

FROM GALTON TO GLOBALIZATION:  
THE TRANSATLANTIC JOURNEY OF EUGENICS

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by  
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ABSTRACT

How did eugenics go from an idea in Britain to a movement in America? That was the question this dissertation originally set out to answer. Also, of interest was how the theory of eugenics went from the fringes to becoming mainstream. Who were the key figures in this transatlantic journey? How were the ideas transmitted and ultimately transformed? How did eugenics become one of the many fads of the 1920s? It was accepted not only as science, but popular science, science made for mass consumption by the public. Through the lens of four biographical essays, this dissertation traces the journey and transformation of eugenics by telling the stories of four men who helped create it, shape it, revolutionize it, and promote it.

What is most interesting is that all four of the men looked at in this study are known, among intellectual circles at least, but not namely for eugenics. One is known as an inventor, one is known as a statistician, one is known as a biologist, and the last is known as an economist. All four were essential to the history of eugenics. Perhaps the most important finding of by this research, however, is how eugenics does not necessarily have to be racist. This dissertation argues that racism is not inherent to eugenics, as it is often assumed to be. It is true that eugenics did go hand and hand with white supremacy, but the principle of race

is not fundamental to the theory of eugenics. What is, is the factor of socio-economics.

Racism can be separated from eugenics, but classism cannot be.

The faculty listed below, appointed by the Dean of the School of Graduate Studies, have examined a dissertation titled “From Galton to Globalization: The Transatlantic Journey of Eugenics,” presented by Anna T. Derrell, candidate for the Doctor of Philosophy degree, and certify that in their opinion it is worthy of acceptance.

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## CONTENTS

ABSTRACT .....	iii
LIST OF ILLUSTRATIONS.....	vii
INTRODUCTION .....	viii
Chapter	
1. “WELL-BORN”: THE LIFE OF SIR FRANCIS GALTON AND THE FOUNDING OF EUGENICS .....	1
2. “GOODNESS OF FIT”: THE LIFE OF KARL PEARSON AND EVOLUTION OF EUGENICS.....	27
3. “THE HIDDEN FIGURE”: THE LIFE OF CHARLES B. DAVENPORT AND TRANSATLANTIC JOURNEY OF EUGENICS.....	60
4. “TEACHERS AND PREACHERS”: THE LIFE OF IRVING FISHER AND MAINSTREAMING OF EUGENICS .....	97
5. CONCLUSIONS.....	131
BIBLIOGRAPHY.....	134
VITA.....	140

## ILLUSTRATIONS

Figure	Page
2.1 Standard portrait of Sir Francis Galton.....	43

## INTRODUCTION

The term “eugenics,” roughly translated to mean “well-born,” was coined by English aristocrat, inventor, and aspiring scientist Francis Galton in 1883, one year after the death of his well-known cousin, Charles Darwin. A mere forty years later, eugenics had developed from being a fringe theory in Britain to a normalized and applied popular science worldwide. This interdisciplinary dissertation will analyze how eugenics evolved simultaneously with medicine as a science and profession, gaining not just acceptance, but popularity. It will discuss the journey of eugenics from its birthplace in Britain in 1883 to America, where it first became an applied pseudo-science. I argue that the primary reason eugenics was able to evolve from an intellectual concept to an applied popular science by the 1920s was through the formation and legitimization of the discipline of science itself, especially in the fields of statistics and medicine.

The last American eugenics law was taken off the books in 1979, meaning that the overt social and racial policy of regulating human breeding has only recently entered the realm of history. As a historical problem, research has not to date been done on how eugenics became such a popular practice by the third decade of the twentieth century. This may in part be due to scholars describing eugenics as an extreme practice and not the accepted norm. An examination of the history, however, says otherwise. By the 1920s eugenics was a popular movement in both America and northern Europe. Some might label it as just a “fad” of the decade, and there is some evidence to support that.<sup>1</sup> Yet this begs the question of how eugenics became a matter of fashion and style. In my dissertation I want to examine the rise of eugenics. How did it go from a fringe theory to a mainstream one? By what avenues was it

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<sup>1</sup> Richard Hofstadter, *Social Darwinism in American Thought* (Boston: Beacon Press, 1944), 161.

normalized and popularized?

I argue that two things made eugenics as attractive as it was by the 1920s: science and media. Eugenics was a popular science, meaning that it was promoted as scientific and that is how it was legitimized, but it was also more accessible to the general public than science usually was. It was the subject of art, magazine articles, movies, and other forms of media that promoted it to people as a social good. It was also taught in medical schools (Galton, eugenics' founder, was originally trained in medicine) and became a popular theory among many academics in different fields including economics, statistics, social work, and political science. The link between eugenics and medicine has been explored in some works, but my dissertation will go further by analyzing the historical relationship of eugenics to the rise and popularization of social sciences.

This dissertation has four chapters. The first will focus on Sir Francis Galton and his work leading up to and following his coinage of the word “eugenics.” This chapter will give the historical context for when eugenics was founded and show how Galton originally sought to legitimize his theory. It will also examine whether Galton’s original concept of eugenics was actually the same as what it would become as an applied science and why that may or may not be. Key to understanding Galton is an understanding of the Victorian era and its principles, especially among the middle and upper classes, which Galton belonged to. My research will show that eugenics, as Galton originally designed it, was steeped in classism and Victorian beliefs of rigid hierarchies. Also critical to the development of Galton’s “eugenics” was an expedition he took to Africa, which is where the element of race will first come into play. Due to that crucial experience in Galton’s life, I will argue that even if he did not intend it to be as brutally racist as it would become, race was a principal factor in

eugenics. As we will see later though, eugenics does not have to be a racist theory.

The second chapter will focus on Galton's successor and arguably more influential developer of eugenics, Karl Pearson. The argument will be made in this chapter that Pearson's eugenics were harsher than Galton's original concept and it would be Pearson's vision that ultimately got applied. Pearson was almost obsessed with giving eugenics scientific authority and how he sought to do that will be discussed in the second chapter. Pearson was a complicated man, both personally and intellectually, and championing eugenics gave him something solid and, as he saw it, "clean" to focus his attention on. That issue of cleanliness, of physical and moral hygiene, would become a repetitious theme of the eugenics movement and while it is first articulated by Pearson, it too can be traced back to the same Victorian principles that Galton used in originally designing eugenics. It is also an issue of classism, because to the Victorian upper class, the lower classes were seen as intently unclean. Words such as "dirty," "filthy," "contaminated," and "tainted" were all used in association with the poor. Pearson would turn eugenics into a campaign to clean society and the only way to do that was to get rid of the poor.

The third chapter will keep with the theme of a focal point character, but it will see this dissertation make the journey across the Atlantic Ocean to America. The central figure will be American eugenicist Charles Davenport. I will examine Davenport's role in bringing eugenics to America and how and why he promoted it. Davenport was the top eugenicist in the United States, although he is rarely credited as such. He was instrumental in promoting eugenics not merely as an idea, but as an applied science. He would also prove a critical bridge between American and British eugenics. Davenport was an American original, but my research will show that he desperately wanted to make eugenics a global phenomenon. He

corresponded with intellectuals and scientists throughout Europe, including both Galton and Pearson. The former treated Davenport as an enthusiastic novice. The latter would come to be openly critical of Davenport and his international congresses calling them, “little more than excuses for holidays and tea-parties.”<sup>2</sup> Davenport was most enthusiastic about the future of eugenics in Germany, but understandably ran into obstacles following World War I. He worked tirelessly though to try and promote German eugenics. Although my dissertation will focus on Britain and America, it will be made clear that Davenport was America’s liaison to the world.

The fourth chapter focuses on another American, far more famous and, because of that fame, arguably more influential than Davenport. Irving Fisher is best known as an economist, one who rose to fame and fortune in the 1920s, only to lose it all come the stock market crash of 1929 and following Great Depression. What I will argue is that Fisher needs to be known for his role as a social reformer as well. He was a political Progressive and advocated many of their reforms. He was also a firm believer in and promoter of eugenics. Fisher starts as a student of Davenport but ends up exceeding his teacher in many ways. Fisher, like Pearson, was a statistician, obsessed with the “science” of eugenics. Fisher becomes the embodiment of American eugenics; self-righteous, aggressively confident, and absolutely above all criticism. Fisher also reveals the complicated relationship between eugenics, race, and class. Can eugenics exist without racism? I will argue that yes, it can in some rare instances. In the absence of race as a driving force, however, eugenics is still rooted in the prejudice of classism. Race and socioeconomics are the two driving factors of

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<sup>2</sup> Correspondence from Karl Pearson to Charles Davenport, 23 April 1928, B: D27, Box 79, Folder 1, Charles Davenport Papers, American Philosophical Society, Philadelphia, Pennsylvania, USA.

this analysis.

Each of these chapters could stand on their own as biographies of these four men and their work in eugenics. They are very much in conversation with one another though, especially as eugenics moves from a British idea to an American movement. This dissertation traces that journey, the evolution of a theory from the fringes to the mainstream.

## CHAPTER 1

### “WELL-BORN”: THE LIFE OF SIR FRANCIS GALTON AND THE FOUNDING OF EUGENICS

*All creatures would agree that it was better to be healthy than sick, vigorous than weak, well fitted than ill-fitted for their part of life. In short that it was better to be good rather than bad specimens of their kind, whatever that kind might be. ~Sir Francis Galton<sup>1</sup>*

In 1883, Sir Francis Galton, an independently wealthy British inventor and intellectual, coined the term “eugenics” for his theory of human heredity. He created the word by combining two Greek root words that when put together roughly translated into English to mean “good-born” or, more grammatically correct, “Well-born.” What eugenics became, as an applied science, is a matter of infamy. But what Galton originally theorized and advocated is not often discussed. It is assumed that the theory and practice are one and the same, however, this paper will seek to prove that this assumption is mistaken. Galton’s concept of the new science of “eugenics” was in fact, a far cry from what it would later become.

Many questions surround Galton’s theory of human heredity, which is the basis of eugenics. It is important to understand the historical context within which the theory emerged. It is at once a creation of its time and a radical departure from previous intellectual trends. This is because Galton’s theory appeared during a period that American philosopher of science, Thomas Kuhn, famously called a “paradigm shift” in his influential book, *The Structure of Scientific Revolutions*. Paradigm shifts occur when the widely accepted

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<sup>1</sup> Francis Galton, *Essays in Eugenics* (New York and London: Garland Publishing Inc., 1985), 36.

“normalized” science is challenged by new evidence suggesting a superior theory of knowledge. This causes a “scientific revolution” and dramatic change in the scientific landscape. In the case of Galton, the Darwinian revolution shaped his ideas on human heredity. Galton’s theory was a reaction to Darwinism, but was it supporting it as commonly thought or was it actually a rebuttal? To answer that question, we will also have to explore Galton’s intricate relationship with Charles Darwin himself. The two were not only contemporaries, but cousins, keenly aware of one another’s work and pursuits from a young age. Lastly there is the question of whether Galton ever intended eugenics to be a biological science or whether he envisioned it as a social science, a matter of policy rather than medicine as it became. In order to answer those questions, we will introduce and then get to know the man at the center of this research.

Before we get to Galton’s life and theories, however, we need to look at the works that have influenced this essay. There are a handful of biographies on Galton, including his autobiography and an official biography, written by his prized student, Karl Pearson. All of these works are informative and most of them mention eugenics in some capacity, but none of them do what this essay sets out to do. This essay will use biography as a framework to explore Galton’s developing theory. His life heavily influenced his work and one cannot be understood in the absence of the other. For a complete understanding of Galton’s theories you need to understand who Galton the man was and what his life experiences were. The other factor that makes this work different from other biographies of Galton (especially those that focus on eugenics such as Martin Brookes’ *Extreme Measures: the Dark Visions and Bright Ideas of Francis Galton*) is the focus on what Galton said in the context of the time he said it, rather than in historical hindsight. It is popular to look back on Galton’s theories

based on what eugenics would become as an applied science, which is something Galton had very little, if no part in. This essay assesses Galton's theories based on what Galton himself claimed were his intentions. We will see in this essay that Galton left a lot of room in his writings for others to interpret his work in any number of ways. He also did not protest when others, in his lifetime, took his ideas in directions that he himself did not go. Galton's silence in that area is potentially far more condemning of the man than what others did with his ideas.

Published in 1995 at the beginning of historical scholarship reflecting on eugenics, *Controlling Human Heredity: 1865 to the present*, Diana B. Paul argues very persuasively that in order to understand eugenics and what it really was, you must first place it in its proper historical context. The word "eugenics" was not coined by Galton until 1883, but he started writing about the idea of human heredity and how it might be controlled going back two decades previously. According to Paul, "Charles Darwin and Francis Galton were products of their time and class. Their work both reflected and reinforced the sense that civilization was under siege. Like most Victorian gentlemen, they were alarmed by the fecundity of the lower classes."<sup>2</sup> The two men may have both been spurred to action by the same social mentality and fears, but they were two very different men, who not surprisingly arrived at two very different conclusions. In the words of Paul, "Whereas Galton was assertive, caustic, openly antireligious, and zealous, his cousin [Darwin] was generally tolerant, patient, and loath to offend."<sup>3</sup> Issues of class are inherent to eugenics, as are issues of race, which Paul discusses and will be looked at more in this essay.

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<sup>2</sup> Diane B. Paul, *Controlling Human Heredity: 1865 to the present* (New Jersey: Humanities Press, 1995), 22.

<sup>3</sup> Paul, *Controlling Human Heredity*, 22.

One factor, which Paul captures in the title of her research, is control. It is not coincidental that eugenics started to form at the exact same historical moment that slavery was on the way out of the global stage. This left a whole group of people, once controlled by slavery, now free and able to actively shape their lives and worlds. That was threatening to many elites, like Galton. In his case, he might not have been as concerned about controlling former enslaved populations as he was concerned about controlling the poor, a fixation of the Victorian aristocracy. But regardless of who they were trying to exert control over, eugenics was appealing as a method of social control, especially as it was implemented. There are few things as controlling as deciding who can and cannot breed.

In his 2001 book, *Eugenics: A Reassessment*, Richard Lynn, British psychologist, argues that the basis of eugenics is sound and should not have been discredited, “In the history of science there is nothing particularly unusual in the rejection of a scientific theory. This has happened frequently as theories have come to be seen as incorrect and have been discarded. What is unusual is the rejection of a theory that is essentially correct.”<sup>4</sup> He goes on to say that there is a widespread misunderstanding as to what eugenics is and that is one of the reasons it was mistakenly rejected. According to Lynn, health, intelligence, and moral character are all to “a substantial extent genetically determined” and that eugenics is the method by way to strength and reinforce those traits within a population, making for a better society for everyone.<sup>5</sup> There has been heavy criticism of Lynn and his theories about eugenics, as well as IQ. The Southern Poverty Law Center (SPLC) identifies Lynn as a “white nationalist.”<sup>6</sup> And in 2018, Ulster University withdrew Lynn’s emeritus title from him

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<sup>4</sup> Richard Lynn, *Eugenics: A Reassessment* (Westport, CT: Praeger Publishers, 2001), vii.

<sup>5</sup> Ibidem.

<sup>6</sup> “Richard Lynn,” Southern Poverty Law Center, <https://www.splcenter.org/fighting-hate/extremist-files/individual/richard-lynn> (Accessed April 22, 2021).

in response to continued pressure and criticism of Lynn and his work, which is described as unscientific, biased, and discriminatory.<sup>7</sup>

Wendy Kline defines eugenics as an American crusade “to strengthen family and civilization by regulating fertility.”<sup>8</sup> In Kline’s opinion the race issue is part of what made eugenics so appealing, not just suppressing racial minorities, but producing a master race, “Eugenics elicited tremendous popular and professional support, I argue, because it linked two issues of great concern to the white middle class in early-twentieth century America: race and gender.”<sup>9</sup> Fertility, long seen as the domain of women, had to be regulated and controlled by male professionals who claimed to know what was better for women and their bodies than they did. In America eugenics came of age during a very socially tense time. It started making real progress during the Gilded Age, a time of politics and creating the social image of the nation. But where Kline focuses the start of her research, and rightfully so, is with the idea of the “new woman” and “new morality” that came out of the post-World War I years and was iconic in America of the 1920’s. She does not address the intellectual history behind eugenics, however, which is a factor with many histories on eugenics. Many works have been published on the subject, but few deal with where the idea came from or the man who is credited with founding it. That is the gap in the literature that this essay addresses.

