation pool.²¹⁹ Laughlin argued that sterilization, when done correctly without compromising the patient in any way, would lead to a reduced state ward population in the hospitals and prisons, thus reducing the funding needed for state run institutions. It is also in this section that Laughlin points to other instances where personal liberties are taken from individuals for the good of the community, citing mandatory vaccinations and the quarantining of individuals with highly contagious diseases.

It is the last three chapters of *Eugenical Sterilization* that made the most impact in the United States. Chapter 15, titled "Model Eugenical Sterilization Law," is a full text model law

²¹⁷ There is no real documentation on how Laughlin ended up working with the Psychopathic Laboratory of The Municipal Court of Chicago as far as I have been able to find. He may have sought them out on his own or was contacted by them to conduct research on the possibilities of state sterilization. Smaller court documents in Chicago may have some information which has not been digitized or recorded in an archive but at some point, in the late 1910s and early 1920s, Laughlin was contracted to work with the Municipal Court of Chicago and the Psychopathic Laboratory to investigate the potential effects of sterilization which he then used to write *Eugenical Sterilization*.

²¹⁸ Laughlin, *Eugenical Sterilization in the United States*, 1-502.

²¹⁹ Laughlin, *Eugenical Sterilization in the United States*, 1-502.

that any state could use as a template if they wished to enact a compulsory sterilization law.²²⁰

Laughlin writes, “The matter of segregating, sterilizing, or otherwise rendering non-reproductive the degenerate human strains in America is, in accordance with the spirit of our institutions, fundamentally a matter for each state to decide for itself.”²²¹ Although he does not discount the idea of having federal legislation in regards to sterilization, Laughlin felt that it would be more productive to have a specialized department in the Federal Government that worked in tandem with the state.

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Fig. 3.1 The Table of Contents for Laughlin's Model Sterilization Law in *Eugenical Sterilization in the United States* (1922).

²²⁰ Laughlin, *Eugenical Sterilization in the United States*, 445-452.

²²¹ Laughlin, *Eugenical Sterilization in the United States*, 451.

This was the better solution, according to Laughlin, as the Federal Government had control over immigration into the United States as well as had jurisdiction over the District of Columbia, Native American reservations, and other territories “which have not yet been admitted to statehood.”²²² The sixteenth chapter goes through each section of the model law and provides an explanation for why the sections were necessary. Laughlin explains the need for standardized language and definition usage to ensure no misunderstandings while also advising using terms which cover a wide range of groups. For example, he recommends the use of “social inadequacy” to cover a wide range of individuals who would, because of their genetic make-up, become wards of the state in some capacity.²²³ Laughlin relied heavily on the legal aspects in the model law as the science he was using was weak. To compensate for the weakness of eugenics science, Laughlin used a combination of medical definitions to sound more scientific.²²⁴

To round out the model law, Laughlin also includes a variety of sample forms for the state to use as templates once their law has passed. This was to partially ensure each state would have forms that could be easily moved between states should an inmate or patient be moved across state lines and partially to provide the state with forms that could prevent future litigation if proper procedure was followed.

²²² Laughlin, *Eugenical Sterilization in the United States*, 452.

²²³ Laughlin, *Eugenical Sterilization in the United States*, 455.

²²⁴ North Carolina’s sterilization law has a similar approach to Laughlin’s model when it comes to combining medical terms to cover a number of categories. House Bill 1013 (1933) does this right at the start in Section 2, “to have one of the operations described in Section 1 of this act performed upon any mentally diseased, feeble-minded or epileptic resident of the county...” (*N.C. General Session Laws of 1933*, Section 5, Chapter 224: 345. https://www.ncleg.gov/Files/Library/sessionlaws/1931-1940/pubs_publiclawsresolu1933.pdf). The collection of seemingly scientific distinctions for mental characteristics created an umbrella for the law to work under. Laughlin goes a step further than North Carolina when he connects medical issues like Huntington’s Chorea to completely unrelated issues like teenage delinquency.

Sterilization in Mental Health Institutions

Despite being published in 1922, it took another two years for any state to pass a bill using Laughlin's model sterilization law. Virginia was the first state to pass a sterilization law based on Laughlin's model law in 1924 which allowed the involuntary sterilization of mental health patients. Dr. Albert Priddy, in collaboration with the Virginia State Colony's chief administrator Aubrey Strode, lobbied law makers to draft the bill and see it through the state legislature. Priddy had conducted over one hundred involuntary sterilizations in Virginia during the 1910s but was forced to stop when a lawsuit from an angry husband of an involuntarily sterilized woman, as well as their daughter, challenged the legality of the practice.²²⁵ To avoid further litigation, Priddy and Strode worked in tandem to secure state support and guarantee of constitutionality for the procedure. Under the new Virginia law, sterilization could be considered if the case for a mentally deficient or epileptic patient was brought before the board of a state institution and approved to be the appropriate course of action. The cases that would be considered involved patients assumed to be "insane, idiotic, imbecile, feeble-minded, or epileptic, and by the laws of heredity is the probably potential parent of socially inadequate offspring likewise afflicted."²²⁶ These traits were defined in the same way Laughlin had defined them in his model law, relying on definitions that Davenport had helped to establish as categories of mental defectiveness which were disruptive to a healthy population a decade before.

The first patient to be sterilized under the new Virginia law was a young woman named Carrie Buck. Buck's adoptive family claimed her to be feeble-minded and upon the discovery of her being pregnant at the age of seventeen, turned her over to the state. State physicians

²²⁵ Randall Hansen and Desmond King, *Sterilized by the State: Eugenics, Race, and the Population Scare in Twentieth-Century North America*, (Cambridge: Cambridge University Press, 2013): 104.

²²⁶ Hansen and King, *Sterilized by the State*, 104.

confirmed her diagnosis of feeble-mindedness and after the birth of her daughter, the social worker assigned to her case escorted her to the State Colony for Epileptics and Feeble-minded and turned her over to Dr. Alfred Priddy.²²⁷ Priddy and other state officials made the choice to use Carrie Buck as a test case to check the constitutionality of the new law. Priddy labelled Buck as both feeble-minded and “morally delinquent” due to her pregnancy out of wedlock which qualified Buck for sterilization.²²⁸ Buck was also a great test case as her biological mother had also been deemed feeble-minded by the state and had been a patient in the State Colony for almost twenty years, and Carrie’s daughter was also presumed to be feeble-minded despite being seven months old at the time of the case being brought before the Circuit Court of Amherst County.²²⁹

The institutional leaders of the State Colony hired a lawyer to represent Buck’s interests and challenge the legality of the sterilization law by suing the superintendent of the State Colony, John Hendron Bell. Brought as a star witness for the Circuit Court case, Arthur Estabrook, the co-author of *The Nam Family* with Davenport, had trained under Davenport and Laughlin at the ERO as a field worker. As a field worker who held a doctorate degree from Johns Hopkins University, Estabrook was considered qualified to examine Carrie, her mother, and her daughter and conduct research into the family history by interviewing those who had interactions with the family. Compiling a report, Estabrook was called to testify how eugenicists conducted their analysis of inheritance and how the Buck family line fit into the law of heredity.²³⁰ Concluding that the Buck family fit the “three generation” pedigree analysis, Estabrook displayed evidence

²²⁷ Philip R. Reilly, “Eugenics and Involuntary Sterilization: 1907-2015,” *Annual Review of Genomics and Human Genetics* 16 (2015): 356.

²²⁸ Reilly, “Eugenics and Involuntary Sterilization,” 356.

²²⁹ Hansen and King, *Sterilized by the State*, 105.