You could say that Francis Galton himself was “Well-born.” He came from two families of property and prestige with his paternal line being successful merchants, and his maternal line full of noteworthy men of science and medicine. He was born February 16,

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<sup>7</sup> “Ulster University withdraws status from Prof Richard Lynn,” BBC News, April 14, 2018, <https://www.bbc.com/news/uk-northern-ireland-43768132> (Accessed April 22, 2021).

<sup>8</sup> Wendy Kline, *Building a Better Race: Gender, sexuality, and eugenics from the turn of the century to the Baby Boom* (Berkeley: University of California Press, 2001), 1.

<sup>9</sup> Kline, *Building a Better Race*, 2.

1822, on an estate, called *The Larches*, which “had some three acres of garden and field attached to it, with other fields beyond.”<sup>10</sup> In his memoirs Galton referred to his first home as “a paradise for my childhood.”<sup>11</sup> Galton wrote that he was the youngest of seven children, with four elder sisters and two older brothers.<sup>12</sup> But multiple sources report there were actually nine Galton children, two of whom died in infancy, which possibly explains why Galton made no mention of them.<sup>13</sup> His father, Samuel Tertius Galton (often referred to simply as Tertius Galton as there were many Samuels in the family), was a banker by trade and clearly had a good British sense of humor. Galton referred to his father remarking on the appropriateness of his grandfather’s estate being turned into a lunatic asylum by saying, “No one in his senses would live in it.”<sup>14</sup> The Galtons were a wealthy and upwardly socially mobile Quaker family who “became ever more successful with each new generation.”<sup>15</sup>

Galton’s mother, A. Violetta Darwin, was “a joyous and unconventional girl,” in her youth, and “the centre of our family... a most affectionate mother” later in life.<sup>16</sup> She stayed faithful for thirty years to the memory of her husband, Galton’s father. He died in his sixties, while she, comparatively, lived to be ninety-one; the two were born the same year.<sup>17</sup>

Violetta’s father, Dr. Erasmus Darwin, was so well-known and respected as a doctor that even King George III requested to be seen as his patient—and was declined on the grounds of the good doctor not desiring to leave his home in Derby.<sup>18</sup>

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<sup>10</sup> Francis Galton, *Memories of My Life* (London: Methuen & Co., 1908), 2.

<sup>11</sup> *Ibidem*.

<sup>12</sup> Galton, *Memories*, 13.

<sup>13</sup> Nicholas Wright Gillham, *A Life of Sir Francis Galton: From African Exploration to the Birth of Eugenics* (Oxford: Oxford University Press, 2001), 14; Karl Pearson, *The Life, Letters and Labours of Francis Galton* (Cambridge: Cambridge University Press, 1914), 63.

<sup>14</sup> Galton, *Memories*, 2.

<sup>15</sup> Gillham, *A Life*, 19.

<sup>16</sup> Galton, *Memories*, 10.

<sup>17</sup> *Ibidem*.

<sup>18</sup> Gillham, *A Life*, 14.

Galton's interest in human heredity might have started as early as his childhood, due to the fact that one of his sisters was born with a spinal deformity that kept her mostly bedridden.<sup>19</sup> He does not speak disparagingly of her, however, in spite of her physical handicap. To the contrary, he praises her as his first teacher, educating him in the Bible, the cultivation of memory, rudiments of Latin, and "above all a great deal of English verse."<sup>20</sup> Galton thanks his sister, whose first name was Millicent, although her family called her by her middle name Adèle, with giving him the foundation and recognition of being an "infant prodigy."<sup>21</sup> This is most interesting to note because the handicapped, both physically and mentally, would become targets of eugenics as an applied science. Nothing in Galton's writings about his handicapped sister suggests that he saw physical disability as being "undesirable" in society. Galton even acknowledged in an address to the Sociological Society in 1904 that what traits were deemed "desirable" differed not only from one civilization to another, but from person to person.<sup>22</sup> Eugenics, as he described it, was not meant to make all people uniform and the same, for, "Society would be very dull if every(one) resembled the highly estimable Marcus Aurelius or Adam Bede."<sup>23</sup> It was the task of eugenics, as Galton envisioned it, to create the best of all sorts of people. In theory, that would even mean the best handicapped. As he proposed the theory, it certainly would not be used to eliminate them from society.

Galton's mother wished him to pursue medicine as a career, as her father and half-brother had, and at the age of 16 he began his medical education first as a house pupil to

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<sup>19</sup> Galton, *Memories*, 13.

<sup>20</sup> *Ibidem*.

<sup>21</sup> *Ibidem*.

<sup>22</sup> Galton, *Essays*, 36.

<sup>23</sup> *Ibidem*.

Birmingham General Hospital's apprenticeship program and a year later moving on to King's College in London.<sup>24</sup> Though he showed technical skill and academic proficiency in the field, it did not fully engage his passions. What interested him from an early age was mathematics. In his autobiography, Galton wistfully reflected on how even before his college education, what he wanted to learn most was, "an abundance of good English reading, well-taught mathematics, and solid science."<sup>25</sup> Before starting his apprenticeship in medicine, Galton's father arranged for him to take a European tour to visit hospitals on the continent with an up-and-coming doctor, William Bowman. Bowman had distinguished himself as an apprentice at General Hospital and would later become renowned as a leading ophthalmic surgeon. From that trip Galton learned of a new life's passion -- travel. It was something that he would do a great deal of later in his life and how he first made a name for himself.

It is unclear why Galton transferred from King's College to Cambridge. He does not even write about the reasoning behind it in his autobiography, simply that he did it in 1840, at the age of 18. Galton biographer, Nicholas Gillham, theorizes that the move was made under the influence of Galton's cousin, Charles Darwin.<sup>26</sup> Galton and Darwin shared a grandfather in the esteemed Dr. Erasmus Darwin for Galton's mother, Violetta, was the paternal half-sister of Darwin's father, Robert. The two bonded over their shared love of science, which Galton would later come to believe was a hereditary trait. This is detailed in, *English Men of Science: Their Nature and Nurture*. It is important to note from that study that Galton did allow for influences in the environment to shape the characteristics of men. With that said, however, he also believed that some environments, most notably anything

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<sup>24</sup> Gillham, *A Life*, 27-30.

<sup>25</sup> Galton, *Memories*, 20.

<sup>26</sup> Gillham, *A Life*, 31.

English, were innately superior to others and would thus produce superior traits, such as the “scientific man.” Darwin was older than Galton and it has been suggested by many scholars that Galton looked up to Darwin as a mentor of sorts. If this is true, Galton himself was careful not to reveal his admiration. He does not mention Darwin anywhere in his autobiographical discussion of Cambridge. And it may be telling that in *English Men of Science*, Galton makes sure to note Alfred Wallace’s contribution to the discovery of evolution, making sure not to give all the credit to Darwin.<sup>27</sup> In this day and age Wallace’s work on evolution is often overlooked or forgotten, making Galton’s reference to it seemingly provocative. It should be stated, however, that Wallace’s research was far better known at the time Galton wrote *English Men of Science*, especially in the circles Galton himself frequented. While the mention may have been a minor jab at his cousin, Galton most likely made it in order to prove to his readers that he was indeed aware of Wallace’s research, which was as groundbreaking as Darwin’s within its own right. It may have also been an attempt by Galton to try and portray himself as an objective scientific observer, by not showing favor to his relative.

What is known for certain is that Galton’s move from King’s College to Cambridge changed the trajectory of his education from medicine to mathematics, at which he excelled. Cambridge University did not offer a medical degree, forcing Galton to switch fields. It also marks a potentially critical shift in how Galton would develop his later work. While he had not yet begun to publish on human heredity, switching from medicine to mathematics arguably changed Galton’s focus from a biological one to a statistical one. This is supported by the chronology of Galton’s own work. Riding on the coattails of Darwin’s research,

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<sup>27</sup> Francis Galton, *English Men of Science: Their Nature and Nurture* (London: Macmillan & Co., 1874), 7.

Galton originally tried to prove his theory of heredity using biology, but that method failed him, so instead the “proofs” Galton gives for his theory are statistical ones. The reliance on statistics, rather than biology, makes a compelling argument that Galton’s eugenics was not a theory of medicine, as it became applied, but rather a theory of social science, which can be used to guide policy, but is not biologically sound. What Galton argued for with eugenics should have been a matter of sociology or, to a lesser degree, psychology, not medicine. It is true that Galton did live long enough to see his theories start to be applied across the pond in the United States and he did not speak out against them being used for medical purposes. But it is hard to argue that it was his intent, based on the evidence provided by his writings. We will come back to this argument when analyzing Galton’s writings on heredity. But before he started theorizing on such matters, he did something else that greatly impacted the development of eugenics and that was to travel.

In October 1844, when Galton was only twenty-two years old and still fresh from his studies at Cambridge, his father, who had supported him in all ways, died. Galton recalled the event somberly in his autobiography saying, “The effect of his [Tertius Galton] death was to remove the main bond that kept our family together, and we soon became more or less separated.”<sup>28</sup> Karl Pearson, (1857-1936) influential British mathematician and biostatistician, and both a student of Galton and his official biographer, noted the monumental shift that occurred in Galton’s life with his father’s death: “We have no letters of these years to guide us; the letters to his father of course ceased; the letters to his mother and sisters have perished, and even the letters of his sisters to him, which would have given us clues to what Galton was thinking and doing...have been destroyed.”<sup>29</sup> While his father lived, Galton

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<sup>28</sup> Galton, *Memories*, 82.

<sup>29</sup> Pearson, *The Life*, 196.

remained in close contact through letters with him as well as his various sisters, whom Galton seemed far closer to than he did to his brothers, despite all his sisters being substantially older than him. This was a fact that Galton somewhat disparaged:

For though I joined my other two unmarried sisters in their social amusements, I was always treated by them and their companions as a boy, and I felt during this time like an only child with aunts. Their affection to me was deep, so was mine to them, but it was not and could not be reciprocated on equal terms.<sup>30</sup>

It is clear in this passage that Galton does not accept these women, his own sisters, as intellectual equals. He caricatures them as being frivolous and silly, compared to his maturity and seriousness. And while Galton does write in a different tone about his revered sisters Adèle and Emma, overall this dismissal of women as being inconsequential and unintelligent is a theme with Galton, adding a discrete but important element of sexism to his later theories. Galton's correspondence with his sisters diminished in the wake of their father's death as three of his four sisters were married within a year's time, ending much of their "social amusements." The one sister, who did not marry, Emma, stayed with their mother to care for her and would later in life become Galton's most "loving and beloved correspondent."<sup>31</sup> But at the time the loosening of familial bonds gave Galton a new sense of freedom. This combined with the handsome inheritance his father left him, fueled his wanderlust.

"I was therefore free," Galton regaled in looking back, "And I eagerly desired complete change..."<sup>32</sup> That change came in 1845 with a year aboard first to Egypt then on to the Middle East. After returning to England, Galton would take a hiatus for a couple of years, doing much of nothing from what anyone can tell. In his defense, Galton argued that he spent

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<sup>30</sup> Galton, *Memories*, 83.

<sup>31</sup> Galton, *Memories*, 84.

<sup>32</sup> Galton, *Memories*, 85.

the time most auspiciously, “I read a good deal all the time, and digested what I read by much thinking about it.”<sup>33</sup> Gillham, however, points out that Pearson objected to that claim, asserting, “Galton was never a great student of other men’s writings; he was never an accumulator like his cousin Charles Darwin; and the most well-read and annotated books in his library certainly belong to a later date and to periods of definite lines of research.”<sup>34</sup> <sup>35</sup> In his biography of Galton, Pearson goes so far as to call the period from 1844-1849 “the Fallow Years,” denoting its barrenness and lack of productivity.

All that changed in 1849 when Galton decided on an expedition to South Africa. In his memoirs Galton stresses the need for his “modern” readers to remember that things in 1849 were vastly different, “Travellers of the present generation need some effort of imagination to put themselves into the mental positions of those who were living in 1849.”<sup>36</sup> South Africa was still largely unexplored by Europeans in 1849 and proof of this is that Galton’s travels were eventually sponsored as an expedition by the *Royal Geographical Society*. He had been elected to membership of the RGS in 1850. Galton left England for Cape Town in April 1850, and would spend two years traveling Africa, mapping geography, and observing the weather. It was as an explorer and travel writer that Galton first came to fame. But this period of his life is important to eugenics because it is in Africa that Galton is first really exposed to people of different races and backgrounds. He became as interested in “mapping” and observing them as he was in geography.

Is race, and more importantly racism, an inherent feature of eugenics or was it something that, like the bias against the disabled, developed later on? Nowhere in Galton’s

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<sup>33</sup> Galton, *Memories*, 119.

<sup>34</sup> Gillham, *A Life*, 58.

<sup>35</sup> Pearson, *The Life*, 209.

<sup>36</sup> Galton, *Memories*, 121.

writing is there discrimination against the physically disabled, although that is not necessarily the case with the mentally disabled, for Galton did indeed target them as being undesirable. There are clear racial overtones to even his earliest writings on human heredity though --and they are not always the racial remarks you would expect. Take for instance this quotation from his 1869 book, *Hereditary Genius: An inquiry into its laws and consequences*:

I should have especially liked to investigate the biographies of Italians and Jews, both of whom appear to be rich in families of high intellectual breeds. Germany and America are also full of interest. It is a little less so with respect to France, where the Revolution and the guillotine made sad havoc among the progeny of her abler race.<sup>37</sup>

What is most notable about that quote, in regards to race, is the fact that Galton singles out Jews not as being inferior, but as being a race rich with “high intellectual breeds.” This, of course, runs completely opposite to how the Nazis, who would have the largest eugenics program in the world, saw things. Some scholars have argued that Galton was writing about English Jews and that is why he valued them, but he himself does not make that distinction. To the contrary, the context of that quote was Galton defending why he did not include non-British groups in his analysis, which would strongly suggest that he was not referencing English Jews. There is, however, another factor to be analyzed in this quote and that is one of classism. Galton was, without question, an elitist. And his rigid Victorian classist sensibilities are on display in that above quote. The “abler race” of France, according to Galton, were the elite, whom the impoverished, dirty, lower classes killed off in the French Revolution. The tension between the wealthy elite, like Galton, and the lower classes who would be particularly targeted by eugenics is shown here to be foundational to the theory.

But that does not mean Galton was color-blind nor did not have any notion of white

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<sup>37</sup> Francis Galton, *Hereditary Genius: An inquiry into its laws and consequences* (London: Macmillan & Co., 1869), 4.

supremacy. He makes it a point in his autobiography to write gruesomely about “the horrors of savagedom” he witnessed while in Africa.<sup>38</sup> On the occasion when he found an outstanding African to be “gentlemanly”—which note only means “like” a gentleman, not an actual one, he quickly followed his praise by noting how those individuals were killed in Africa by the typical black “savage.”<sup>39</sup> Only the presence of a real white gentleman, such as himself, could protect them. But if that were not evidence enough of Galton’s racial views, then take this quote from *Hereditary Genius*, “...a result which again points to the conclusion, that the average intellectual standard of the Negro race is some two grades below our own.”<sup>40</sup> Clearly and by his own admission, Galton believed that whites, particular Anglo-Saxon British stock, were superior to blacks, both in Africa and in the Americas. He does admit that African Americans have environmental disadvantages that make comparing them to whites difficult, but that does not stop him from classifying them as inferior with the very next breath.<sup>41</sup> In fact, rather than saying that the environment may skew the results negatively against African Americans, he argues the opposite, claiming that if environmental factors were negated and more data available, it would likely prove that African Americans were even more lacking in intelligence than whites.<sup>42</sup>

Some will likely say that Galton was merely a product of his time and that all whites at this time were racist to some degree or another. That glosses over the fact that while a majority of whites at the time did believe in white supremacy, most of them were not publishing books making pseudo-scientific arguments to rationalize and codify their racism,

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<sup>38</sup> Galton, *Memories*, 141.