²³⁰ Hansen and King, *Sterilized by the State*. 108.

compiled from multiple witnesses and observations to the further prove that Carrie was qualified to be sterilized. Irving Whitehead, Carrie's lawyer, did nothing to object to the witnesses called by the state, even though none of the teachers who testified about her feeble-mindedness knew her personally.

While Estabrook's testimony was damning, it was written testimony by Harry Laughlin that sealed the Circuit Court case. Laughlin upheld the idea of "three generations" being the threshold needed to show inheritance of undesirable traits. Strode also introduced numerous passages from Laughlin's *Eugenic Sterilization* which argued the legality of sterilization based on evidence of heredity. Circuit Judge Bennett Gordon sided with the sterilization recommendation resulting in a series of appeals to bring the case to the U.S. Supreme Court three years after the first lawsuit was filed.²³¹ Unfortunately for Carrie Buck, the case and appeals had been carefully designed to set precedent in favor sterilization of mentally ill and deficient patients. Priddy and Strode had arranged and developed the strategy of Carrie's case from the start to avoid further lawsuits against the institution. Her lawyer, Whitehead, was a former member of the State Colony board of directors and was a close friend of Strode. His cross-examinations were carefully conducted to reveal additional damaging information to sabotage the case against sterilization by purposefully asking questions which, upon being answered, made Buck's condition seem worse than it was.²³² In doing so, Whitehead ensured that Carrie Buck's mental and physical condition was seen by the courts as a textbook case of bad genetic breeding stock and therefore an open and shut case in favor of sterilization. By the time the case had reached the Supreme Court, the Justices voted overwhelmingly in favor of the

²³¹ Reilly, "Eugenics and Involuntary Sterilization," 356.

²³² Hansen and King, *Sterilized by the State*, 110.

constitutionality of the Virginia law in a, 8-1 ruling. Justice Oliver Wendell Holmes wrote in his opinion:

“We have seen more than once that the public welfare may call upon the best citizens for their lives. It would be strange if it could not call upon those who already sap the strength of the State for these lesser sacrifices, often not felt to be such by those concerned, in order to prevent our being swamped with incompetence. It is better for all the world, if instead of waiting to execute degenerate offspring for crime, or to let them starve for their imbecility, society can prevent those who are manifestly unfit from continuing their kind.”²³³

Having exhausted all appeals, Carrie Buck was sterilized later that year in 1927.

The success of Virginia’s sterilization laws which had been modeled on Laughlin’s work created a tidal wave of new sterilization laws in the United States. By 1930, nearly thirty states had sterilization laws and nearly as many had funded state programs aimed at sterilization of mental health hospital patients.²³⁴ The majority of the states which passed sterilization laws resided in the Mid-West and on the West Coast although a few states along the East Coast followed Virginia’s lead. In North Carolina, a state law was passed in 1929 that allowed mental health institutions to sterilize a mentally defective person without notice or hearing. The appeal coming out of the Forsyth County Superior Court in 1932 temporarily put a halt to sterilizations based on violations of the 14th Amendment and Article 1, Sec. 17 of the 1868 North Carolina Constitution.²³⁵ The case, *Brewer v. Valk et al.*, was initially ruled by Forsyth County Superior

²³³ Holmes, Oliver Wendell. *Buck v. Bell*, 274 U.S. 200 (1927), 274 U. S. Reports 200 (Supreme Court of the United States 1927).

²³⁴ Reilly, “Eugenics and Involuntary Sterilization,” 356.

²³⁵ *Brewer v. Valk et al.*, 204 N.C. 186, 167 South Eastern Reporter 638 (Supreme Court of North Carolina 1933): 638.

Court judge A. M. Stack in favor of Mary Brewer, the plaintiff, who had been judged by a lower court to be incompetent and had a legal guardian appointed to her. Her guardian, W. T. Wilson, also a defendant in the case, petitioned to have Brewer sterilized and was granted it. Dr. A. DeT. Valk was assigned to conduct the procedure but the civil court filing in 1932 prevented the operation from being conducted.²³⁶ Judge Stack argued that the *Buck v. Bell* case had ruled in favor of sterilization only due to comprehensive nature of the due process before the sterilization procedure was completed and in the case of Mary Brewer, the rights of the patient had been ignored before the ruling had been made. Valk's lawyers appealed Judge Stack's decision and in 1933, *Brewer v. Valk et al.* was heard before the North Carolina Supreme Court.²³⁷

The North Carolina Supreme Court upheld the decision of the lower court, declaring the North Carolina sterilization act to be in violation of the 14th Amendment and Article 1, Sec. 17 of the N.C. Constitution.²³⁸ Despite the State Supreme Court ruling the sterilization act to be unconstitutional, the N.C. General Assembly enacted House Bill 1013, removing constitutional objections of the law and forming the State Eugenics Board. By removing the constitutional objections section of Chapter 34 of the Public Laws of 1929, patients determined to be candidates for sterilization had no legal grounds to appeal the ruling. The framework which came out of the *Brewer v. Valk et al.* case and enactment of House Bill 1013 would remain in place for another thirty years.²³⁹

With the rise in sterilization laws following the success of *Buck v. Bell*, mental health institutions targeted women disproportionately compared to men as much of the female

²³⁶ Alfred L. Brophy and Elizabeth Troutman, "The Eugenics Movement in North Carolina." *North Carolina Law Review* 94, no. 6 (2016): 1933.

²³⁷ Brophy and Troutman, "The Eugenics Movement in North Carolina," 1920.

²³⁸ *Brewer v. Valk et al.*, 204 N.C. 186, 641.

²³⁹ Brophy and Troutman, "The Eugenics Movement in North Carolina," 1920-1921.

population in mental health institutions were there for lesser illnesses compared to the men and in disproportionately higher numbers. Women were often placed there due to mild forms of depression or anxiety resulting in abnormal behaviors that did not conform to social norms.²⁴⁰ In reference back to the work Davenport conducted in the 1910s surrounding the levels system of mental defectiveness, there was a gendered aspect to the levels where certain conditions often attributed solely to women (i.e. hysteria or melancholia) resulted in a higher number of females diagnosed as feeble-minded and thus a potential candidate for sterilization. The argument in favor of sterilizing female patients boiled down to the ability to reintegrate the female patients into society following the procedure without worry of children being produced. With mild forms of feeble-mindedness that did not impact the ability to live relatively normal at high rates in state mental hospitals, sterilizing women under such conditions would allow state mental hospitals to reduce the ward population and thus the maintenance cost of the hospital. Throughout the 1930s, the United States averaged more than 2,200 sterilizations annually and by 1945, more than six years after the ERO was defunded and reorganized, at least 60,000 Americans had been sterilized and more than half of them had been patients in state mental hospitals.²⁴¹ Many of those sterilizations were performed on women due to concerns of them being sexually active and likely to become pregnant upon release into society.²⁴²

²⁴⁰ Lynn Gamwell and Nancy Tomes, *Madness in America: Cultural and Medical Perceptions of Mental Illness before 1914* (Cornell University Press, 1995), 19.

²⁴¹ Robert Whitaker, *Mad in America: Bad Science, Bad Medicine, and the Enduring Mistreatment of the Mentally Ill*, (New York: Basic Books, 2001): 60.

²⁴² Reilly, "Eugenics and Involuntary Sterilization," 357.