<sup>39</sup> *Ibidem*.

<sup>40</sup> Galton, *Hereditary Genius*, 338.

<sup>41</sup> *Ibidem*.

<sup>42</sup> *Ibidem*.

which is exactly what Galton does from the beginning. *Hereditary Genius* is published well-over a decade before Galton coins the word “eugenics,” but right there from the start is built in the idea that Anglo-Saxon whites are the superior race, which all other races should be measured against. He may concede that there are other “races,” as he perceived them, in which “high intellectual breeds” existed, but even had he bothered to explore them it certainly would have been in comparison to what he deemed the gold standard.

But what did Galton really mean by “race”? He never solidly defines the term and he uses it in different ways. In *Hereditary Genius* he talks about the different “races” and their capacities and seems to use the word race in a way that would be easily identifiable to people today. But if one looks closer, there are discrepancies. Going back to the example of “the Jews;” Judaism is a religion, not a race. That is how Galton identifies them, however, as if all Jews, regardless of nationality, are one “race.” Decades later Galton would write, “Eugenics is the science which deals with all influences that improve the inborn qualities of a race; also with those that develop them to the utmost advantage.”<sup>43</sup> He uses the word “race” again, but if this quote is taken into context he means it to represent all of mankind, the “human race.” This is a very different understanding of race than what we see in *Hereditary Genius* and it complicates the matter of Galton’s eugenics. It can be interpreted as Galton saying that every “race” should strive to be the best they can or that there is really only one race and thus there is one ideal. He expressly rejects the latter notion in the continuation of the quote from *Essays* that opens this research, but his confusing use of the word “race” leaves open more questions than it answers.

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<sup>43</sup> Francis Galton, “Eugenics: Its Definition, Scope, and Aims,” *The American Journal of Sociology* vol. X, no. 1 (1904): <http://galton.org/essays/1900-1911/galton-1904-am-journ-soc-eugenics-scope-aims.htm> (Accessed November 22, 2017)

There is no way around it. Eugenics is an innately racist concept, because its foundational assumption is that white Anglo-Saxons were the most intellectually capable and in possession of the most desirable of all traits. It is a concept of white supremacy, but not a violent one. Nowhere, before or after the invention of “eugenics,” does Galton advocate for the elimination of African Americans or any other group. That makes this a good place to mention that there are two forms of eugenics, positive and negative. Positive eugenics is encouraging individuals with desirable traits to breed. Negative eugenics is preventing those with undesirable traits from breeding. What Galton overwhelmingly advocated was positive eugenics. What does that mean? It means that he advocated selective breeding, rather than forced sterilization, or even worse, genocide and ethnic cleansing.

It is true that Galton did support one aspect of negative eugenics, marriage restrictions. Galton argued that eugenic marriages were no different, in essence, than long held traditions of endogamy, or the custom of marrying exclusively within one’s own tribe or caste.<sup>44</sup> Compared to the alternative, exogamy, which Galton refers to as “usually in force amongst small and barbarous communities,” he believed that endogamy set a precedent for eugenic marriages.<sup>45</sup> Galton wrote in his autobiography:

I protest against the opinions of those sentimental people who think that marriage concerns only the two principals; it has in reality the wider effect of an alliance between them and a new family. Moreover, the interests of the unborn should be taken far more seriously into account than they are now. Enough is already known of the laws of heredity to make it certain that the marriage of one class of persons will lead on the whole to good results, and that of another class to evil ones, however doubtful the result may be in particular cases.<sup>46</sup>

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<sup>44</sup> Galton, *Essays*, 47.

<sup>45</sup> Galton, *Essays*, 49.

<sup>46</sup> Galton, *Memories*, 158.

The way Galton envisioned eugenics as a means by which every individual in society would be classified based on the quality of their traits. Marriage should then occur between those of the same classification, with those of the higher tier being encouraged to breed more than those in the lower tiers. Eugenics then would have been a social and public health project, based on statistical information, unlike anything before its time. Galton's vision would have required generally laissez-faire governments to become active and engaged in managing the reproduction of their populations. Interestingly, this call to action was taken up, vigorously in some cases, in the United States, but never caught on as a matter of policy in Britain. Eugenics was practiced in Britain, but not to the extent it was in the United States. Also in Britain there seemed to be more of an interest in eugenics as a social science than as a medical theory and practice, as it was applied in the United States. Overwhelmingly, however, negative forms of eugenics developed rather than the positive forms that Galton had advocated for.

Galton left Africa with a definite sense that he and his fellow Englishmen were superior to all the people, including white South Africans of non-British descent, which he met along his journey. Upon returning to England, after a brief detour to go cruising on a yacht up in Norway, Galton married. He claims it was a happy union and it lasted over four decades, but produced no living children. And as we know from Galton's neglect to account for his two siblings who died in infancy, he would not have found it worthwhile to mention any children who were miscarried, stillborn, or died in infancy. In both instances, it would also have been seen as a private matter. No other sources though say anything about children either though. In fact Gillham suggests that the barrenness of Galton's marriage likely weighed heavily on him, "especially as he began thinking about improving mankind through

selective breeding.”<sup>47</sup> At roughly the same time as his marriage Galton reunited with his cousin, Charles Darwin, who sent him an eager letter, which Pearson included in the official biography:

Dear Galton,

You will probably be surprised, after the long intermission of our acquaintance, at receiving a note from me; but I last night finished your volume with such lively interest, that I cannot resist the temptation of expressing my admiration at your expedition, and at the capital account you have published of it.<sup>48</sup>

This again begs the question of just how connected were Galton and Darwin? They were cousins and arguably close at one point in their youth, this we know. And clearly their lives intersected at this point yet again, with Darwin reading about his cousin’s travels with praise and excitement, and Galton apparently basking in the glow. But as Galton advanced his ideas on human heredity, did he see himself as supporting or refuting Darwin’s claims on evolution?

The answer seems to be both. It does not take much knowledge of Galton’s eugenics to draw parallels with Darwinism. Galton makes no secret of the fact that he read his cousin’s work on evolution in plants and animals, and admired what he found. He even attempted an experiment to prove one of Darwin’s less sound hypotheses, namely, pangenesis. Pangenesis was Darwin’s rather complicated way of trying to explain the hereditary properties of plants, without the necessary knowledge of Mendelian genetics. Gregor Mendel originally proposed his laws of biological inheritance in 1865, but his work did not become widely “discovered” until 1900. Meanwhile, Darwin proposed pangenesis in 1868, ultimately hypothesizing “...offspring are created from a selection of the gemmules contained within each parent, whilst the unused gemmules lie dormant within progeny ready for transmission and potential

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<sup>47</sup> Gillham, *A Life*, 96.

<sup>48</sup> Pearson, *The Life*, 240.

realization in future generations.”<sup>49</sup> If you replace “gemmules” with “genes” and are talking about the possibility of latent genes, than Darwin really was not too far off. But his whole concept of “gemmules,” which were described as the result of “each part of an organism throwing off minute granules or atoms,” are not equivalent to what we now call “genes.”<sup>50</sup>

Still, Galton believed in Darwin’s hypothesis and thus set out to prove it with a series of experiments that took place between December 1869 and June 1870.<sup>51</sup> Renwick best describes what the experiment was composed of as well as the results:

With the advice and practical assistance of Darwin and others, Galton extracted small amounts of blood from rabbits of one breed and colour and injected it into rabbits of a different kind. Galton’s assumption was that if pangenesis were true then the fur colouring of the offspring of the rabbit into which blood had been injected would deviate from what would be expected ordinarily. However, in what Darwin’s wife, Emma, described to correspondents as ‘a dreadful disappointment’ to both Galton and Darwin, the experiments were a failure.<sup>52</sup>

Galton wrote openly that pangenesis was falsified, an accusation that Darwin strongly refuted and pushed back against, blaming the failure on the experimenter rather than the hypothesis.

A war of words could have ensued between the pair, but Galton gracefully bowed out, allowing Darwin to have the final say, probably because he knew he would never win such a battle of words against his more illustrious cousin.<sup>53</sup> But the failure to prove pangenesis sealed the deal for Galton. If he was going to prove his theory on human heredity it would have to be through what he knew best, statistical analysis, rather than biology.

Following the failure of his experiments in 1870 Galton cooled his relationship with Darwin, though they did stay in touch, and Galton found another, more like-minded

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<sup>49</sup> Chris Renwick, "From Political Economy to Sociology: Francis Galton and the Social-Scientific Origins of Eugenics," *British Journal for the History of Science* 44, no. 3 (09, 2011): 356.

<sup>50</sup> Pangenesis is a very old explanation for how offspring come to look like their parents. Aristotle discussed it widely and carried out experiments with plants.

<sup>51</sup> *Ibidem*.

<sup>52</sup> Renwick, “From Political Economy to Sociology,” 356-357.

<sup>53</sup> Renwick, “From Political Economy to Sociology,” 357.

proponent of his theories -- Herbert Spencer. Spencer is known as the founder of Social Darwinism or the theory that basically classifies people and social groups in the same way Darwinism does plants and animals. While it maintains a biological façade, much as eugenics does, Social Darwinism is purely a social science. And it is Spencer, not Darwin, whom we have to thank for the enduring phrase of “Survival of the Fittest.” Galton’s relationship with Spencer seems far less tense, and more amicable than his association with Darwin. Just as Galton was sure to put his cousin in place in *English Men of Science*, he also makes sure to praise his good friend, Spencer. “The pleasant duty remains,” he wrote in the introduction, “of acknowledging a debt to my friend, Mr. Herbert Spencer, for many helpful suggestions, and for his encouragement in planning this work.”<sup>54</sup>

Spencer was a man on a mission, trying to fit his theories into any framework that could possibly support them. Evidence of this can be found in a story about Spencer that Galton shared in his autobiography:

Spencer, during a pause in conversation at dinner at the Athenæum, said, “You would little think it, but I once wrote a tragedy. Huxley answered promptly, “I know the catastrophe.” Spencer declared it impossible, for he had never spoken about it before then. Huxley insisted. Spencer asked what it was. Huxley replied, “A beautiful theory, killed by a nasty, ugly little fact.”<sup>55</sup>

It is important to note that race does not originally appear in Darwin’s assessment of evolution. But it is all over Spencer’s theory. Social Darwinism is possibly more inherently racist than eugenics, because while Galton himself believed in white Anglo-Saxon superiority, he always argued in the case of his theories that he sought to improve mankind as a whole. Now, true, that might have meant making all of mankind like the white Anglo-Saxons he prized, but again we are brought back to his quotation in *Essays*, “There are vast

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<sup>54</sup> Galton, *English Men of Science*, vii.

<sup>55</sup> Galton, *Memories*, 258.

number of conflicting ideals of alternative characters, of incompatible civilisations; but all are wanted to give fulness [sic] and interest to life... The aim of Eugenics is to represent each class or sect by its best specimens; that done, to leave them to work out their common civilisation in their own way.”<sup>56</sup>

Galton does not advocate the elimination of any race or group in his eugenics project. What he is interested in is classifying the “best” of all peoples and encouraging them to reproduce so that their offspring will eventually produce a better society. This is positive eugenics. Spencer, however, had no qualms with advocating negative eugenics, with insisting that certain people not be allowed to breed, and with arguing that the only way to improve society was to get rid of “undesirable” elements within it. It would ultimately be Spencer’s vision of eugenics, not Galton’s, which would become popularized and applied as a pseudo-science. This should not be surprising, seeing as much of what is popularly known of evolution is not purely Darwinian, but from Spencer as well. Though better known to most academics than Galton, Spencer is still something of the man behind the curtain of Victorian intellectual history. He was influential in taking the great ideas of other men, with Darwin and Galton being just two of them, and giving them a façade that made them seem approachable and appealing to the public at large. The works of Darwin and Galton were the discourse of the elite, but the works of Spencer became the vernacular of the everyday man.

Galton continued to travel and to gain fame as a writer, an explorer, and a scientist. His ideas on human hereditary intelligence were not developed until 1865, making it six years after the publication of Darwin’s *Origin of the Species*. To assist him in his statistical analysis, Galton set out to collect massive data sets. He set up a laboratory at the

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<sup>56</sup> Galton, *Essays*, 36-37.

International Exhibition in London in 1884, which served two purposes, one, to educate the public on heredity with an interactive display, and two, to collect data on all who attended the Exhibition and went through the laboratory.<sup>57</sup> Galton also collected data from other sources, including records at Cambridge University and the examination marks for admission into the Royal Military College at Sandhurst.<sup>58</sup> Early on in this endeavor he created a chart allowing for the “classification of men according to their natural gifts.”<sup>59</sup> All of this information he input into statistical terms. From the beginning, Galton’s theories were attacked based on the grounds of nature versus nurture, on which side Galton clearly stood in alliance with nature. He would later modify his theories to give some little relevance to environment, but by and large he believed that a man was born, not made, and he gave three points to defend this view. Firstly, he argued that no matter the humbleness of his circumstance, a gifted man would always rise to prominence and argument that is blatantly false. Secondly was something of a straw man argument, where Galton citing America which had a much broader education system for the lower classes than Britain did. Despite this, America did not produce the same amount of fine art, literature, or philosophy that the British did. That point clearly ignores the fact that the British had been producing such things long before America even existed, making it a skewed comparison, at best. Thirdly, Galton used adoption studies to try and lessen the impact of environment and stress the importance of heredity.<sup>60</sup> The idea was to try and prove that siblings would turn out similar even if they were brought up in different environments, an argument that in modern times has been shown to have some truth to it but not in the way Galton tried to use it.

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<sup>57</sup> Galton, *Memories*, 245.

<sup>58</sup> Gillham, *A Life*, 160.

<sup>59</sup> *Ibidem*.

<sup>60</sup> Gillham, *A Life*, 161.

Galton would go on to collect data on heredity from a number of sources, both contemporary and historical. He was keenly interested in the pedigrees of great British men and their families and traced them back for generations to “prove” the scope of hereditary genius. He would categorize the pedigrees using traits such as profession and wealth, as well as which institutes of higher learning they attended and in some cases helped to found. Perhaps his most interesting experimentation on hereditary, and ultimately the most successful, was done on sweet peas starting in 1874 and continuing on for more than a year, much like Mendel’s research on genealogy.<sup>61</sup> While he was never able to isolate the carrier of change and heredity within the sweet peas, he was able to show that it was possible to breed in desirable traits and, consequently, to weed out undesirable ones. For Galton, though the emphasis was always on positive eugenics and encouraging the best to breed with their like kind, to produce more, and better quality stock. Many eugenicists, following in Galton’s footsteps, adamantly argued for human heredity, but inability to explain the mechanism by which it occurred would lead to the popularity of negative eugenics. If eugenicists could not pinpoint the vehicle of transmitting “undesirable” traits from parent to child, then the solution was simple, prevent the person with the undesirable trait from ever being breed. That was the only foolproof way they could insure that traits would not be inherited by the next generation.

Did Galton envision eugenics as a biological science or a social one? He writes almost exclusively as a social scientist, considering himself to be a sociologist, psychologist, geographer, and anthropologist. And arguably he did contribute to the body of knowledge in all those fields. However, while he did try his hand at biological science and testing his

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<sup>61</sup> Gillham, *A Life*, 202.

theory, and he certainly did not stop others from applying his theories as a biological science, the bulk of his “proofs” for eugenics in his own writings are statistical. He knew only *in theory* that what he proposed *should* be true, not that it actually was or by what mechanism it was. To call eugenics as Galton wrote about it a “science” is a stretch. To be a hard science, a theory must be put through rigorous testing and retesting. It must be not only validated by multiple experiments, but it must be proven falsifiable. Galton’s theories were not proven through experimentation, nor is there any way to falsify them. The modern rigorous methods and measures of science were not in place yet though in Galton’s time. Even his suggestions on how to apply his theory are policy based, not biological. Encouraging, not forcing, the well-born to marry and reproduce is a far cry from the compulsory sterilization that applied eugenics would become. Galton never directly advocates such measures. But it is also true that when others proposed it, he was equally silent in trying to stop them. He seemed to take the position that the idea he created had taken on a life of its own and he had no ownership of it, although he was more than happy to take the credit for it.

Who was Francis Galton? He was first and foremost a man of fortune, both literal and figurative. He had the money to do basically whatever he wanted and the good luck to be success in most of his endeavors. He was also very fortunate in his relations, for the whole host of resources they provided him. He was a creator and innovator. While fingerprints have of course existed as long as mankind, Galton was one of the first to publicly argue for their use in identification in 1888. Galton was not a self-made man and he would not argue otherwise. He was truly well-born and his insistence that others could and should be was perhaps a personal reflection of how highly he thought of himself and those like him.

Galton never directly advocated negative eugenics. The dates of his life and works are important though, because they reveal a disconcerting truth. Galton died in January 17, 1911, almost thirty years after he coined the word “eugenics.” The first known eugenic sterilizations occurred in 1893, in the United States by Dr. F. Hoyt Pilcher, physician and superintendent of the Kansas State Asylum for Idiotic and Imbecilic Youth in Winfield, Kansas.<sup>62</sup> That was only ten years after Galton founded eugenics and well within his lifetime. The first eugenics coerced sterilization law was passed also in the United States, in Indiana, in 1907. Galton was alive and well for that too. There is no doubt that these occurrences were openly called “eugenics” and that Galton would have known about them. Did he condemn what appears to have been the corruption of his theory though? No. For such a man of words, he was notably silent on the issue. He did not reject negative eugenics. He did not endorse it, but as the founder of what would become a full-fledge movement, he could have at the very least voiced opposition to where that movement was going and he did not. Whether his original theory advocated positive eugenics or negative eugenics ultimately means little in the face of that fact. He could have done something to try and prevent the tragedy that was about to unfold, but he chose not to. For that Sir Francis Galton deserves infamy, more than for the founding of the theory of eugenics itself.

Galton was a man of words and ideas. He was arguably charismatic, and a man of marked authority, but he lacked something eugenics needed to flourish. He lacked the media necessary to broadcast his idea. He had many platforms available to him, but his potential audience was a highly restrictive one. His word really only circulated amongst his fellow elites and not among the general population. Eugenics needed a louder, perhaps harsher,

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<sup>62</sup> Mark A. Largent, *Breeding Contempt: The History of Coerced Sterilization in the United States* (New Brunswick, New Jersey: Rutgers University Press, 2008), 22

voice than its refined, well-born founder possessed. Galton needed a successor to carry on his work, someone maybe not as famous as an individual as he was, but someone who would make the theory famous. That successor would be hand-picked by Galton, in the form of Professor Karl Pearson. It would be he who really started the love affair between eugenics and media forms beyond the monographs Galton was known for. If Galton was the father of eugenics, the man who brought the idea to life, than Pearson would be the man who reared it through childhood, through its critical, formative years.

## CHAPTER 2

### “GOODNESS OF FIT”: THE LIFE OF KARL PEARSON AND EVOLUTION OF EUGENICS

*We are only at the very beginning of the movement, and its possibilities are enormous, and in one sense or another every man in that service is concerned with what makes for the racial efficiency of future generations — he must nolens volens (willingly or unwillingly) become a eugenicist.* ~Karl Pearson<sup>1</sup>

In 1912, at the age of 55, Karl Pearson was given a monumental task, to deliver the Cavendish lecture. He spoke as a layman addressing medical professionals on the topic of medicine’s relationship with eugenics and Darwinism. But while he was no medical professional, Pearson was no ordinary layman either. By 1912, he was Britain’s most prominent eugenicist and biostatistician and the protégé of Sir Francis Galton (1822-1911), the founder of eugenics. He was also a dedicated, lifelong, academic, moving between various institutions throughout his life. Pearson revered Galton, but he did not follow him lockstep. Instead he took Galton’s concepts and altered them to make them more marketable to medical professionals and the general public. Significantly, much of what scholars recognize today as eugenics is Pearson’s revised edition of it, not Galton’s original. Eugenics started as an idea with Galton but it was Pearson who would champion its application as a matter of medicine and public policy.

Pearson is an under-appreciated actor in the history of eugenics. He was critical in the transmission and transformation of Galton’s ideas, but has mostly been overlooked as a subject of study by historians. The only modern biography of Pearson is *Karl Pearson: The Scientific Life in a Statistical Age*, published in 2004 and written by Theodore M. Porter, an historian of science. There is also different biographical articles written for the journal

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<sup>1</sup> Karl Pearson, *Darwinism, Medical Progress and Eugenics*; the Cavendish lecture (1912), 3.

*Biometrika* (which Pearson founded along with Galton and fellow Cambridge man W.F.R. Weldon) by Pearson's son Egon Pearson and biologist J.B.S. Haldane.<sup>2</sup> Egon Pearson would later expand upon the article and publish it as a full-length biography in 1938.<sup>3</sup> Both Egon Pearson and Porter make clear Pearson was a figure in the eugenics movement, but neither showcases him as the agent of change and proliferation that he was. *Very little has been written, in general, about how the concept of eugenics was disseminated, first, through intellectual circles and then, through the public. From the way the history has been told, one would think that Galton single-handedly created eugenics one day and then had everyone talking about it the next.*<sup>4</sup> *But while Galton was an intellectual powerhouse and did do a lot of the legwork in promoting eugenics, he was not alone in that endeavor. Other actors including Pearson, played key roles in making eugenics the movement it became. Little has been written about the difference between Galton's conceptualization of eugenics and its later application. And few have researched how eugenics made its transatlantic crossing, a story that Pearson is a piece of. Instead of looking at him as a man who rode the coat tails of Galton, this paper looks at Pearson as an independent actor and agent of history. It shows that Pearson's alterations to eugenics and his push to make it a part of public policy, especially through medicine and mathematics, was crucial in making eugenics into an*

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<sup>2</sup> J. B. S. Haldane, "Karl Pearson, 1857-1957." *Biometrika* 44, no. 3/4 (1957): 303-13.; Pearson, E. S. "Karl Pearson: An Appreciation of Some Aspects of His Life and Work." *Biometrika* 28, no. 3/4 (1936): 193-257.

<sup>3</sup> E. S. Pearson, *Karl Pearson: An Appreciation of Some Aspects of His Life and Work* (Cambridge: Cambridge University Press, 1938.)

<sup>4</sup> For a selection of sources that credit Galton solely or almost entirely for the creation and perpetuation of eugenics see: Allan R. Buss and A. R. Buss, "Galton and the Birth of Differential Psychology and Eugenics: Social, Political, and Economic Forces." *Journal of the History of the Behavioral Sciences* 12, no. 1 (1976): 47-58; Chris Renwick, "From Political Economy to Sociology: Francis Galton and the Social-Scientific Origins of Eugenics," *British Journal for the History of Science* 44, no. 3 (09, 2011): 343-369; M. Bulmer, *Francis Galton: Pioneer of Heredity and Biometry*. Baltimore and London: Johns Hopkins University Press, 2003; Nicholas Wright Gillham, *A Life of Sir Francis Galton: From African Exploration to the Birth of Eugenics* (Oxford: Oxford University Press, 2001)

*applied science.*

While he is an obscure figure today, in his time Pearson was a man of respect and renown, although not always an accepted member of the scientific community he contributed to. That was a matter of Pearson's own choice though. He intentionally withdrew from the scientific community to a large degree after 1910.<sup>5</sup> Withdrawing from the scientific community for Pearson meant limiting his public addresses to rare and exclusive events (such as the Cavendish lecture) and taking direct control of his published works. He continued to be a prolific writer even after stepping away from the scientific community, however, choosing to self-publish pamphlets and journals instead of relying on the more traditional and established scholarly publishing houses. Pearson was determined to keep as much control over his work as possible, dictating how it was broadcast and trying to control how others interpreted it.

It is unknown why exactly Pearson made this dramatic move, but there may be clues in Haldane's centenary address on Pearson, which was published in written form in the *Biometrika*. In it Haldane says, "All power corrupts. It is impossible to be a professor in charge of an important department, and the editor of an important journal, without being somewhat corrupted."<sup>6</sup> Haldane goes on to elaborate by acknowledging that Pearson "rejected lines of research which turned out to be fruitful" while using his positions of power to advance research that would later be falsified and discarded.<sup>7</sup> Porter also comments that Pearson was "beyond question a fierce antagonist, and he made many enemies."<sup>8</sup> He goes on

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<sup>5</sup> Theodore M. Porter, *Karl Pearson: The Scientific Life in a Statistical Age* (Princeton, N.J.: Princeton University Press, 2004), 11.

<sup>6</sup> Haldane, J. B. S., "Karl Pearson, 1857-1957," *Biometrika*, 303.

<sup>7</sup> *Ibidem*.

<sup>8</sup> Porter, *Karl Pearson*, 266.

to note that the disagreements and outright feuds Pearson got himself into with other members of the scientific community were, “all the more bitter,” given Pearson’s attitude and own worldview.<sup>9</sup> It is highly possible that it was his own confrontational and tenacious personality inspired Pearson’s withdraw from the scientific community as well as his insistence that he be in full control of his work. He had to be right and the only way he could insure that no one would challenge him was to insulate himself and his work, making it out of reach to his potential critics.

Though he is not a household name by any means, Pearson’s contribution to statistics, science, and society have not been forgotten. The home he and his family shared at 7 Well Road in Hampstead is commemorated with one of Britain’s prestigious blue plaques remembering him as a “pioneer statistician.”<sup>10</sup> Carl Pearson (he changed the spelling to Karl in 1880) was born in London, March 27<sup>th</sup>, 1857.<sup>11</sup> According to the University of Minnesota, he changed his name due to his belief in “his own special variety of social Darwinism.”<sup>12</sup> This claim is unsubstantiated by other sources, including Pearson’s own words. Haldane suggested that he changed his name out of admiration for Karl Marx and many have taken that remark to be fact.<sup>13</sup> Porter disputes it, however, stating, “There is no contemporary evidence for this claim, and there are reasons to doubt it.”<sup>14</sup> What is known for certain is that Pearson’s name change occurred after a trip to Germany in 1880, according to Porter, greatly changed his worldview.<sup>15</sup>

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<sup>9</sup> Ibidem.

<sup>10</sup> Open Plaques, Karl Pearson, <http://openplaques.org/people/229> (Accessed 04/02/2018).

<sup>11</sup> Porter, *Karl Pearson*, 15.

<sup>12</sup> University of Minnesota, Morris, <http://mnstats.morris.umn.edu/introstat/history/w98/Pearson.html> (Accessed 04/11/2018).

<sup>13</sup> Haldane, J. B. S., "Karl Pearson, 1857-1957," *Biometrika*, 304.

<sup>14</sup> Porter, *Karl Pearson*, 78.

<sup>15</sup> Porter, *Karl Pearson*, 84.

Pearson was a second son and middle of three children. His father, William, came from Quaker stock, the same as Galton's paternal line. Pearson would later theorize that there was a hereditary stubbornness shared by those born to that group, which allowed them to not only endure generations of persecution but thrive in spite of it.<sup>16</sup> William Pearson, however, to promote his professional ambitions chose to give up his family's faith and alienated himself from his relatives. It is unknown whether he ever formally committed himself to the Anglican church in order to be better accepted and get ahead. He decided to study law, became a barrister, and eventually was elevated to the Queen's Counsel in 1875.<sup>17</sup> While Karl certainly picked up his father's work ethic, he claims not to have seen much of him in his youth, and certainly did not share the intimate father-son relationship that Galton fondly recalled of his father. Instead it would seem that young Karl was more inclined emotionally towards his much suffering mother, Fanny, who was described by Pearson and other sources as being deeply unhappy in her life and marriage. Unlike his elder brother, who was sent away to public boarding school at a young age, Karl was allowed to stay home until the age of fifteen apparently on the behest of his mother, who wanted him close.<sup>18</sup> He then began his private education at University College School. Pearson never boasts about his family's prominence the way Galton does about his, but he was keenly interested in his own pedigree.<sup>19</sup>

Pearson's interest in his Quaker heritage is somewhat strange, given both the fact that his father turned his back on the faith and Pearson's own thorny relationship with religion,

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<sup>16</sup> Karl Pearson, *The Life, Letters and Labours of Francis Galton* (Cambridge: Cambridge University Press, 1914), 9.

<sup>17</sup> Porter, *Karl Pearson*, 16.

<sup>18</sup> Porter, *Karl Pearson*, 20.

<sup>19</sup> Porter, *Karl Pearson*, 13.

especially Christianity. Pearson was an avowed agnostic, which put him in a precarious place when it came to the Victorian society in which he lived. He first declared himself not a Christian privately in his diary at the age of twenty-one.<sup>20</sup> As he grew older and more established, Pearson became more vocal about his opinion that science and not religion should be the foundation of belief for people. As Porter puts it, “The old faith no longer provided a moral compass for society in this age of capitalism and consumption. Nor could it give direction to his [Pearson’s] own life.”<sup>21</sup> In a letter to the Cambridge Review, Pearson wrote, “No man rejects Christianity without a great and continuous struggle... A battle like this, is in itself a purifying process, nay, a self-sacrifice, and by showing a man his intellectual impotence at least teaches him intellectual humility.”<sup>22</sup> Pearson called his moral philosophy “freethought,” which he had to defend against some unsavory associations, but he preferred the term over “agnostic,” because he felt the latter term was too pessimistic in its outlook towards the infinite possibilities of knowledge.<sup>23</sup> His disbelief in religion helped fuel his urge to conduct scientific inquiry, “He was above all a rationalist, intent on subjecting all social conventions to the cold eye of reason. And he saw himself as an intellectual adventurer, prepared to dedicate his life to ‘destroying old idols’ and hewing ‘new paths’ through the ‘jungle’.”<sup>24</sup> Pearson’s questioning of religious tradition fits with his overall character and life’s work. He clearly becomes a statistician, and in his mind a scientist, to ask and more importantly answer questions about the world around him and humanity itself. And as we will see later when examining his eugenic policies, he had little qualms with putting

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<sup>20</sup> Porter, *Karl Pearson*, 14-15.

<sup>21</sup> Porter, *Karl Pearson*, 15.

<sup>22</sup> Karl Pearson, letter to Cambridge Review, 2, (3 Nov. 1880)

<sup>23</sup> Porter, *Karl Pearson*, 108.

<sup>24</sup> Judith R. Walkowitz, *City of Dreadful Delight: Narratives of Sexual Danger in Late-Victorian London* (Chicago: University of Chicago Press, 1992), 137.

himself in “the place of God” when it came to designating who was superior and deserving of life versus who was inferior and unworthy.