Sterilization in Prisons

Early sterilization practices were primarily targeted at men in prison during the first two decades of the twentieth century, but that practice rapidly declined after the *Buck v. Bell* case in 1927. The use of castrations to sterilize a male goes back centuries before the 1900s and was used for a variety of different reasons from religious reasons to social practice. In nineteenth century America, castration and vasectomies became associated with criminal punishment along with hysterectomies and salpingectomies for women.²⁴³ Most of the United States prison population during the early decades of the twentieth century were men and in regards to racial statistics, African American men were the majority of the population, especially in Southern States.²⁴⁴ Although the male population was larger than the female population there was an increasing discrepancy in the ratio of women to men sterilized in the penal system. By the late 1930s, most states with sterilization laws were selecting two to three females for sterilization for every man that was subjected to a vasectomy in prison or in a mental hospital.²⁴⁵ In North Carolina, following the *Brewer v. Valk* decision and the introduction of House Bill 1013, the percentage of women being sterilized compared to men did not drop below 70% between 1934 and 1966 and reached a record high of 99.2% in 1964.²⁴⁶

As early as the 1850's the sterilization of male prisoners was believed to be a practical solution to prohibit and discourage different types of crimes and to prohibit criminal behavior from continuing through a family line. In places like Oregon or North Carolina, castrations were considered the best treatment for men who were convicted of sodomy, rape, or child

²⁴³ Whitaker, *Mad in America*, 58.

²⁴⁴ Dorothy Roberts, "4: Making Reproduction a Crime." In *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty* (New York: Vintage, 1999). <https://web-p-ebcsohost-com.prox.lib.ncsu.edu/ehost/ebookviewer/ebook/bmxlYmtfXzczNzA4MF9fQU41?sid=04bf610c-4cd1-4048-80ee-acf5c9158431@redis&vid=1&format=EK&lpid=np12&rid=0>.

²⁴⁵ Reilly, "Eugenics and Involuntary Sterilization," 356.

²⁴⁶ Brophy and Troutman, "The Eugenics Movement in North Carolina," 1954-1955.

molestation.²⁴⁷ By the early twentieth century, sterilization of men in prison took on another dimension when the three strikes rule became a more socially accepted philosophy. The three strikes rule stated that if a prisoner was a repeat offender, even in the case of a petty crime, the prisoner was considered to be unfit to reproduce. This built off Davenport's idea that criminality was heritable even though it was often tied to other issues such as alcoholism as discussed in *Heredity in Relation to Eugenics*.²⁴⁸ Davenport did not conduct any singular research on the heritability of criminality but the association of crime with moral deficiency was enough to connect it to research conducted about the inheritance of feebleminded. This, in combination with several preliminary studies on the reoccurrence of family names in county prisons, such as Dugdale's *The Jukes* and Estabrook and Davenport's *The Nam Family*, linked crime with heritability.²⁴⁹ The prison system took on the role of prohibiting certain strains of deviance in the United States much the same way that mental health hospitals did.

During the 1900s and 1910s, a disproportionate number of African American prisoners were sterilized for sexual deviancy in the United States. Following Indiana's 1907 compulsory sterilization law, several states began to sterilize prison inmates without a compulsory law on state books.²⁵⁰ Many of these sterilizations occurred in the prison systems in the midwestern and western sections of the United States. While there is no clear evidence of sterilizations in mental hospitals being connected to race before 1945, the same could not be said for prisons. Many states considered African Americans, the men in particular, to be a race of sexual perverts.²⁵¹ Laughlin himself used research conducted by Davenport and Steggerda to argue the apparent

²⁴⁷ Largent, *Breeding Contempt*, 21.

²⁴⁸ Davenport, *Heredity in Relation to Eugenics*, 84-85.

²⁴⁹ Hansen and King, *Sterilized by the State*, 50.

²⁵⁰ Largent, *Breeding Contempt*, 73.

²⁵¹ Largent, *Breeding Contempt*, 76.

faster sexual maturity of tropical natives and how it correlated with increased levels of promiscuity in chapter thirteen of *Eugenical Sterilization*.²⁵² This belief in the promiscuity of African Americans may be due to various social factors of the time, including Jim Crow laws, the identification and treatment of mentally ill African Americans, and other social constructs which created segregations of the population.²⁵³

The decline in prison sterilizations began with Laughlin's introduction of a model sterilization law in 1922 which covered all potential constitutional arguments that could be brought against it. By 1922, most states that had sterilization statutes were embroiled in constitutional lawsuits, mostly in relation to the treatment of the mentally ill but there were a few cases related to prison inmates. The federal court's ruling on *Buck v. Bell (1927)* set the precedent that states could involuntarily sterilize state wards if proper due diligence was completed by the prison. The state was required to have a eugenics board for review of all potential sterilization cases to ensure the inmate met the criteria for hereditary criminality.²⁵⁴

Even though states created eugenics boards for oversight based on Laughlin's model law, there was a serious discrepancy in the application of the laws within the prison population. For example, an individual could meet the three strikes penalty for felony convictions and be recommended for sterilization by prison doctors; however, another individual could have more than three strikes in a white-collar crime such as fraud and not be recommended for the same procedure. This was due to the perception that crimes judged as felonies were considered morally reprehensible and would be passed on through hereditary lines while white collar crimes

²⁵² Largent, *Breeding Contempt*, 76.

Laughlin, *Eugenical Sterilization in the United States*, 425.

²⁵³ Reilly, "Eugenics and Involuntary Sterilization," 357.

²⁵⁴ Jennifer M. Page, "State-Sponsored Injustice," 87.

were thought to be non-violent and capable of being rehabilitated.²⁵⁵ In the early works published by Davenport and the ERO, the heritability of morally reprehensible traits was claimed to be quite high. Davenport discussed it in some detail in *The Hill Folk* when investigating the criminal strains of one family and the promiscuity traits of another and it was that research Laughlin relied on when crafting the criminality definitions of his sterilization model law. To Laughlin, a criminal was “one (not insane, feeble-minded, or epileptic) whose instincts and inhibitions are so anti-social that, because of them, his or her conduct is disregarding of the laws of organized society.”²⁵⁶ The definition Laughlin sticks to throughout his model law consistently indicates the tendencies for violent and morally reprehensible crimes were inheritable and thus made them eligible for sterilization.

The continued sterilization of inmates began to face growing opposition following the ruling of *Buck v Bell*. The state of Oklahoma passed the Habitual Criminal Sterilization Act (HCSA) in 1931 and amended in 1935 to clarify due process protections. Although the state already had a sterilization law in place, the HCSA was introduced specifically to address prison inmates and the instances of a person convicted of three separate felonies “involving moral turpitude.”²⁵⁷ In 1935, Hubert Moore, an inmate convicted five times, was recommended for sterilization under the HCSA. When it became known to the general population of the prison that the petition had been approved, the prisoners rioted and staged an attempted mass escape.²⁵⁸

The second case that was approved using HCSA was in October 1936 against Jack T. Skinner, an individual with three prior convictions: one for stealing chickens, and two others for

²⁵⁵ Largent, *Breeding Contempt*, 68.

²⁵⁶ Laughlin, *Eugenical Sterilization in the United States*, 430.

²⁵⁷ Jackson, Robert, Harlan Fisk Stone, and William O. Douglas. *Skinner v. Oklahoma*, 316 U.S. 535 (1942)., 316 U.S. Reports 535 (Supreme Court of the United States 1942): 535.

²⁵⁸ Brophy and Troutman, “The Eugenics Movement in North Carolina,” 1874.

armed robbery. It was his fourth conviction, another felony charge, which resulted in his punishment being another prison sentence and sterilization to prevent any future offspring from inheriting his habitual criminal tendencies. His lawyers appealed the decision taking the case to the Oklahoma Supreme Court for violating the 14th Amendment. Despite the lawyers presenting evidence that there was a violation of due process by the prison doctor and state evaluators, the court upheld the decision 5-4.²⁵⁹ This close of a decision proved the contentious nature of Oklahoma's law within the court system, particularly when it came to whether or not an accused individual had a right to defend themselves and determine moral turpitude in court.