Pearson was also vehement in his political discontent and labeled himself a socialist as early as 1880.<sup>25</sup> To quote Porter, “His [Pearson’s] dedication to socialism, while growing out of his criticisms of his own nation, developed particularly during his year in Germany (1879-1880) and has often been attributed to his friendship with Raphael Wertheimer.”<sup>26</sup> While in Germany, Pearson also established a relationship with future economist Frank Taussig, which likely have influenced his conversion to socialism as much as his correspondence with Wertheimer.<sup>27</sup> Pearson became well-read in Karl Marx (1818-1883) and Scottish intellectual Thomas Carlyle (1795-1881) during his time in Germany and both colored his evolving world view, but he also picked up ideas from contemporary British socialist thinkers John Ruskin (1819-1900) and William Morris (1834-1896). As a result, Pearson’s socialism became a hybrid of German political economy and British social thought that Pearson married with Darwinism to create his own unique form of socialism. For that he was also considered eccentric, but not discredited or estranged from the scientific community, which speaks to what a force Pearson really was in his day and age. His allies in the British scientific community and scholarship included such men as W.F.R. Weldon (1860-1906), Sir W.T. Thiselton-Dyer (1843-1928), Sir Edwin Ray Lankester (1847-1929), G. Carey-Foster (1835-1919), Thomas Hardy (1840-1928), and George Meredith (1828-1909).<sup>28</sup> He was allowed to be a religious and political dissonant at a time when most dissent of any kind was crushed or silenced. But in Pearson’s case it was seen as marking him as an

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<sup>25</sup> Porter, *Karl Pearson*, 69.

<sup>26</sup> Porter, *Karl Pearson*, 73.

<sup>27</sup> Porter, *Karl Pearson*, 74.

<sup>28</sup> Porter, *Karl Pearson*, 218.

individual and a true intellect.

At the age of nineteen Pearson attended King's College, Cambridge, where he first studied law and then mathematics, much like Galton. Unlike Galton, however, Pearson had no background in medicine or biology. Yet, neither was he strictly a mathematician. In addition to studying law, he wrote a cultural history of Germany during the Reformation while in college and showed an unusual interest in what was referred to as "the woman's question."<sup>29</sup> Pearson was the founder of the Men and Women's Club in 1885, "a group of middle-class radical-liberals, socialists, and feminists who shared his [Pearson's] high seriousness and sense of intellectual adventure."<sup>30</sup> The members of the Men and Women's Club discussed topics ranging from the historical to the contemporary, drawing on a variety of sources from personal experience to Darwin and anthropological writings.<sup>31</sup> Pearson and his club members prided themselves on their scientific inquiry into matters of sex and gender. They considered themselves insulated and elevated from the "vulgarity and crass sensationalism" of the lower classes, when in reality they drew from the same themes as the popular culture they claimed to detest.<sup>32</sup> Pearson was said to have formed the club as "a response to his own unhappy family history, a scientific interest in fieldwork, [and] his own courtship ambition."<sup>33</sup> According to most observers, both contemporary and later, he had the mind for the project, but not the personality.<sup>34</sup> Pearson would make a name for himself as being a man with a keen mind and a cold and arrogant demeanor. But what is possibly most interesting about Pearson's creation of the Men and Women's Club is the eugenic nature of

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<sup>29</sup> Porter, *Karl Pearson*, 14.

<sup>30</sup> Walkowitz, *City of Dreadful Delight*, 135.

<sup>31</sup> *Ibidem*.

<sup>32</sup> *Ibidem*.

<sup>33</sup> Walkowitz, *City of Dreadful Delight*, 137.

<sup>34</sup> *Ibidem*.

the club years before Pearson became a professed eugenicist. Pearson wanted female reproduction to be regulated by men of science like him for the good of the species.<sup>35</sup> That is eugenics in every sense of the word and male control over the female body would become a hallmark of the movement, especially in America. But at the time Pearson founded the Men and Women's Club, in 1885, he did not call his theories "eugenics" but espoused them in the name of socialism. He believed that state management of reproduction was at the very heart of socialism and public health.<sup>36</sup>

Pearson found trustworthy women to join his club with the help of Elizabeth Cobb, the dissatisfied wife of a solicitor M.P., who was described as an equally "restless spirit" as Pearson.<sup>37</sup> Women she recruited included her sisters, a mathematics teacher from a girl's high school (Miss Shedlock), a female doctor (Kate Mitchell), a radical feminist (Miss Muller), and an acclaimed author (Olive Schreiner, 1855-1920).<sup>38</sup> Even more formidable and active socialist women, such as Eleanor Marx Aveling (youngest daughter of Karl Marx, 1855-1898), Annie Besant (1848-1933), Emma Brooke (1844-1926), and Charlotte Wilson (1854-1944), became associated with the club through correspondence and as visitors.<sup>39</sup> Interestingly enough, there does not seem to be nearly as much written by scholars about the men in the club as the women. They could help build up the picture of the younger Pearson. Other than Pearson, the only named male member of the club was its president, barrister R.J. Parker, at whose house the Club frequently met.

We may know some of the names of women in the Men and Women's club, but not

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<sup>35</sup> Walkowitz, *City of Dreadful Delights*, 138.

<sup>36</sup> *Ibidem*.

<sup>37</sup> Walkowitz, *City of Dreadful Delights*, 139.

<sup>38</sup> *Ibidem*.

<sup>39</sup> Walkowitz, *City of Dreadful Delights*, 141.

much else is known about them outside the club records. We do not know the life and death dates of many of them. While they distinguished themselves as members of the organization, time seems to have forgotten who these women actually were. This is most notable in the case of Elizabeth Cobb. We know that she was more than a decade Pearson's senior, although her exact life and death dates have never been published in any work about Pearson or the Men and Women's club.<sup>40</sup> Cobb was also the elder sister of Pearson's first wife, Maria Sharpe (1853-1928), whom Cobb recruited as a member of the Club and introduced to Pearson. Apparently Cobb and Pearson corresponded frequently between 1882-1885, but in 1885 Pearson asked Cobb to destroy his letters, which was an unusual step for a man known for keeping everything written to and about him, no matter how trivial or from what source.<sup>41</sup> Cobb refused to do as Pearson asked of her; however, the letters have still been lost and with them a rare window possibly into a more candid, less scripted Karl Pearson. Pearson did keep all of Cobb's letters to him though and through them we can paint a picture of a woman history has forgotten.

Cobb, the mother of four children and stepmother of four more, was a woman who dreamed loftily of living in the same intellectual world in which Pearson dwelt.<sup>42</sup> She saw Pearson as her ticket to that world. And to a certain extent he was. The two had some very deep intellectual conversations including about Austrian poet Robert Hamerling's *König von Sion* (1869), which Pearson gave Cobb his copy of after she showed her dedication by learning to read German.<sup>43</sup> But while Cobb wanted to be intellectually elevated to Pearson's level she also wanted to help Pearson develop into a more emotional and warm individual,

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<sup>40</sup> Porter, *Karl Pearson*, 132.

<sup>41</sup> Porter, *Karl Pearson*, 131.

<sup>42</sup> Porter, *Karl Pearson*, 132.

<sup>43</sup> *Ibidem*.

something that he strongly resisted. At one point in 1886, Cobb referred to Pearson as “more impersonal than any one I know, he looks at things from an outside standpoint, and in the abstract, and seems as a rule absolutely without personal feeling.”<sup>44</sup> That description of Pearson, or one very much like it, would dog him his entire life. Many sources refer to him as being a cold man, one who refused to compromise. Pearson claimed to value logic over all else, but frankly, it was his own personal ideas and ego that he truly valued. His refusal to be wrong would cost his legacy as much as it seemingly brought him pride in his lifetime.

When and how exactly Pearson was first introduced to Darwinism is unknown, but evidence points to it being at some point in his fairly early academic career. He was certainly well acquainted with the idea by the time he founded the Men and Women’s Club, a variant of Darwinism being one of the driving principles behind Pearson’s pondering of the “woman’s question.”<sup>45</sup> Two years after the end of the Men and Women’s Club, in 1891, Pearson first met Darwin’s cousin, Francis Galton. The two men were introduced to each other by the zoologist W.F.R. Weldon. Pearson had collaborated with him when they both worked at Gresham College.<sup>46</sup> Pearson’s work with Weldon is the first time we know, for certain, of him branching out into the biological sphere. By 1893-94, Pearson was having “increasingly intense evolutionary discussions with Weldon” that came together in “the crystallization of his statistical vision.”<sup>47</sup>

In 1897, Pearson, now the professor of applied mathematics at University College, London, published *The Chances of Death, and Other Studies in Evolution* in two volumes. In

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<sup>44</sup> Ibidem.

<sup>45</sup> Extensive research into the Men and Women’s Club has not been conducted, but for more information read Judith R. Walkowitz’s *City of Dreadful Delight: Narratives of Sexual Danger in Late-Victorian London*.

<sup>46</sup> University College of London, <https://www.ucl.ac.uk/statistics/departments/pearson> (Accessed 04/02/2018).

<sup>47</sup> Porter, *Karl Pearson*, 237.

the preface to the first volume, Pearson writes about the continuity of the essays that appear in his collection. He wrote, “He [Pearson] believes that the sympathetic reader will find in one and all the essays the fundamental note of the author’s thought, namely: the endeavor to see all phenomena, physical and social, as a connected growth, and describe them as such in the briefest formula possible.”<sup>48</sup> Here we see the union of Pearson’s different approaches, statistical (formula), biological (growth of physical phenomena), and even sociological (growth of social phenomena). He was a Universalist, who searched for universal laws in the hard sciences in the later nineteenth century.

The first essay, “The Chances of Death”, opens like a literary/art critique, going over various depictions of death throughout the Middle Ages. Then Pearson introduces the concept of chance, as it relates to death, and how at first glance the two seem almost to be one and the same. But then Pearson throws in mathematics to show that chance is not lawless or chaotic at all and can actually be mediated, or even possibly controlled, at least in large numbers. He admits that it is not always possible to know individual instances, but in large numbers instances follow a mathematical distribution revolving around a mean. When things occur unexpectedly or against the math, Pearson points out that this just means chance is not the operative agent at play. There is at least one other variable in the equation for, “Our conception of chance is one of law and order in large numbers; it is not the idea of chaotic incidence which vexed the medieval mind.”<sup>49</sup> It’s a fascinating thought, and if you follow his argument he suggests that death is potentially also rendered to a mathematical formula and can be accounted for as such. It takes the mysticism and mystery that has surrounded death from time out of mind and makes it rational and potentially predictable if the right formula is

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<sup>48</sup> Karl Pearson, *The Chances of Death, and Other Studies in Evolution* (London: E. Arnold, 1897), vi.

<sup>49</sup> Pearson, *Chances of Death*, 15.

known. This was Pearson's whole purpose in his work, to take things that people typically dismissed as unknowable and make them known. He wanted to take a world of superstition and old wives' tales and make it modern, make it scientific, make it so that the knowledge was available to anyone with the means of accessing it.

A great example of this is Pearson's 1892 book, *The Grammar of Science*. In that work Pearson sets out to criticize modern science, especially the newly developing field of physics, for its use of language that, Pearson felt was tainted by old, unscientific, meanings and associations. Pearson illustrates this conflict in the preface, writing, "One result of this obscurity we probably find in the ease with which the physicist, as compared with either the pure mathematician or the historian, is entangled in the meshes of such pseudosciences as natural theology and spiritualism."<sup>50</sup> Pearson goes on to attack the metaphysical by saying, "Hence we must conclude that metaphysics are either built on air or on quicksands—either they start from no foundation in facts at all, or the superstructure has been raised before a basis has been found in accurate classification of facts."<sup>51</sup> In both of these quotes we see Pearson's disdain for the unscientific and the determination to make all things known through what he considered legitimate scientific measures.

Pearson's writing is highly technical. "The Chances of Death" is filled with graphs, equations, and of course statistics. His writing is, however, much more accessible than those of Galton's. Galton's writings are so bogged down with statistics that there is no narrative to his studies, no way to understand what he is saying if you are not well versed in the language of mathematics. Pearson does have a narrative and uses clear, real life examples that any layperson can understand. And his writing is actually quite good by modern standards, easily

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<sup>50</sup> Karl Pearson, *The Grammar of Science* (London: Walter Scott, 1892), viii.

<sup>51</sup> Pearson, *Grammar of Science*, 20.

readable even today. It is engaging and makes the constant statistics more palatable. Pearson himself even admits that there are some things that can only be expressed in art:

It would need a great artist to bring that human procession vividly before the reader. Such alone could fully realise my dream on the Mühlenbrücke at Luzern of twenty years ago. But I ventured to put the roughest of sketch suggestions before two artists. The one, trained in the modern impressionist school, failed, I venture to think, in fully grasping the earnestness of life; the other, reared among the creations of Holbein, Flaxman, and Blake, shows more nearly the spirit of my dream.<sup>52</sup>

This admission is an interesting one, because for as much as eugenics was marketed as a science, it was also an art not that Pearson would have admitted such a thing.

In the collection of essays, *Art, Sex and Eugenics* editor and contributor Fae Brauer highlights the sometimes subtle, sometimes overt, and often times, peculiar relationship between art and eugenics.<sup>53</sup> Arguably it has been a preoccupation of artists since Hellenistic times, to portray in art the ideal human body. Where it started as far as modern eugenics is with Galton, the movement's founder. Galton was convinced that the best of all humanity were white, Anglo-Saxons, a view that he became entrenched in after his exploration of Africa and contact with its native people of color. Galton was also an unapologetic Victorian elitist. In his attempt to illustrate his point that well-to-do Britons were indeed the superior race of humanity, Galton became almost obsessed with portrait photography. Through the Anthropometric Laboratory at the International Health Exhibition, which opened at the South Kensington Science Museum in 1884, Galton and his associates who worked as the lab's technicians collected the biostatistics and portraits of hundreds of individuals and families.<sup>54</sup>

The portraits captured at the laboratory were based on a now famous portrait of Galton

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<sup>52</sup> Pearson, *Chances of Death*, 40.

<sup>53</sup> Brauer, Fae, and Anthea Callen, eds., *Art, Sex and Eugenics: Corpus Delecti* (New York: Routledge, 2016).

<sup>54</sup> Brauer and Callen, *Art*, 17.

himself (figure 2.1). Pearson was well-acquainted with Galton by the time of the laboratory's opening and *Chance of Death* was published over a decade later, so Pearson would have been mindful of the fact that the scientific perfection that he sought to prove had a certain "look" prescribed to it.

Historian Ludmilla Jordanova writes extensively on visual culture and its place in history. She has written especially about the evolving art and *science* of portraits, particularly as they were used by predominantly men of science, medicine, and their relative technology.<sup>55</sup> Traditionally portraits were reserved for the distinguished and the renowned: Men like Galton and his cousin, Charles Darwin, and their highly respected physician grandfather Erasmus Darwin. The portraits of these men were meant to convey their significant and prominence. Sometimes they gave hints as to what the men actually did, sometimes they only conveyed that they had been great enough men to earn the honor of having their likeness immortalized in painting or photograph. But Jordanova notes that the invention of photography marked an important shift in the meaning and uses of the portrait.<sup>56</sup> Portraits evolved at the same time disciplines like science and medicine became real "professions" and so too were changing rapidly. Galton and those working at his laboratory were on the cutting edge of this innovation and change. Using photography to take the portrait of so many common people was almost unheard of at the time. Photography was a democratizing invention, one that allowed even the lower classes to be seen in a way they were never deemed important enough to show in the past. Galton understood the power of this imagery and so too did Pearson.

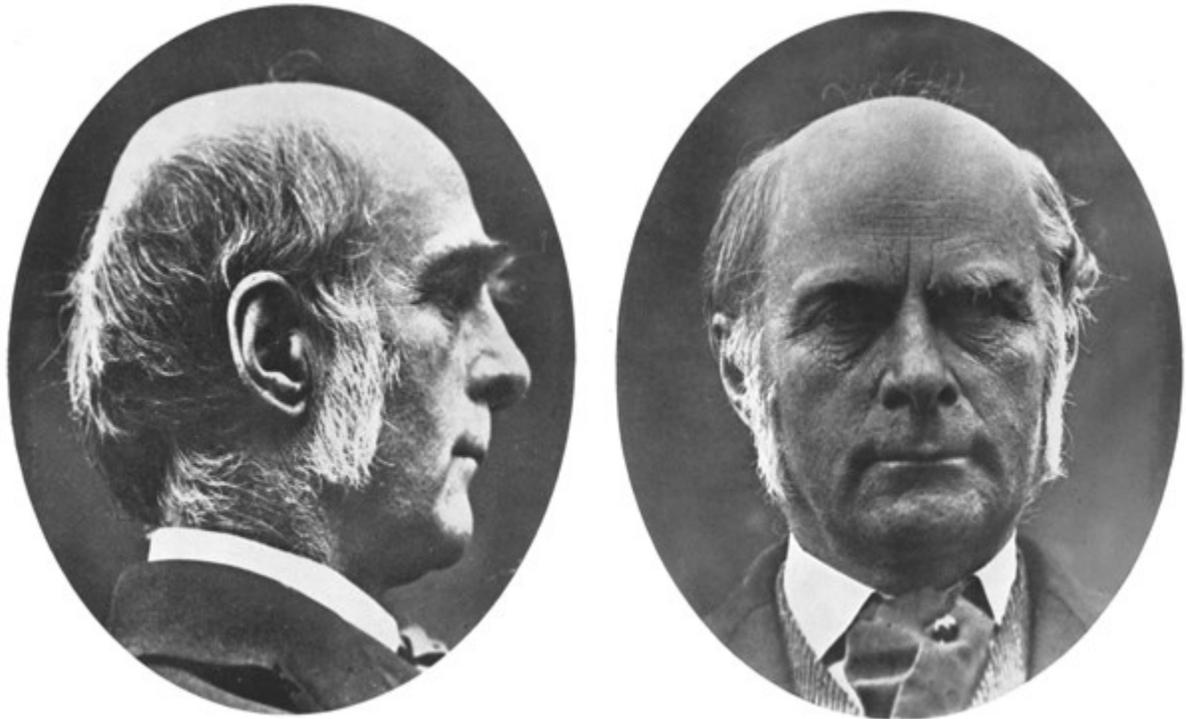
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<sup>55</sup> Ludmilla Jordanova, *Defining Features: Scientific and Medical Portraits 1660-2000* (London: Reaktion Books, 2000)

<sup>56</sup> Jordanova, *Defining Features*, 20-22.

Returning to the Pearson's written work, he ends his first essay in *Chances of Death* (1897) with an elusive hope; that maybe someday soon science would allow man to render death as quantifiable as chance, when the odds are fair. He seems to muddle his own argument with the admission that other variables can cause a shift in mathematical predictions, and surely nothing has more variables than life. In his second essay, "The Scientific Aspect of Monte Carlo Roulette", he tries to find a way to get around these vexing variables or at least control for them, which is exactly what scientists performing experiments today attempt to do. This essay is far more technical and less accessible than its predecessor, looking and sounding very much like something Galton would write. Pearson tries to overwhelm his reader with his clearly superior knowledge. In reality, all his equations, while impressive on a school's lecture board, have little or no real world application. They are just hypothetical, not true theories and not applicable to the real world, which is not necessarily a problem except for the fact that Pearson presents them as not just mathematically sound but real world applicable. It presents a certain element of bait and switch to his argument. While Pearson made his writing accessible to a general audience, he makes it clear later in *Chances of Death* that he is writing to fellow academics and intellectuals. His essays in *Chances of Death* are both an introduction to his theories and a rebuttal against arguments and theories of other Victorian social scientists.

Figure 2.1 (Standard portrait of Sir Francis Galton)



The third essay moves away from the topic of the previous two and more into what would be considered classic eugenic territory by informed readers of the topic. It is titled, “Reproductive Selection” and Pearson opens this essay by calling out social writers who “dabble” in scientific terms such as “natural selection” and “heredity.” He wrote, “In the first place, the cause (or group of causes) referred to by any term ought to be so clearly and concisely defined that a quantitative measure therefore can at once be formed.”<sup>57</sup> He goes on to designate what the proper quantitative measures of the words “natural selection” and “heredity,” among other terms, are. But social writers are not real scientists, Pearson accuses, which is why they do not provide the “simple” mathematic “proofs” to their hypotheses and theories. Their work is thus suspect to Pearson. For Pearson this was a very important bone to pick, due to his political and social philosophies. According to Porter, Pearson was not a

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<sup>57</sup> Pearson, *Chance of Death*, 63.

“social Darwinist” but a “socialist Darwinist.”<sup>58</sup> Porter goes on to explain, “The replacement of individual struggle with scientific planning was for Pearson the next phase in human evolution.”<sup>59</sup> Understanding this about Pearson lends insight to his absolute faith in eugenics and helps explain why he defends it so vigorously later in his life when challenged by Mendelian genetics.

But in 1897, when *Chances of Death* was published, Pearson was a long way from that fight. Instead he was looking to prove a point against those he saw as “soft” or even fraudulent “scientists,” in particular sociologists. There is only one, fleeting, mention of Herbert Spencer, the founder of social Darwinism and great friend of Galton, in Porter’s biography of Pearson. This feels like a grievous oversight on Porter’s part, especially as he goes through the trouble of distinguishing Pearson as a “socialist Darwinist” rather than a traditional “social Darwinist.” Why he goes to such length in making such a distinction is unknown, but it appears to have been done deliberately.

Porter does not refer to what, if any, connection the two men had, besides their mutual admiration of Galton. No letters between Pearson and Spencer have survived, although it seems almost impossible with the circles the two men frequented that they were unknown to one another. Pearson’s very particular views on those who preach social science without mathematical basis lends curiosity to what the relationship between these two great British thinkers was. Spencer and his theory seem to be exactly the sort of thing that Pearson warns against in *Reproductive Selection*. “It is needless to say that popular writers on sociological subjects almost invariably avoid definition and number when they apply

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<sup>58</sup> Porter, *Karl Pearson*, 282.

<sup>59</sup> *Ibidem*.

biological conceptions to civilised man.”<sup>60</sup> That remark is the glove drawn, awaiting the slap across the face of social science. And the duel is initiated as Pearson goes on to say, “Could they but realise how nearly insurmountable are the difficulties in the way of demonstrating the existence of natural selection in a population of, say, many thousand crabs, they would surely hesitate to base far-reaching moral theories on biological principles applied to man without a single numerical argument.”<sup>61</sup> He left no room for doubt—social science, by his calculation, was not a real science at all.

This is an interesting and daring stance for Pearson to take because in 1897 statistics was still a developing field itself. Recall that Pearson, on his blue plaque, is commemorated for being a “pioneer” statistician. He was one of the first of his kind, but clearly saw himself and his field as being superior to other developing disciplines. There is a parallel to be drawn here between Pearson and Galton, or more specifically eugenics itself. The word “eugenics” was not coined until 1883, making it another new and developing discipline at this time. But Galton envisioned it from the beginning as being a superior theory about superior beings.

But Pearson believed he knew how to fix that flaw. If statistics were added to social science, it would give it creditability and authority. Interestingly enough, this issue Pearson picked up on in the late 1800’s is one social science, as a discipline, still struggles with today. The social sciences, on the whole, are highly self-conscious and even a little hung up on the idea of “being taken seriously” and treated as a “real science.” The social sciences make a very conscious push to distinguish themselves from the humanities by way of quantitative methods. Pearson was at the cutting edge of what would become a trend that shaped a budding discipline in its infancy. It is important to remember that the social sciences,

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<sup>60</sup> Pearson, *Chances of Death*, 64.

<sup>61</sup> *Ibidem*.

sociology, psychology, economics, etc. were all coming into their own as disciplines in the mid-to-late 1800's. The term "social science" is generally attributed to Irish philosopher William Thompson in 1824, with French philosopher Auguste Comte (1798-1857) considered to be the first dedicated "social scientist," inspiring the later works of such renowned social thinkers as Karl Marx, John Stuart Mills, and Herbert Spencer.<sup>62</sup> Pearson, as a biostatistician, sought to combine math and biology, two "hard" sciences, but as a eugenicist he had to take into account social factors. Eugenics paraded as a hard science, but the truth is it was a social science, a fact that some key influences on the field, notably Spencer, were well aware of and used to their advantage.<sup>63</sup> This fact seemed equally a thorn in Pearson's side, but he would not concede defeat. Instead he strongly urged the social sciences as a whole, and eugenics specifically, to model themselves more after the hard sciences.

"Reproductive Selection" is the first essay in Pearson's collection that can be read and positively identified as "eugenic." While "The Chances of Death" and "The Scientific Aspect of Monte Carlo Roulette" both have eugenic angles, they are not necessarily "eugenic" essays. Their topics are broader and have wider applications. But there is no question what Pearson is intending with this essay. He writes, "Until we have careful statistical measures of the correlation between fertility and organic variation, it seems impossible to determine whether reproductive selection is an actual as well as a potential factor of evolution. It may, indeed, be a source of progressive change controlled, if not completely masked, by natural selection."<sup>64</sup> Eugenics, as Galton proposed it and Pearson

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<sup>62</sup> James Louis Webb, notes from lecture

<sup>63</sup> Bulmer, *Pioneer of Heredity and Biometry*.

<sup>64</sup> Pearson, *Chances of Death*, 66.

understood it, was “progressive change” within the human race. Pearson is asking here if that is indeed a natural process or one that requires the intervention of man to occur. Statistics, according to Pearson, is the key to discovering how best to improve the human species. Galton, also a biostatistician, perhaps with more emphasis on the “bio” than Pearson had, would have wholeheartedly agreed with this assessment.

Pearson comes to the conclusion that fertility is heritable and “it would seem that survival of the most fertile, rather than survival of the fittest, is very possibly now the keynote to evolution in civilised man.”<sup>65</sup> He urges that more statistical analysis is needed and soon, because reproductive selection was critical to ensuring that civilized man, and not the uncivilized savage with their frightening fertility and lack of proper restraint, would be the ultimate survivor of the species. This is the classic eugenic argument as we now know it. Importantly, it was not articulated by Galton, but by Pearson. It is Pearson who insists that reproductive selection, which included both the positive eugenics Galton originally advocated, as well as negative eugenics, which Pearson favors, is the key to human beings evolving into their next, more perfect, stage. This concept is innately racist. Pearson makes it clear that he, like Galton, believes that white, Anglo-Saxons were the superior race. Pearson was more radical in his political views than Galton, but they are definitely on the same page when it comes to race. In fact, Pearson is even more hardline in his racism than Galton was. At least Galton would allow for the possibility of exceptional individuals among people of color. Pearson seems intolerant of even giving them that much credit. He denounces them all as uncivilized savages, whose fertility needs to be controlled by the superior race. Pearson is talking about not only producing what he saw as perfected human beings, but genocide

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<sup>65</sup> Pearson, *Chances of Death*, 101.

without the explicit violence. When writing about the power of fertility he references it in terms of not allowing “lower types of life, or among races of uncivilised man” to survive and surpass the superior race.<sup>66</sup> The races of uncivilized man had already realized that fertility, not “fitness,” was the true key to success in evolution, jeopardizing the fate of humanity. Pearson makes the case that through reproductive selection and regulation of fertility the superior race, whites, should be increased and improved, and the inferior races should be eliminated.

Keep in mind that while this is Pearson’s vision, Galton’s hands are not entirely clean of it. Pearson publishes *Chances of Death* in 1897, when Galton is alive and well and still the top eugenicist in the world. He could have challenged or even condemned Pearson. He did not. To the contrary, the two men became closer than ever after 1897, meaning whether he said it directly or not, Galton gave his endorsement to Pearson’s far more radical vision of eugenics. The only thing Galton doubted about Pearson was the reliability of his curve splitting mathematics.<sup>67</sup> As Porter notes, “Eugenics emerged as a popular movement only in the new century. Pearson was among the earliest and most forceful of eugenicists, having warned of the danger of modern reproductive patterns even before 1900.”<sup>68</sup> 1897 is the date when Pearson, without question or reservation, gave himself over to eugenics. Arguably he had believed in its principles for even longer than that, but under other names and with other purposes. *Chances of Death* does not necessarily start as a eugenic text, but by its third essay that is what it becomes entirely.

The fourth essay in *Chances of Death* takes Pearson back to familiar ground. It is

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<sup>66</sup> Ibidem.

<sup>67</sup> Porter, *Karl Pearson*, 241.

<sup>68</sup> Porter, *Karl Pearson*, 279.

titled “Socialism and Natural Selection.” Here we see the wedding of Pearson’s politics with his science. Pearson opens the essay by talking about how the term “evolution” has been used and abused by members of the scientific community and the public alike. He claims that now the term was being used to make an argument against socialism, which was not its purpose at all.<sup>69</sup> In fact, according to Pearson, “true” evolutionary theory served as a proof for socialism, not against it. Pearson defined socialism in what would be seen as Marxist terms. And as with everything else, Pearson insists it can all be boiled down to a mathematical formula. And he evokes the authority of both Galton and Weldon as proof, “The movement started by Mr. Francis Galton, and ably developed by Professor Weldon and others, must end in the theory of evolution becoming a branch of quantitative science.”<sup>70</sup> Pearson goes on to insist, “The loose qualitative or descriptive reasoning of older biologists must give way to an accurate mathematico-statistical logic.”<sup>71</sup> Pearson’s doggedness that statistics are the zenith of logic and fact is both interesting and a little surprising considering how new a discipline statistics were at that time. Of course statistics are not actually as infallible as Pearson made them out to be. There is the phrase “figures do not lie, but liars figure,” meaning basically that you can manipulate statistical data to say virtually anything you want it to say. Pearson never even acknowledges that reality, let alone addresses it.

Considering that Pearson was not a biologist in any way, shape, or form, his condemnation of those who were, or at least those who wrote about evolution, biologist or otherwise, is also striking. He says, “While at the sources of knowledge vague descriptive reasoning is being succeeded by a more just quantitative theory of evolution, the innumerable

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<sup>69</sup> Pearson, *Chances of Death*, 104.

<sup>70</sup> *Ibidem*.

<sup>71</sup> *Ibidem*.

conduit pipes represented by popular writers and the press are still providing the public with a fluid so contaminated with the germs of muddle-headedness that it is little wonder if whole classes of the community are poisoned.”<sup>72</sup> Who exactly was Pearson attacking with this accusation? He calls out the press directly, but who were the “popular writers” that he mentioned but does not name? The man he goes on in “Socialism and Natural Selection” to target by name was Benjamin Kidd, the author of *Social Evolution* (1894). And Pearson goes after him ruthlessly. But he is not the only one Pearson picks apart in this essay. For the first time we see actual evidence of Pearson’s awareness of Herbert Spencer.

Spencer’s social Darwinism argues for much the same thing as Pearson’s socialist Darwinism, at least when it comes to racial superiority and the need to control the reproduction of inferior races and consequently “breed them out.” You would think the two would be in constant conversation, the way Galton and Spencer were, but “Socialism and Natural Selection” tells a different story. Pearson dismisses Spencer’s argument as short-sighted and lacking insight due to the fact that “he gives no statistics” and apparently “does not explain how A, B, C, and D will be in a better condition to survive in a struggle with an adjacent group E, F, G, and H if A and B, being well-endowed, have first killed off C and D, or reduced them according to their lesser merits to a state of ‘abject misery’.”<sup>73</sup> Was Pearson’s criticism of Spencer merely professional or did it run deeper? Given the evidence we have a case can be made that it did indeed go deeper.