Skinner's lawyers appealed to the U.S. Supreme Court which heard the case in 1942 and ruled unanimously that the HCSA violated the Equal Protection Clause of the 14th amendment. The basis of this ruling stemmed from the fact that white collar criminals were not subject to the same penalty as other inmates based on the wording of the law.²⁶⁰ As Justice William Douglas wrote in his opinion, "A person who enters a chicken coop and steals chickens commits a felony (*id.* § 1719); and he may be sterilized if he is thrice convicted. If, however, he is a bailee of the property and fraudulently appropriates it, he is an embezzler. *Id.* § 1455... Thus, the nature of the two crimes is intrinsically the same and they are punishable in the same manner."²⁶¹ It was also Justice Douglas who pointed out the fallacy of Laughlin's model eugenics law in relation to how eugenics could possibly be the basis for inferring the legal distinction between the same two crimes committed in different manners. The technical legal distinction between the crimes

²⁵⁹ Skinner v. Oklahoma, 316 U.S. 535 (1942)., 535.

²⁶⁰ Victoria Nourse, *In Reckless Hands: Skinner v. Oklahoma and the Near-Triumph of American Eugenics*, (New York: Norton, 2008): 15-17.

²⁶¹ Skinner v. Oklahoma, 316 U.S. 535 (1942)., 539.

committed led to two different penalties which violated the Equal Protection Clause of the 14th Amendment.²⁶²

Chief Justice Harlan Stone and Justice Robert Jackson voted against the case not just because of the 14th Amendment, but because of an issue of due process at the time of conviction as not all opinions were heard regarding whether the crimes committed by the accused (both past and present) justified the sentence of sterilization. Stone argued that there was not enough valid research done on the inmate at the time before conviction to determine the heritability of criminal traits.

“Science has found and the law has recognized that there are certain types of mental deficiency associated with delinquency which are inheritable. But the State does not contend – nor can there be any pretense – that either common knowledge or experience, or scientific investigation, has given assurance that the criminal tendencies of any class of habitual offenders are universally or even generally inheritable.”²⁶³

Stone argues that there are “limits to the extent” a legislative majority can approve and conduct biological experiments on a minority, “even those who have been guilty of what the majority defines as crimes,” before the majority run the risk of violating personal and natural freedoms of an individual. The minority being discussed are inmates within the state penal system while the majority are the rest of the population. With the wording of the Oklahoma law, the unequal application of the punishments, and the lack of scientific evidence provided to the State proving the heritability of criminal intent, both Stone and Jackson ruled the HCSA unconstitutional.

²⁶² Skinner v. Oklahoma, 316 U.S. 535 (1942)., 542.

²⁶³ Skinner v. Oklahoma, 316 U.S. 535 (1942)., 545.

It was this decision by the U.S. Supreme Court which spelled the downfall of involuntary sterilizations, particularly in prisons. Facing the overturn of much of the precedents set by *Buck v. Bell* in 1927, many prisons stopped the use of sterilization as a penal punishment, though it did not stop entirely and continued for several decades after the 1942 ruling. Laughlin's model law arguments were being undone by genetic research which were increasingly showing race was not a true biological concept and many traits labeled as reasons for sterilizations were not actually heritable but rather dependent on the social and economic opportunities of the families: i.e. most people labelled feeble-minded were, in fact, not mentally deficient but rather lacked the resources for an education due to their economic class or the geographic region they lived. Davenport's statistical methods for gathering quantifiable data out of subjective traits were discarded in favor of newer experimental methods which relied on evidential proof from controlled experiments to gather quantitative data. The era of controlled experimentation was beginning and the first wave of American eugenics was coming to an end.

Conclusion

Throughout the course of the early twentieth century, eugenics was one of the most influential sciences in the United States. It was a science built off the new theory of evolution and the rising embrace of an ethos for sciences to solve social problems. The idea that humanity could be improved by controlling reproduction was an appealing notion, particularly in the case of removing traits deemed undesirable. Francis Galton created the foundation of eugenics in Britain, but it was Charles Davenport, who figured largely in turning eugenics into a powerhouse in the United States. With enough funding from both private donors and the Carnegie Institute of Washington, Davenport created the Eugenics Records Office and its propaganda efforts.

It was through the ERO that Davenport published highly influential research reports claiming evidence of the heritability of undesirable traits and suggesting ways to prevent these traits from entering the family line. It was Davenport's research that widened the definitions of mental deficiency and their supposed inheritance; and it was Davenport's research which continued to reinforce racial segregation by claiming mixed-raced degeneracy. Harry Laughlin, using the research conducted by Davenport and his scientists at the ERO, took eugenical ideology and campaigned for it to a broad audience, conforming eugenics enough to fit the majority social desires of the population to increase its popularity. With connections to U.S. Congress, Laughlin took suggested reforms by Davenport to influence the application of marriage laws in individual states. He also used the view cultivated by Davenport that immigrants from southern and eastern Europe would pose a risk to the "American race" to influence the adoption of immigration policies. Laughlin's largest impact, however, was the application of Davenport's research to justify the sterilization of state wards in mental health institutions and in prisons. While his testimony to the Immigration Committee was important for

preventing the perceived introduction of new sources of bad genetic stock to America, Laughlin's work at "cleaning" the traditional American stock of its ills left a large, uncomfortable stain on American history.

Despite his work at the forefront of new Mendelian genetics very early in the twentieth century, Davenport quickly fell behind the advances of his contemporary geneticists. As genetics grew as a discipline, especially in experimental and statistical rigor, Davenport's research was often criticized for simplistic findings within the complex subject of heritability.²⁶⁴ Only devout followers of his ideals or personal appeal regarded Davenport's continued research in eugenics after its labeling as a pseudoscience to be truly scientific. One of the major criticisms came from his continued research on only one class group - those under the poverty line as seen by his numerous research studies on rural American families.²⁶⁵ Perhaps the biggest critique of Davenport's work, as well as that of all eugenics research, was whether the concept of race was real. By the 1920s, genetics research had proven to be a rapidly growing field, but little evidence had been found to support the idea of race as a biological concept, nor a genetic basis for mental ability.²⁶⁶ As little evidence of race was being found, several prominent figures in the scientific community began to speak out against Davenport's work and eugenics in 1920 and later. This is why 1920 is a good hinge date that demarcates where science began to split away from eugenics in favor of research endeavors that provided concrete evidence for conclusions to be drawn.

Other criticisms lay with Davenport's researching abilities. Following a publication in 1908 titled *Inheritance in Canaries*, Davenport drew pointed criticism for conclusions regarding distinctive characteristics in canaries which he claimed to behave in a Mendelian fashion.²⁶⁷

²⁶⁴ Allen, "Eugenics and Modern Biology," 316.

²⁶⁵ Franz Boas, "Eugenics," *The Scientific Monthly* 3, no. 5 (1916): 474. <https://www.jstor.org/stable/6055>.

²⁶⁶ Allen, "Eugenics and Modern Biology," 314-315.

²⁶⁷ Largent, *Breeding Contempt*, 48.

Contemporary critics of the paper argued that the evidence and conclusions drawn were too quickly captured, resulting in inconsistent tables and no sound logic to back up the conclusions. A. Rudolf Galloway, a Scottish expert on canary breeding, responded to Davenport's paper in an article published in *Biometrika* concluding that when studying "Mendelian phenomena as occurring in fancy varieties that the most strict definition of the characters under examination be made, and that their nomenclature, and behaviour under varying conditions, be thoroughly understood."²⁶⁸ In this, Galloway points out that Davenport remained so focused on getting results that his experiment was flawed from the start and that it needed careful planning and patience to ensure the experiment was as untainted as possible.