The basis for this argument comes from examining the official biography of Galton that Pearson wrote and was published in 1914, *The Life, Letters and Labours of Francis Galton*. It is well known that Galton and Spencer were good friends and kept in constant

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<sup>72</sup> Pearson, *Chances of Death*, 105.

<sup>73</sup> Pearson, *Chances of Death*, 109.

correspondence.<sup>74</sup> Yet there is only one mention of Spencer in all 535 pages of Pearson's work and it is literally just a mention. Spencer's name appears, with no fanfare, in the résumé of Galton's life and labours, which is an index Pearson put at the beginning of his book. All the entry says is, "Herbert Spencer Lecturer, 1907."<sup>75</sup> That is it. None of the many letters written between Galton and Spencer are reproduced in the book. There is no mention of the men's great friendship with one another. Pearson snubs Spencer and erases him from the story of Galton's life, when Galton himself made sure to stress how important Spencer was to him in his autobiography.<sup>76</sup> Pearson himself appears roughly half a dozen times in Galton's autobiography, but Galton writes about him more formally, always referring to him as "Professor Pearson" and not in the friendly, familiar terms that he writes about Spencer.<sup>77</sup>

For example, Galton gives this story of Spencer in his memoirs:

I [Galton] replied that his [Spencer's] arguments were beautiful and deserved to be true, but it happened that the mouths of the ducts did not run in the valleys between the crests, but along the crests of the ridged themselves. He burst into a good-humoured and uproarious laugh, and told me the famous story which I have heard from each of the other two who were present on the occurrence. Huxley was one of them. Spencer, during a pause in conversation at dinner at the Athenæum, said, "You would little think it, but I once wrote a tragedy. Huxley answered promptly, "I know the catastrophe." Spencer declared it impossible, for he had never spoken about it before then. Huxley insisted. Spencer asked what it was. Huxley replied, "A beautiful theory, killed by a nasty, ugly little fact."<sup>78</sup>

Galton conveys his warmth and friendship with Spencer in these words. He also reveals that, in his opinion, Spencer was a man of beautiful ideas that were not always true. Galton respected Spencer more as a friend than an intellectual equal, giving credit but not weight to

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<sup>74</sup> For evidence of Galton's friendship with Spencer see: Francis Galton, *English Men of Science: Their Nature and Nurture* (London: Macmillan & Co., 1874), vii; Francis Galton, *Memories of My Life* (London: Methuen & Co., 1908), 258.

<sup>75</sup> Karl Pearson, *The Life, Letters and Labours of Francis Galton* (Cambridge: Cambridge University Press, 1914), xxi.

<sup>76</sup> Galton, *Memories*, 167, 178, 257-258, 292, 331.

<sup>77</sup> Galton, *Memories*, 283, 294, 304, 309, 320.

<sup>78</sup> Galton, *Memories*, 257-258.

his beautiful ideas.

Meanwhile, this is how Galton writes about Pearson in his autobiography:

Moreover, Professor Karl Pearson established a Biometric Laboratory in University College, where accurate computations are made, and whence a quarterly publication, *Biometrika*, is issued. It was established by him and Professor Weldon, whose untimely death has been a deep sorrow to many friends and a serious loss to the science of heredity. I also was nominally connected with *Biometrika* as “Consulting Editor.”<sup>79</sup>

Galton’s style of writing in this excerpt is completely different than in the previous one. It’s less jovial, and much less personal. Here he is not talking about men, Pearson and Weldon, whom he considered friends, like he did Spencer. Instead he is talking about colleagues, with a level of professionalism rather than intimacy. He does not describe Pearson’s work as beautiful, but instead seems to convey that it is necessary and true. Note his exact language, “accurate computations,” these were not just ideas that sounded nice, as he noted with Spencer. Pearson’s work, according to Galton, was factual and, from the tone he takes, impressive. Galton clearly thought as much of Pearson professionally as he did of Spencer personally, but the two were very different relationships, albeit both important in their own right.

But Pearson makes no mention of Spencer, either as a friend or contemporary to Galton, when he writes Galton’s official biography. There is no way such a huge oversight could have been an accident. It had to be intentional. There does not appear to be direct correspondence between Pearson and Spencer to prove what the nature of their relationship was, which in itself seems odd, because one can hardly imagine Spencer reading what Pearson wrote about him in *Chances of Death* and not having a response to give. Perhaps the conversation transpired between the two men personally and so there is no written record of

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<sup>79</sup> Galton, *Memories*, 320.

it. Or, more likely, the correspondence has been lost over time, not given priority by Pearson to be saved. Given the circumstance though it can be argued that the lack of correspondence says a lot. These were two men who in many ways shared a vision while at the same time refusing to see the bigger picture through one another's eyes.

Pearson concludes "Socialism and Natural Selection" by declaring, "If biology is very far from being in a position to lay down the dogma that socialism spells degeneration, it is still quite possible that the socialistic movement will react on biological science as it has already done on economic science."<sup>80</sup> Pearson is, of course, remarking on the impact made most notably by Karl Marx, but other socialist thinkers as well, had on the newly developing discipline of economics, which was just starting to define itself apart from political economy at the time. Pearson wanted to use what he deemed the superior logic of statistics to give added legitimacy to his special form of Darwinism, which married biological principles with socialist vision. This is what Porter meant when he said that Pearson was not a social Darwinist, like Spencer, but a *socialist* Darwinist. Truly his version of Darwinism was unique and while it never gained the fame or popularity that social Darwinism did, it would certainly influence the course of history through Pearson, because he would be the one to shape the course of eugenics into what it would become.

In his 1912 Cavendish lecture, titled *Darwinism, Medical Progress and Eugenics*, Pearson reaffirms a belief he clearly held for many years, going back to the days of the Men and Women's Club. Evolution and eugenics were a matter of public health. It is a theme he returned to again and again in his writing. This chapter opened with a quote from Pearson's

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<sup>80</sup> Pearson, *Chances of Death*, 138.

Cavendish lecture, but let us now take a step back and analyze not just the quote but the key line that comes before it:

The limits to the public health service seem for the time to be beyond our ken; we are only at the very beginning of the movement, and its possibilities are enormous, and in one sense or another every man in that service is concerned with what makes for the racial efficiency of future generations — he must nolens volens become a eugenicist.<sup>81</sup>

Eugenics is the key to solving the public health crisis Pearson sees as Victorian England's greatest plight, a plight that he had personally been trying to solve since his days as a student at Cambridge. He tried attacking it from the angles of gender and politics, only to find that both were pieces of a greater whole. That whole, Pearson concluded, was his rather militant variety of eugenics. Eugenics in the negative, rather than the positive as Galton mostly preached throughout his life. The eugenics that would be accepted around the world and credited to Galton, was really Pearson's vision.

Pearson goes on in his lecture to explain just what he means by eugenicist:

I do not understand by eugenicist one who desires to segregate the mentally defective or prohibit the epileptic from parentage, although I might sympathise with both those attempts to improve the racial quality of future generations. No, I am thinking of something far wider and broader than this! The public health service brings a man right up against the fundamental biological problems of society.<sup>82</sup>

Here we see not a departure from Pearson's earlier works but an evolution of them. He has gone from insisting on mathematical proofs to his theories to arguing for the biological application of them. As a biostatistician, this was not a huge leap for Pearson. His statistics, at least since he met Weldon and Galton, always had a degree of biology in them. But unlike Galton, Pearson was in no way medically trained. Yet by this point in his career Pearson felt emboldened enough to lecture to medical professionals about how to do their jobs, because

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<sup>81</sup> Pearson, *Darwinism, Medical Progress and Eugenics*, 3.

<sup>82</sup> Pearson, *Darwinism, Medical Progress and Eugenics*, 3-4.

he believed there was something that he could offer them. Legitimacy, authority, the proof needed to take a social theory and apply it as a science.

1912 was a pivotal year. Placing it within historical context, it was on the eve of the outbreak of World War I in Europe. Major changes were coming to Europe, as a whole, and had already taken root in Britain. The country's culture had changed from Victorian to Edwardian, and this brought some fundamental changes in worldviews. "Within Edwardian eugenic rhetoric, however, what the Victorians had perceived as vicious moral habits that were responsible for the squalid lives of the poor and the destitute were now understood to be hereditary traits and were linked together with other traits believed to be 'inborn errors of metabolism' such as mental retardation."<sup>83</sup> This change was a striking one and eugenics, which had clearly been born of a Victorian mindset, had to now be adapted to suit this new era of thinking. The President of the Eugenics Society, Leonard Darwin, Charles Darwin's grandson, made an address to the Cambridge Eugenics Society in 1912 that articulated the guiding principles of British eugenics, a strange mixture of old Victorian classism and new Edwardian science, saying in part, "The poorest classes, though containing many persons of the highest excellence in every respect, do nevertheless contain a larger proportion of the naturally unfit than do the richer classes... [It is] consistent with known facts to hold that to the presence of the naturally unfit, with their want of self-control the great fertility of the poorest classes ought in large measure to be attributed."<sup>84</sup> Pearson agreed that the fertility of the lower classes, as well as racial inferiors, needed to be regulated, while endorsing and encouraging eugenic marriages and increased fertility among the "fit."

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<sup>83</sup> Dorothy Porter, "Eugenics and the Sterilization Debate in Sweden and Britain Before World War II." *Scandinavian Journal Of History* 24, no. 2: 148. *Academic Search Premier*, EBSCOhost (Accessed May 7, 2018).

<sup>84</sup> *Ibidem*.

1912 was the year the first International Congress of Eugenics met in London. It was the year that what started as a British intellectual phenomenon became a global medical project. And, oddly enough, it was the year Britain was trying to play catch up with the United States of America. The first eugenic sterilization law in the world had been passed in the state of Indiana in 1907, but by 1909 the state's new governor had put a stop to the process, initiating a long court battle, which he would temporarily win in 1921.<sup>85</sup> But the United States had officially surpassed Britain, birth place of eugenics, as the place where eugenics ruled as law. Now Pearson, Galton's successor, was trying to make up for lost ground. His lecture to the medical professionals of Britain was to urge them into action as the Americans had already done, as was now being done all over the world. Britain had originally been on the cutting edge of eugenics, but by 1912 it no longer was. Pearson's purpose was to put Britain back into a position of leadership among the world.

“But in the public health the medical man must see individuals in the mass,” Pearson argued to his audience. It was their job to make use of the vast quantities of eugenic data collected by biostatisticians such as Galton and Pearson himself to identify populations of “racially inefficient – congenital cataract, defective teeth, epilepsy, feeble-mindedness, evidence of active or healed tuberculous lesions” and “treat” them as the public health hazard they truly were.<sup>86</sup> But Pearson acknowledges that the medical profession in Britain was currently being prevented from fulfilling the true promise of eugenics by the government. Doctors needed to become political, as Pearson himself had, in order to demand they be allowed to do their jobs to the fullest.

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<sup>85</sup> Lutz Kaelber, *Eugenics: Compulsory Sterilization in 50 American States (Indiana)*, University of Vermont, <http://www.uvm.edu/~lkaelber/eugenics/IN/IN.html> (Accessed May 6, 2018)

<sup>86</sup> Pearson, *Darwinism, Medical Progress and Eugenics*, 4.

They also needed to recognize that their medical training was not always enough to confront the problems eugenics revealed:

The public health service, in the wide sense in which I am dealing with it here, is relatively new; it brings its officers into contact with a whole set of new problems, often social and economic in character, frequently actuarial and statistical rather than medical. No provision has so far been made for training the public health service to deal with problems of this character. It is almost piteous to see how the reports of medical officers of health and of school medical officers grope towards solutions of nationally important medico-social problems.<sup>87</sup>

Here we see Pearson's faith in statistics and mathematics as the language of truth. Truth that could speak to even the greatest of authorities, truth that gave Pearson the right to lecture those in the medical field about how they should be doing their jobs. Truth that made eugenics something more than just medicine as it was being applied. Eugenics as Pearson conceived of it was a science, but one able to tackle the problems of society, a true social science. Medicine needed the guidance of men like Pearson, who fluent both in the language of evolution and mathematics.

"Now I would ask you whether it is better that this material should perish, or that it should pass through the hands of laymen who at least have requisite statistical training to analyse it?"<sup>88</sup> Here Pearson is purposing cooperation between the medical professionals and intellectuals like himself. Neither could tackle the immense social problems highlighted by eugenics, because they were problems of both science and society, which called for an equally encompassing answer. Medicine and mathematics needed to work together. The doctors he lectured to and men like Pearson needed one another if they were going to fulfill the promise of eugenics. Such complex problems called for an interdisciplinary approach, which is how Pearson always conducted himself intellectually, not just as a statistician, but as

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<sup>87</sup> Pearson, *Darwinism, Medical Progress and Eugenics*, 7.

<sup>88</sup> Pearson, *Darwinism, Medical Progress and Eugenics*, 8.

a man of overall learning. He of all people understood how disciplines could be brought together, focusing on their strengths and allegedly disregarding their weaknesses.

These are Pearson's closing remarks to the Cavendish lecture:

Be this as it may, I am certain there is from the racial standpoint a divergence between the conception of natural selection and the progress of medical science; I see only one way of bringing the two into harmony. If we suspend—as we all agree we ought to suspend—the stringent selection of the living, then we can only progress as a race, mentally and physically, by a stringent selection of parenthood; we must resolve that the fit shall not only be parents, but have a fertility which entirely dominates the fertility of the unfit. Unless we have a firm belief that man differs *in toto* from every other type of life with which we are acquainted—and there is no basis for such a belief in our experience of the influence of environment on man—then the acceptance of the eugenic standpoint is, I am convinced, the only way in which we can safely reconcile medical progress with racial progress.<sup>89</sup>

He goes on to say just using medicine to intervene and reduce the infant death rate, as some medical professionals suggested, was not enough to guarantee racial betterment. That would only act as a counterbalance to nature, not shift the scales in their favor. Medicine had to play a more active role. Eugenics could no longer afford to be a passive idea. It must become, like it had in the United States, an active policy, one with the support of the medical community as well as intellectuals like Pearson and Galton. This was the beginning of a new frontier of eugenics, the change from a mere theory to an applied science.

One year after Pearson's Cavendish lecture, the Mental Deficiency Act of 1913 passed British parliament. It established a governmental agency to oversee provisions and care allotted to people deemed mentally and morally "unfit." But while it might have seemed on the surface as a victory for eugenicists such as Pearson, it really was not. The Mental Deficiency Act only allowed for the segregation of the mentally ill and disabled in state run institutions. There was no prohibition on marriage for the mentally "unfit," which eugenicists

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<sup>89</sup> Pearson, *Darwinism, Medical Progress and Eugenics*, 29.

tried to have added to the act.<sup>90</sup> There was no provisions for coerced sterilization of the institutionalized, as there was in the United States. The success of British eugenicists like Pearson in the years leading up to World War I was minimal. It would not be until after the Great War and its devastation that eugenics would really take off as the global movement Pearson always envisioned it as.

Karl Pearson was no ordinary eugenicist. He was a man before his time. He saw even before Galton the true promise and power of eugenics. While he is remembered today for his contributions to statistics, his legacy is far darker than that. Pearson was clearly the bold champion of eugenics that Galton never had the stomach to be. He was confrontational, absolutely dogged in his beliefs, and of the means to disseminate his research, while at the same time battling to try and silence competing theories. It is ironic in many ways that the man who was a political and even social dissent in many respects, would become the one to take eugenics from the fringes and make it mainstream. Pearson, through his publications and with his statistics, made the case for eugenics better and stronger than Galton ever did. And while he may not have been historically credited for the all the heavy-lifting that he did in taking an idea and turning it into an applied science, his role in eugenics becoming the movement it did was essential.

Galton is remembered worldwide as the founder of eugenics. Pearson is less well remembered for his essential role in eugenics, but he is still a famous figure particularly among British intellectuals. But who in America remembers or knows who Charles B. Davenport was?