Franz Boas became one of Davenport's most critical opponents. A German American anthropologist, Boas believed in both Darwinism and evolution but questioned applying it as a social construct as eugenics did.²⁶⁹ He did not believe in the superiority of one race over another and did not believe one nation should have control over another.²⁷⁰ Instead, Boas felt that many people easily got the impression the environment left a major impact on heredity. Boas wrote, "It is obvious that the more far reaching the environmental influences are that act upon successive generations, the more readily will a false impression of heredity be given."²⁷¹ In essence, while the environment does influence some parts of human heredity, environmental impacts on a family over several generations will often give the impression learned behaviors in response to the environment are hereditary.

²⁶⁸ A. Rudolf Galloway, "Canary Breeding: A partial analysis of records from 1891-1909" In *Biometrika*, edited by Karl Pearson, Vol. 7, (Cambridge, UK: Cambridge University Press, 1909): 32. <http://archive.org/details/biometrika719091910pear>.

²⁶⁹ Boas, "Eugenics," 471.

²⁷⁰ Boas, "Eugenics," 474.

²⁷¹ Boas, "Eugenics," 472.

Another major opponent of Davenport and Laughlin's research was Thomas Hunt Morgan, one of the leading geneticists in the United States during this period.²⁷² Although he had initially been on the Board of Scientific Directors at the ERO upon its establishment in 1910, Morgan left his position there before 1920.²⁷³ Criticizing Davenport's works, Morgan points out that despite the extensive pedigree charts created by Davenport and his teams, there was a lack of true understanding of the traits they claimed to be studying, relying on subjective observations over concrete scientific evidence genetics research would provide.²⁷⁴ Morgan wrote:

“It may properly be claimed that in studying the inheritance of a normal character that forms the other member of the contrasted pair. This statement, however, calls for an important reservation; for, all that we mean by such a contrast is that the “normal” is not the abnormal. We do not in reality know more than this.”²⁷⁵

As stated, “normal” versus “abnormal” only has the meaning to differentiate between a gene which appears normal compared to abnormal gene pairings. He followed up this assertion by stating that certain strains of mental disorders, under certain conditions might appear but “as long as neither the physiological background of insanity, or the external agents that are contributory, are known, its genetic relations must remain obscure.”²⁷⁶ Simply put, most of the genetical “traits” emphasized by eugenicists were not biologically determined traits at all but results of the social environment. Morgan believed that if the science appears to validate what the general

²⁷² Thomas Hunt Morgan would go on to win the Nobel Prize in 1933 for his work on chromosomes being carriers of genes. He won the award based on the experiments he had conducted two decades before on *Drosophila*, linking white-eyed traits in fruit flies with the chromosome which determined sex. He published about it in 1910 with his report “Sex Limited Inheritance in *Drosophila*.”

²⁷³ “Eugenics Record Office, Board of Scientific Directors and Functions,” 1910. Eugenics Archive. <http://www.eugenicsarchive.org/html/eugenics/static/images/971.html>.

²⁷⁴ Steven A. Farber, “U.S. Scientists’ Role in the Eugenics Movement (1907-1939): A Contemporary Biologist’s Perspective,” *Zebrafish* 5, no. 4 (December 2008): 245.

²⁷⁵ Thomas Hunt Morgan, *Evolution and Genetics* (Princeton: Princeton University Press, 1925): 180.

²⁷⁶ Morgan, *Evolution and Genetics*, 203.

population believes and accepts to be true, that same science must be held to a higher standard of scrutiny that other sciences would be. In the case of feeble-mindedness and criminality, that applies to how those traits could be inherited when Davenport and Laughlin have rarely given all factors the same consideration and weight.²⁷⁷

After the 1920s, the scientific community continued to move further away from eugenics as more information about the human condition was gained from genetics and related sciences. Findings in related sciences continued to erode at the foundation of eugenics until finally Herbert Spencer Jennings, another opponent of eugenics, was assigned to the ERO in 1933 by the CIW to review the works published by both Davenport and Laughlin in the 1930s. It was during his investigation that Jennings discovered falsified data and manipulated conclusions that were published under the direction of the ERO. Laughlin was discovered to have been heavily involved in the falsifying of data to benefit his work as liaison with the United States Congress.²⁷⁸ Jennings's findings resulted in the removal of Laughlin from the ERO, though it didn't affect his placement as a eugenics expert on immigration committees, as well as the convening of a review panel by the CIW in 1935.²⁷⁹ The CIW review panel concluded that the ERO research being produced at that time did not have scientific merit and thus removed all funding from the ERO in 1939.²⁸⁰ Charles Davenport's desire for quantitative data to prove eugenics right along with Harry Laughlin's desire to see eugenics applied to society ultimately

²⁷⁷ Morgan, *Evolution and Genetics*, 201.

²⁷⁸ Allen, "Eugenics and Modern Biology," 322.

²⁷⁹ Although Laughlin was removed from his role at the ERO, he moved on to continue his work at the Pioneer Fund. The Pioneer Fund founded in 1937 was a non-profit foundation aimed at "race-betterment." Wickliffe Preston Draper the *de facto* final authority on the fund, was an American political activist and a strict racial segregationist. The Pioneer Fund has been described by multiple historians as white supremacist in nature which seems to fall in line with the fact one of its early projects was to fund a Nazi propaganda film about the advantage and uses of eugenics. William H. Tucker wrote a book on the subject titled *The Funding of Scientific Racism: Wickliffe Draper and the Pioneer Fund* (2007) which is an excellent resource for learning more.

²⁸⁰ Farber, "U.S. Scientists' Role," 244.

failed in the long run. The historical lesson drawn from this is this: sciences that conform to social desires and direction are often sticky and they remain long after they have been discredited by the rest of the scientific community. The influence of eugenics lasting decades after the ERO was closed and the science discredited is proof of such a lesson. Eugenics left an indelible stain on early twentieth century American scientific studies and yet it still lingers in small ways in modern biological and genetic studies.

BIBLIOGRAPHY

- Acquired or Inherited? A Eugenic Comedy in Four Acts*. Play, Comedy, 1913.
<http://www.eugenicsarchive.org/html/eugenics/static/images/503.html>.
- Allen, Garland E. "Eugenics and Modern Biology: Critiques of Eugenics, 1910–1945." *Annals of Human Genetics* 75, no. 3 (2011): 314–25. <https://doi.org/10.1111/j.1469-1809.2011.00649.x>.
- Allerfeldt, Kristofer. "'And We Got Here First': Albert Johnson, National Origins and Self-Interest in the Immigration Debate of the 1920s." *Journal of Contemporary History* 45, no. 1 (January 1, 2010): 7–26. <https://doi.org/10.1177/0022009409348019>.
- Barkan, Elazar. "Race and The Social Sciences." In *The Cambridge History of Science*, edited by Theodore M. Porter and Dorothy Ross, 693–707. Cambridge: Cambridge University Press, 2003. https://www-cambridge-org.prox.lib.ncsu.edu/core/services/aop-cambridge-core/content/view/774D1CEE11E41D38C722905A47818E9A/9781139053556c41_p693-707_CBO.pdf/race-and-the-social-sciences.pdf.
- Bernier, François. "A New Division of the Earth." Translated by Janet L. Nelson. *History Workshop Journal* 51 (2001): 247–50.
- Bix, Amy Sue. "Experiences and Voices of Eugenics Field-Workers: 'Women's Work' in Biology." *Social Studies of Science* 27, no.4 (Aug. 1997): 625-668.
<https://www.jstor.org/stable/285560>.
- Boas, Franz. "Eugenics." *The Scientific Monthly* 3, no. 5 (1916): 471–78.
- Brewer v. Valk et al., 204 N.C. 186, 167 South Eastern Reporter 638 (Supreme Court of North Carolina 1933).

Brophy, Alfred L., and Elizabeth Troutman. "The Eugenics Movement in North Carolina." *North Carolina Law Review* 94, no. 6 (2016): 1871–1956.

Brunton, Deborah. *Medicine in Modern Britain 1780-1950*. London: Routledge, 2018.
<https://doi.org/10.4324/9780429488504>.

Bulmer, Michael. *Francis Galton: Pioneer of Heredity and Biometry*. Baltimore, UNITED STATES: Johns Hopkins University Press, 2003.
<http://ebookcentral.proquest.com/lib/ncsu/detail.action?docID=3318236>.

Cold Spring Harbor Laboratory Digital Archives. "Charles B. Davenport (1866-1944) Biography."
https://library.cshl.edu/sp/scientists/charles_davenport/davenport_biography.html

Danielson, Florence, and Charles B. Davenport. *The Hill Folk; Report on a Rural Community of Hereditary Defectives*. Eugenics Record Office. Memoir No.1. Cold Spring Harbor, Long Island, N.Y.: [Press of the New Era Printing Co.], 1912., 1912.
<https://catalog.lib.ncsu.edu/catalog/NCSU464578>.

Darwin, Charles. *The Annotated Origin: A Facsimile of the First Edition of On the Origin of Species*. Cambridge: Belknap Press of Harvard University Press, 2011.

Davenport, by Charles B. *State Laws Limiting Marriage Selection Examined in the Light of Eugenics*. Eugenics Record Office; Bulletin No. 9. Cold Spring Harbor [N.Y.]: Eugenics Record Office, 1913., 1913. <https://catalog.lib.ncsu.edu/catalog/UNCb9479633>.

Davenport, Charles B. "Alcoholism in a Rural Community of Defectives," 1912. Mss.B.D27 – Charles B. Davenport Papers. American Philosophical Society, Philadelphia.
<https://diglib.amphilsoc.org/islandora/object/text:273849/#page/1/mode/1up>.

- Davenport, Charles B. "Crime, Heredity and Environment." *Journal of Heredity* 19, no. 7 (July 1, 1928): 307–13. <https://doi.org/10.1093/oxfordjournals.jhered.a103006>.
- Davenport, Charles B. "Biological Experiment Station for Studying Evolution." In *Carnegie Institution of Washington Year Book No. 1: 1902* (Washington: Carnegie Institution of Washington, 1903): 280-282.
- Davenport, Charles B. *Heredity in Relation to Eugenics*. New York: H. Holt, 1911., 1911. <https://babel.hathitrust.org/cgi/pt?id=mdp.39015005793883&seq=15>.
- Davenport, Charles B. "Immigration in Relation to the Physical, Mental and Moral Condition of the Population." Mss.B.D27 – Charles B. Davenport Papers. American Philosophical Society. Accessed November 30, 2023. <https://diglib.amphilsoc.org/islandora/object/text:212710#page/1/mode/1up>.
- Davenport, Charles B. "Letter from Charles Davenport to Miss Atkins, Tuskegee Institute," 1933. Mss.B.D27 – Charles B. Davenport Papers. American Philosophical Society, Philadelphia. <https://diglib.amphilsoc.org/islandora/object/text:257107/>.
- Davenport, Charles B., and Morris Steggerda. *Race Crossing in Jamaica*. Carnegie Institution of Washington 395. Washington: Carnegie Institute of Washington, 1928. <https://diglib.amphilsoc.org/islandora/object/text%3A239295>.
- Dennis, Rutledge M. "Social Darwinism, Scientific Racism, and the Metaphysics of Race." *The Journal of Negro Education* 64, no. 3 (1995): 243-252. <https://doi.org/10.2307/2967206>.
- Estabrook, Arthur H., and Charles B. Davenport. *The Nam Family: A Study in Cacogenics*. Cold Spring Harbor, N.Y: Eugenics Record Office, 1912. <https://play.google.com/books/reader?id=Osk5AQAAMAAJ&pg=GBS.PA29&hl=en>.

- Eugenical News v.1-5 1916-20*. Vol. 1–5. Cold Spring Harbor, N.Y: Carnegie Institute of Washington, 1916. <https://babel.hathitrust.org/cgi/pt?id=mdp.39015076969768&seq=7>.
- “Eugenics and Genetics in Colleges, Folder 1,” 1913 1912. Series 1. Charles B. Davenport Papers. American Philosophical Society, Philadelphia.
<https://diglib.amphilsoc.org/islandora/object/text:293353#page/1/mode/1up>.
- “Eugenics and Genetics in Colleges, Folder 6,” 1919 1918. Mss.B.D27 – Charles B. Davenport Papers. American Philosophical Society, Philadelphia.
<https://diglib.amphilsoc.org/islandora/object/text:293358>.
- “Eugenics Record Office, Board of Scientific Directors and Functions,” 1910. The Harry H. Laughlin Papers. Truman State University, Kirksville, Missouri.
<http://www.eugenicsarchive.org/html/eugenics/static/images/971.html>.
- “Eugenics registry of the Race Betterment foundation, Battle Creek, MI,” 1917-1918. Msc77 – ERO, SerVI, Box 4: Race Betterment Foundation. American Philosophical Society, Philadelphia. <http://www.eugenicsarchive.org/html/eugenics/static/images/200.html>.
- Fancher, Raymond E. “Scientific Cousins: The Relationship between Charles Darwin and Francis Galton.” *American Psychologist*, Charles Darwin and Psychology, 1809–2009, 64, no. 2 (February 2009): 84–92. <https://doi.org/10.1037/a0013339>.
- Farber, Steven A. “U.S. Scientists’ Role in the Eugenics Movement (1907–1939): A Contemporary Biologist’s Perspective.” *Zebrafish* 5, no. 4 (December 2008): 243–45.
<https://doi.org/10.1089/zeb.2008.0576>.
- Foucault, Michel. *The Foucault Reader*. Edited by Paul Rabinow. 1st ed. New York: Pantheon Books, 1984.

Galloway, A. Rudolf. "Canary Breeding: A Partial Analysis of Records from 1891-1909." In *Biometrika*, edited by Karl Pearson, Vol. 7. Cambridge, 1909.

<http://archive.org/details/biometrika719091910pear>.

Galton, Francis. "Africa For the Chinese: To The Editor of The Times." *The Times*, June 5, 1873.

<https://galton.org/letters/84allik-for-chinese/AfricaForTheChinese.htm>.

Galton, Francis. *Hereditary Genius: An Inquiry into Its Laws and Consequences*. London: Macmillan and Co., 1869.

<https://hdl.handle.net/2027/hvd.32044022705321?urlappend=%3Bseq=9>.

Galton, Francis. "Hereditary Stature." *Nature* 33, no. 848 (January 1886): 295–98.

<https://doi.org/10.1038/033295c0>.

Galton, Francis. *Inquiries Into Human Faculty and Its Development*. London: Macmillan, 1883.

<http://archive.org/details/inquiriesintohu00galtgoog>.

Galton, Francis. *The Kallikak Family: A Study in the Heredity of Feeble-Mindedness*. New York: Macmillan, 1916.

https://www.google.com/books/edition/The_Kallikak_Family/PjUVAAAAIAAJ?hl=en&gbpv=1&dq=84allikak+family&printsec=frontcover.

Galton, Francis. *Natural Inheritance*. New York: Macmillan, 1889.

<https://digital.library.cornell.edu/catalog/chla2900607>.

Galton, Francis. "Regression Towards Mediocrity in Hereditary Stature." *The Journal of the Anthropological Institute of Great Britain and Ireland* 15 (1886): 246–63.

<https://doi.org/10.2307/2841583>.

Galton, Francis. "The Possible Improvement of The Human Breed Under the Existing Conditions of Law and Sentiment." *Nature* 64 (October 31, 1901): 659–65.

Galton, Francis. "Typical Laws of Heredity." *Nature* 15, no. 388 (April 1, 1877): 492–95.

<https://doi.org/10.1038/015492a0>.

Gamwell, Lynn, and Nancy Tomes. *Madness in America: Cultural and Medical Perceptions of Mental Illness before 1914*. Cornell: Cornell University Press, 1995.

Gayon, Jean. "From Mendel to Epigenetics: History of Genetics." *Comptes Rendus Biologies, Trajectories of genetics, 150 years after Mendel / Trajectoire de la génétique, 150 après Mendel* Guest Editors / Rédacteurs en chef invités : Bernard Dujon, Georges Pelletier, 339, no. 7 (July 1, 2016): 225–30. <https://doi.org/10.1016/j.crvi.2016.05.009>.

Gillham, Nicholas Wright. *A Life of Sir Francis Galton: From African Exploration to the Birth of Eugenics*. Oxford [England]: Oxford University Press, 2001.

<https://proxying.lib.ncsu.edu/index.php?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=151412&site=ehost-live&scope=site>.

Glad, John. *Future Human Evolution: Eugenics in the Twenty-first Century*. Pennsylvania: Hermitage Publishers, 2007.

https://www.google.com/books/edition/Future_Human_Evolution/Awvt84tr5y4C?hl=en&gbpv=1&printsec=frontcover.

Glenna, Leland L., Margret A. Gollnick and Stephen S. Jones. "Eugenic Opportunity Structures: Teaching Genetic Engineering at US Land-Grant Universities Since 1911." *Social Studies of Science* 37, no. 2 (2007): 281-296. <https://doi.org/10.1177/0306312706066177>.

Goddard, Henry Herbert. *Feeble-Mindedness: Its Causes and Consequences*. New York: Macmillan, 1914. <https://catalog.hathitrust.org/Record/000657418>.

- Gökyiğit, Emel Aileen. “The Reception of Francis Galton’s “Hereditary Genius” in the Victorian Periodical Press.” *Journal of the History of Biology* 27, No. 2 (1994): 215-240.
<https://www.jstor.org/stable/4331310>
- Goodale, Stephen L. *The Principles of Breeding: or Glimpses at the Physiological Laws Connected with the Reproduction of Domestic Animals*. Boston: A. Williams and Co., 1861.
- Grant, Madison. *The Passing of the Great Race: Or, The Racial Basis of European History*. 4th rev. ed. with a documentary supplement. New York: Charles Scribner’s Sons, 1921.
<https://www.loc.gov/resource/gdcmassbookdig.passingofgreatra01gran/?st=gallery>.
- Hansen, Randall, and Desmond King. *Sterilized by the State: Eugenics, Race, and the Population Scare in Twentieth-Century North America*. Cambridge: Cambridge University Press, 2013. <https://doi.org/10.1017/CBO9781139507554>.
- Hansen, Randall, and Desmond S King. “Eugenic Ideas, Political Interests, and Policy Variance: Immigration and Sterilization Policy in Britain and the U.S.” *World Politics* 53, no. 2 (2001): 237–63. <https://doi.org/10.1353/wp.2001.0003>.
- Hawkins, Mike. *Social Darwinism in European and American Thought, 1860-1945*. Cambridge: Cambridge University Press, 1997. <https://doi-org.prox.lib.ncsu.edu/10.1017/CBO9780511558481>.
- Hilton, Claire. *Civilian Lunatic Asylums During the First World War: A Study of Austerity on London’s Fringe*. Mental Health in Historical Perspective. Cham: Springer International Publishing, 2021. <https://doi.org/10.1007/978-3-030-54871-1>.
- Holmes, Oliver Wendell. *Buck v. Bell*, 274 U.S. 200 (1927), 274 U. S. Reports 200 (Supreme Court of the United States 1927).

Jackson, Robert, Harlan Fisk Stone, and William O. Douglas. *Skinner v. Oklahoma*, 316 U.S. 535 (1942)., 316 U.S. Reports 535 (Supreme Court of the United States 1942).

Keynes, Milo, ed. *Sir Francis Galton, FRS: The Legacy of His Ideas*. Studies in Biology, Economy, and Society. London: Houndmills, Basingstoke, Hampshire: Macmillan: in association with the Galton Institute, [1993], 1993.
<https://archive.org/details/sirfrancisgalton0000galt>.

Largent, Mark. *Breeding Contempt: The History of Coerced Sterilization in the United States*. New Brunswick, UNITED STATES: Rutgers University Press, 2007.
<http://ebookcentral.proquest.com/lib/ncsu/detail.action?docID=328686>.

Laughlin, Harry H. *Eugenical Sterilization in the United States: A Report of the Psychopathic Laboratory of The Municipal Court of Chicago*. Chicago: Municipal Court of Chicago, 1922.
https://www.google.com/books/edition/Eugenical_Sterilization_in_the_United_St/KuESAAAAYAAJ?hl=en&gbpv=1&dq=inauthor:+United+States.+Congress.+House.+Committee+on+Immigration+and+Naturalization&printsec=frontcover.

Laughlin, Harry H. *Report of the Committee to Study and to Report on the Best Practical Means of Cutting off the Defective Germ-Plasm in the American Population*. Cold Spring Harbor, NY, 1914. <https://dds-crl-edu.prox.lib.ncsu.edu/crldelivery/6616>.

Leonard, Thomas C. "Eugenics and Economic in the Progressive Era." *Journal of Economic Perspectives* 19, No. 4 (2005): 207-224.
<https://pubs.aeaweb.org/doi/pdfplus/10.1257/089533005775196642>.

Lunacy Act, 1890: 53. Vict. Ch. 5. (1890). <https://wellcomecollection.org/works/j87mjx7b/items>.

- MacDowell, E. Carleton. "Charles B. Davenport, 1866-1944: A Study of Conflicting Influences." *Bios* 17, no. 1 (1946): 2-50.
- McCrae, Niall, and Peter Nolan. *The Story of Nursing in British Mental Hospitals: Echoes from the Corridors*. London: Routledge, 2016. <https://doi.org/10.4324/9781315817026>.
- Michell, Joel. "'The Art of Imposing Measurement upon the Mind': Sir Francis Galton and the Genesis of the Psychometric Paradigm - Joel Michell, 2022." *Theory and Psychology* 32, no. 3 (June 2022): 375-400. <https://journals-sagepub-com.prox.lib.ncsu.edu/doi/full/10.1177/09593543211017671>.
- Morgan, Thomas Hunt. *Evolution and Genetics*. Princeton: Princeton University Press, 1925.
- Morgan, Thomas Hunt. "Sex Limited Inheritance in Drosophila." *Science* 32, no. 812 (1910): 120–22. <https://www.jstor.org/stable/1635471>.
- National Archives. "Chinese Exclusion Act (1882)," September 8, 2021. <https://www.archives.gov/milestone-documents/chinese-exclusion-act>.
- N.C. General Session Laws of 1933. Section 5, Chapter 224. 345-352. https://www.ncleg.gov/Files/Library/sessionlaws/1931-1940/pubs_publiclawsresolu1933.pdf
- Nourse, Victoria. *In Reckless Hands: Skinner v. Oklahoma and the Near-Triumph of American Eugenics*. New York: Norton, 2008.
- Office of the Historian. *The Immigration Act of 1924 (The Johnson-Reed Act)*. <https://history.state.gov/milestones/1921-1936/immigration-act>.
- Page, Jennifer M. "State-Sponsored Injustice: The Case of Eugenic Sterilization." *Social Theory and Practice* 45, no. 1 (2019): 75–101.

- Paul, Diane B. *Controlling Human Heredity: 1865 to the Present*. New York: Humanity Books, 1995.
- Paul, Diane B. “Reflections on the Historiography of American Eugenics: Trends, Fractures, Tensions.” *Journal of the History of Biology* 49, No. 4 (2016): 641-658.
<https://www.jstor.org/stable/44980464>.
- Pauly, Philip J. *Controlling life: Jacques Loeb and the engineering ideal in biology*. New York: Oxford University Press, 1987.
- Pearson, Karl. “Race Crossing in Jamaica.” *Nature* 126 (1930): 427–29.
<https://doi.org/10.1038/126427a0>.
- Pearson, Karl. *The Function of Science in the Modern State*. 2nd ed. Cambridge: Cambridge University Press, 1919. <https://wellcomecollection.org/works/nupkj2rm>.
- Pearson, Karl. *The Groundwork of Eugenics*. London, Dulau and Co., 1909.
<http://archive.org/details/groundworkofeuge1909pear>.
- Pearson, Karl. *The Life, Letters and Labours of Francis Galton*. Cambridge Eng.: University press, 1914. <https://catalog.hathitrust.org/Record/001473887>.
- Pearson, Karl, and Ethel M. Elderton, eds. *Annals of Eugenics: A Journal For the Scientific Study of Racial Problems*. Vol. 2. Cambridge: University Press, 1925.
<https://catalog.hathitrust.org/Record/009865530>.
- Plecker, W.A. “Virginia Health Bulletin: The New Virginia Law to Preserve Racial Integrity, 1924.” *Virginia Health Bulletin*, 1924. Document Bank of Virginia.
<https://edu.lva.virginia.gov/dbva/files/original/669240b44aab927d12fa6b680d3e407f.pdf>.
- Porter, Roy. *Madness: A Brief History*. Oxford University Press, 2002.

- Porter, Roy. *Mind-forg'd manacles: a history of madness in England from the Restoration to the Regency*. Cambridge: Harvard University Press, 1987.
- Porter, Theodore M. *The Rise of Statistical Thinking, 1820-1900*. Princeton: Princeton University Press, 1986.
- “Qualities Desired in a Eugenic Field Worker,” 1921. The Harry H. Laughlin Papers. Truman State University. <http://www.eugenicsarchive.org/html/eugenics/static/images/1101.html>.
- Rees, T. P. “Back to Moral Treatment and Community Care: The Presidential Address Delivered at the One Hundred and Fifteenth Annual Meeting Held at Warlingham Park Hospital, 18 July, 1956.” *Journal of Mental Science* 103, no. 431 (April 1957): 302–13. <https://doi.org/10.1192/bjp.103.431.303>.
- Reilly, Philip R. “Eugenics and Involuntary Sterilization: 1907 - 2015.” *Annual Review of Genomics and Human Genetics* 16 (August 2015): 351–68. <https://doi-org.prox.lib.ncsu.edu/10.1146/annurev-genom-090314-024930>.
- Riddle, Oscar. “Charles Benedict Davenport.” *Science* 99, no. 2579 (1944): 441–42.
- Riddle, Oscar. “Biographical Memoir of Charles Benedict Davenport, 1866-1944.” *National Academy of Sciences Biographical Memoirs* 25 (1947): 75-110.
- Roberts, Dorothy. “4: Making Reproduction a Crime.” In *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty*. New York: Vintage, 1999. <https://web-p-ebscohost-com.prox.lib.ncsu.edu/ehost/ebookviewer/ebook/bmxlYmtfXzczNzA4MF9fQU41?sid=04bf610c-4cd1-4048-80ee-acf5c9158431@redis&vid=1&format=EK&lpid=np12&rid=0>.

Roosevelt, Theodore. "Letter from Theodore Roosevelt to Charles B. Davenport," 1913.

Mss.B.D27 - Charles B. Davenport Papers. American Philosophical Society.

<https://diglib.amphilsoc.org/islandora/object/graphics%3A1487>.

The Second International Congress of Eugenics Logo (1921). Harry H. Laughlin, *The Second International Exhibition of Eugenics held September 22 to October 22, 1921, in connection with the Second International Congress of Eugenics in the American Museum of Natural History, New York* (1923).

https://commons.wikimedia.org/wiki/File:Eugenics_congress_logo.png#filelinks.

Thomson, Mathew. *The Problem of Mental Deficiency: Eugenics, Democracy, and Social Policy in Britain c.1870-1959*. Oxford Historical Monographs. New York: Oxford University Press, 1997. <https://catalog.lib.ncsu.edu/catalog/NCSU1002128>.

UCL Archives. "GALTON LABORATORY - Galton Laboratory Records," n.d.

<https://archives.ucl.ac.uk/CalmView/Record.aspx?src=CalmView.Catalog&id=GALTON+LABORATORY>.

United States Congress House Committee on Immigration and Naturalization. *Analysis of America's Modern Melting Pot: Hearings Before the Committee on Immigration and Naturalization, House of Representatives, Sixty-seventh Congress, third session. November 21, 1922. Serial 7-C. Statement of Harry H. Laughlin*. Washington: Government Printing Office, 1923.

<https://babel.hathitrust.org/cgi/pt?id=mdp.39015037355750&seq=10>.

United States Congress House Committee on Immigration and Naturalization. *Classification Standards to Be Followed in Preparing Data for the Schedule "Racial and Diagnostic*

Record of Inmates of State Institutions. Washington: Government Printing Office, 1922.
<https://play.google.com/books/reader?id=ww4XAAAAYAAJ&pg=GBS.PA2&hl=en>.

United States and United States Bureau of Immigration. *Immigration Laws. Act of February 5, 1917; and Acts Approved October 16, 1918; October 19, 1918; May 10, 1920; June 5, 1920; December 26, 1920, and May 19, 1921, as Amended, and Act May 26, 1922. Rules of May 1, 1917*. Washington: Government Printing Office, 1922.
<https://www.loc.gov/resource/gdclccn.22019016/?st=gallery>.

University of Missouri Libraries. “Charles Davenport’s Heredity in Relation to Eugenics · Controlling Heredity · Special Collections and Archives.” Accessed August 16, 2023.
<https://library.missouri.edu/specialcollections/exhibits/show/controlling-heredity/america/heredity>.

Waller, John C. “Gentlemanly Men of Science: Sir Francis Galton and the Professionalization of the British Life-Sciences.” *Journal of the History of Biology* 34, no. 1 (2001): 83–114.

Waller, John C. “‘The Illusion of an Explanation’: The Concept of Hereditary Disease, 1770-1870.” *Journal of the History of Medicine and Allied Sciences* 57, no. 4 (2002):410-448.

Warren, Earl. *Loving v. Virginia*, 388 U.S. 1 (1967), 388 U.S. Reports 78 (US. Supreme Court 1967).

Whitaker, Robert. *Mad in America: Bad Science, Bad Medicine, and the Enduring Mistreatment of the Mentally Ill*. New York, UNITED STATES: Basic Books, 2001.
<http://ebookcentral.proquest.com/lib/ncsu/detail.action?docID=515522>.

Zenderland, Leila. *Measuring Minds: Henry Herbert Goddard and the Origins of American Intelligence Testing*. New York: Cambridge University Press, 2001.