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<sup>90</sup> Porter, "Eugenics and the Sterilization Debate in Sweden and Britain Before World War II." 149. (Accessed May 7, 2018).

## CHAPTER 3

### “THE HIDDEN FIGURE”: THE LIFE OF CHARLES B. DAVENPORT AND TRANSATLANTIC JOURNEY OF EUGENICS

*The American Eugenics Society is undertaking to organize education in eugenics and to bring together all of those who are interested in the application in America of eugenical principles and ideals.* ~Charles B. Davenport<sup>1</sup> (1926)

At his prime, Charles Benedict Davenport (1866-1944) was both a scientist and a socialite. A search through his vast collection of personal papers turns up scores of invitations from prestigious intellectual societies, diplomatic dinners, and high society galas and gatherings. One invitation from the London based *Town and Country Review* in 1936 says it all, “Dear Sir, we are publishing a series of biographies of leading men and women of the day, and with your kind permission, we should like to include your name as representative of your particular sphere of life.”<sup>2</sup> In his day the name of Charles Davenport was more than known, it was respected, even revered. Some would go so far as to call him a visionary. He was a man of great importance and influence and he used both to promote the cause of eugenics in the US. Davenport is best known for having been the director of Cold Spring Harbor Laboratory, located in New York, but that was not his only position of leadership. He was involved with the American Breeder’s Association, vice president of the American Eugenics Society, and founder of the Eugenics Record Office. For several decades, Davenport had the ear of some of the most powerful people in the nation, including

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<sup>1</sup> Charles B. Davenport Papers, American Eugenics Society – Folder 1, 1925 December-1927 January 3, B: D27, Sec. I Professional Papers, American Philosophical Society, Philadelphia, Pennsylvania.

<sup>2</sup> Charles B. Davenport Papers, Autobiographical - Folder 3, 1930-1940, American Philosophical Society, Philadelphia, Pennsylvania.

politicians and numerous deep-pocketed donors ready and willing to finance him and his projects. But who today even knows who Charles Davenport was? How did a man of such contemporary prominence fade into historical obscurity?

The historical picture painted of Davenport and his deeds is bleak. Journalist Matt Ridley wrote, “Yet this well-intentioned road [of Davenport’s] led many countries to the forced sterilization, and in some countries, to the murder, of millions of people.”<sup>3</sup> This is the legacy of Charles Davenport. It is a legacy that only a few academics still seem to care about. Current secondary sources written about Davenport are few and far between. The only recent publication of the man and his work is *Davenport’s Dream*, which walks a very fine line in trying to be as unbiased and nonjudgmental as possible in its portrayal of Davenport. This chapter seeks to answer two questions: who was Charles Davenport and what is an accurate account of his deeds and motivations? It is easy to demonize Davenport based on the brand of eugenics he developed. Galton and Pearson have both already shown us, however, the complexity of thought and experience behind eugenics as a concept. Based on their histories, Davenport too needs close examination.

Galton was the father of eugenics. Pearson was the developer of it. Davenport was both the importer and exporter of eugenics. He was the man responsible for taking eugenics from the intellectual circles of England and making it the topic of discussion, not just among American elites like himself, but among the everyday man and woman. The only academics today who write about Davenport, Jan A. Witkowski and John R. Inglis being the two most prominent, are associated with Davenport’s lifelong, former employer, Cold Spring Harbor Laboratory. There are older works, however, such as historian Daniel J. Kevles’s *In the*

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<sup>3</sup>Jan A. Witkowski and John R. Inglis, ed. *Davenport's Dream: 21st Century Reflections on Heredity and Eugenics* (Cold Spring Harbor, NY: Cold Spring Harbor Laboratory Press, 2008), ix.

*Name of Eugenics* (1985) that prominently feature Davenport, although he is not the central figure of the book. Kevles's work was not commissioned by Cold Spring Harbor Laboratory and gave a far more balanced, and critical account of Davenport. Witkowski, Inglis, and others who now write about Davenport for Cold Springs Harbor Laboratory dissociate the less socially acceptable parts of Davenport's "well-intentioned" dream from the stark reality of what it turned into. This history will argue that such a divorce is impossible. If Charles Davenport is to be remembered, and he most certainly should be, then he must be remembered in whole, in total, for all of the many moving and complex pieces of his vision both the well intentioned and the inexcusably ugly.

There is nothing unusual about this. Galton and Pearson were complicated men who could not, fairly, be judged as either heroes or villains. *Both men* arguably desired to help and advance human society. *Both men* were progressive in the sense that they focused on a glorious future, which *both* were sure they were on the verge of unlocking with eugenics. At the same time, however, *both* men were unquestionable elitists and *both* appeared to have been staunch racists, with Galton's writings from Africa certainly proving that point in his particular case. He clearly saw people of dark skin as being inferior. Davenport was even more of a vocal racist than Galton, being one of the promoters of an idea we now refer to as "scientific racism," which was an attempt to prove white superiority through scientific methods. Davenport corresponded extensively with Madison Grant (1865-1937), considered by historians such as Jonathan Peter Spiro and Edwin Black to be the foremost figure in the scientific racism movement in the twentieth century.<sup>4</sup> Davenport himself authored a book in

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<sup>4</sup> See Jonathan Peter Spiro, *Defending the Master Race: Conservation, Eugenics and the Legacy of Madison Grant* (Lebanon, NH: University Press of New England, 2009) and Edwin Black, *War Against the Weak: Eugenics and America's Campaign to Create a Master Race* (New York: Four Walls Eight Windows, 2003).

1929 about Jamaica and the dangers of miscegenation, or the mixing of the races.<sup>5</sup> He selected Jamaica for his case study due to its racial diverse population. The results of his study, *Race Crossing in Jamaica*, were exactly what Davenport expected to find; whites were superior, blacks were inferior, and those of mixed race, whom he referred to as “brown,” were degenerate.<sup>6</sup> Nowhere mentioned in the book *Davenport’s Dream* is Davenport’s obsession with developing a way to quantitatively measure the degradation he believed was caused by miscegenation.

*History* must remember Charles B. Davenport, not as a hero, or a villain, but as a man who fundamentally shaped and changed the world, both for better and for worst. Davenport was the promoter and propagator of eugenics. He made “eugenics” a household word first in America and later throughout the world. The eugenics of Galton, and even Pearson, was first and foremost an idea. It was passive, although both men did conduct experiments and run statistics to try and prove the idea true. But the eugenics of Davenport was an applied and popular “science.” It was active. Davenport took an idea and turned it into a true movement.

Who was Charles Benedict Davenport? Only one comprehensive biography has been written about him, by his former colleague, E. Carleton MacDowell (1887-1973). MacDowell worked with Davenport for almost 30 years at the Cold Springs Harbor Research Laboratory, where Davenport was head researcher for the majority of his career. Cold Springs Harbor is still an active scientific research laboratory to this day.<sup>7</sup> The laboratory was

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<sup>5</sup> Aaron Gillette, *Eugenics and the Nature-Nurture Debate in the Twentieth Century* (New York: Palgrave Macmillan, 2007), p. 123-24.

<sup>6</sup> Charles Davenport, *Race Crossing in Jamaica* (Washington, D.C.: Carnegie Institution, 1929).

<sup>7</sup> On its website it claims to have “shaped contemporary biomedical research and education with programs in cancer, neuroscience, plant biology and quantitative biology. Home to eight Nobel Prize winners, the private, not-for-profit Laboratory employs 1,100 people including 600 scientists, students and technicians.” For more information see Cold Spring Harbor Laboratory, *About Us*, <https://www.cshl.edu/about-us/> (accessed March 26, 2019).

founded in 1890.<sup>8</sup> Davenport became the director of Cold Springs Harbor in 1904 after a two-year campaign to secure funding from the Carnegie Institution of Washington for his new position and to turn the laboratory into a full-time research institute (it began strictly as a summer school).<sup>9</sup> Davenport would be associated with Cold Springs Harbor in some form or another for the rest of his life, although he had many other projects and served on a dozen different boards, committees, and associations. MacDowell's original biography was written only 2 years after Davenport died and paints an incredibly intimate portrait of Davenport, both professionally and personally, from someone who knew all sides of the man well.<sup>10</sup> The actual biography, however, went out of print in the 1970's, apparently due to lack of interest on the part of the public to read about Davenport.<sup>11</sup> A biographical essay, written by editor Jan A. Witkowski, is included in *Davenport's Dream* and based heavily on MacDowell's biography, which Cold Spring Harbor has one of the only known existing copies of. Witkowski also references a biographical article written by Oscar Riddle (1877-1968) in 1947 for the National Academy of Sciences. This article is only sixteen pages long, not including indexes and references. It was written as a memorial tribute to Davenport and according to Witkowski is informative, but not as detailed or personal as MacDowell's biography.<sup>12</sup>

Davenport was born June 1, 1866 and was the youngest of his parents' eight children. Here we find a parallel between Davenport and Galton. Both came from large and

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<sup>8</sup> Witkowski and Inglis, *Davenport's Dream*, 41-45.

<sup>9</sup> Ibidem.

<sup>10</sup> Witkowski and Inglis, *Davenport's Dream*, 36.

<sup>11</sup> It is now considered a rare book and it is almost impossible to obtain a copy of the work. WorldCat only found two results in the United States for MacDowell's book, both located roughly a thousand miles away and neither circulating. A research trip to read the biography was attempted, however, funding could not be secured before Covid-19 restrictions made all research travel prohibited.

<sup>12</sup> Ibidem.

established families. Coincidentally they were also the youngest of their respective families. Davenport was born at Davenport Ridge, a farming estate near Stamford, Connecticut, which had been owned by his father's family for five generations by the time of Charles's birth.<sup>13</sup> The Davenports were not Quaker stock like the Galtons, but were instead an old Puritan family, some of the first English settlers in what would become America. Indeed, Davenport, like Galton, was also "well-born." But when it came to his relationship with his parents, Davenport parallels Pearson, not Galton, who had a very close relationship with his father. Pearson rarely mentioned his father, painting the portrait of a hardworking, but emotionally distant man, much like others would likely have described Pearson later in his life. Davenport, apparently, made it clear though that his father, Amzi actively disliked his many children (he had 11 in total, between his two marriages). "MacDowell writes that Davenport's father accepted the 'stern repressive teachings of his Puritan ancestors...with reactionary enthusiasm,' and he regarded his children as 'the source of great displeasure.'"<sup>14</sup> Not surprisingly, Davenport, like Pearson, developed a close relationship with his mother, Jane. She was described by MacDowell as providing the "only tender love" Davenport experienced in his family and is credited with first inspiring her son's interest in biology. In fact, Davenport chose to dedicate his first book, *Experimental Morphology* (1897), to his mother.<sup>15</sup>

Davenport's papers are housed at the American Philosophical Society, in Philadelphia, Pennsylvania. Over ninety boxes of material have been amassed, everything from correspondence (which makes up the majority of the collection) to newspaper and

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<sup>13</sup> Witkowski and Inglis, *Davenport's Dream*, 36-37.

<sup>14</sup> Witkowski and Inglis, *Davenport's Dream*, 37.

<sup>15</sup> *Ibidem*.

magazine clippings, to young Davenport's personal diaries. The oldest of these diaries is from 1878, when Davenport was 12 years old. This was the same year he started working in his father's office as a general office boy and janitor for the meager sum of 25 cents per week. This was a paltry wage even back then.<sup>16</sup> Davenport's diary from that year is nothing remarkable. He mostly made observations of the weather, bemoaned his interactions with his father, and looked forward to special occasions that allowed him to go visiting.<sup>17</sup> Despite being homeschooled until the age of 13 and thus mostly interacting with his own family, even at the age of 12, Davenport showed keen interest in socializing and the prospect of being able to communicate with others. He was a born social butterfly, which would certainly serve him well later in his life. He also showed an interest in natural history and the developing field of biological science from an early age.

Davenport was a bird watcher and kept daily observations on the weather in his diaries. He sent his bird and weather reports to the American Ornithological Union and the U.S. Signal Corps.<sup>18</sup> The American Ornithological Union does currently offer family memberships, however, it is mostly geared towards students at the collegiate level and professionals in the field. It did not have that option in Davenport's time and having a teenager submit reports has likely never been a common occurrence. Surely the U.S. Signal Corps, which is a branch of the United States Army founded just before the Civil War and responsible for weather forecasting and aviation, among other things, is not today open to most civilians and especially not juveniles. It may have been more open to the civilian population in Davenport's time, but still young Davenport's involvement with these two

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<sup>16</sup> Ibidem.

<sup>17</sup> Charles B. Davenport Papers, Diaries 1, 1878-1879, American Philosophical Society, Philadelphia, Pennsylvania.

<sup>18</sup> Witkowski and Inglis, *Davenport's Dream*, 37.

groups was highly unusual, even for his time. In his unfinished, unpublished autobiography, Davenport briefly reflected on his childhood although not to the same degree of introspection as Galton in his autobiography. It is unknown when exactly Davenport started writing his autobiography, or if he had a publisher lined up for it. The manner of Davenport's writing leaves open the question of whether he actually meant it for publication or wrote it for his own personal reference. It is modeled very much like Galton's autobiography, which undoubtedly Davenport was well familiar with, however, it does not appear to be fluid account of his life. What survives of it at least jumps around quite a bit from different points in his life. And the style in which it is written is highly reminiscent of his childhood diaries. This could possibly be accounted for by it being a very rough and incomplete draft or it is possible that Davenport never intended it to be read by anyone but himself. He made sure to note his childhood interest in science in it though. Davenport recalled that "At the age of about 9 or 10 years (I) was secretary of a juvenile natural history society which maintained a museum in a room on the top floor of my grandmother's house... From 11 to 13 years edited the 'Twinkling Star,' an amateur monthly. At about 14 or 15 years made a rather extensive collection of insects and was recorder of meteorological phenomena for the United States Department of Agriculture; also recorder of bird migration."<sup>19</sup> The records of bird migration mentioned in that excerpt are an example of the observations found in his juvenile diaries and written in similar style. There is no embellishment of thought in Davenport's autobiography as it is in such a rudimentary form with just the plain facts directly stated. His personal correspondence shows that Davenport could have written a far better account, although he admittedly did not have the personal flair of Galton. He goes into very few details in his

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<sup>19</sup> Charles B. Davenport Papers, Autobiographical 1, 1916-September 26, American Philosophical Society, Philadelphia, Pennsylvania.

autobiography draft, so it is unknown who or what inspired him to start cataloging the natural world at such a young age. It is worth noting though that for the rest of his life Davenport would record his frank observations and maintain a meticulous regiment of tracking patterns and changes in the natural world.

Davenport started school in 1879, attending the Brooklyn Collegiate and Polytechnic Institute in New York.<sup>20</sup> He found himself initially behind his peers due to his apparently unstructured homeschooling, but he studied hard to make up the difference and by the end of high school he ranked top in his class. He continued working in his father's office while in school and to work as a farm hand back at Davenport Ridge during the summers--which he typically took off from school.<sup>21</sup> In his last year of college, Davenport wrote his father a twenty-page letter, describing in detail the course work he wanted to do during the summer. He insisted that his studies would be to the benefit of not only him, but to his father and the farm. The tone of the letter implies that the nineteen-year-old Davenport knew that his plans would not be welcomed by his father. Amzi responded in a far less verbose and more forceful way and firmly rejected his son's arguments. He is quoted as having said to Charles, in response to his declaration that his studies would be helpful to all parties involved that, "you are too theoretical," and "the question of prime importance is how much money you can make for yourself and for me."<sup>22</sup> It would seem that Amzi did not place the same value on education as Galton's father, Tertius, which may be explained by the two men's different religious backgrounds. To understand those differences, a wider analysis of the backgrounds of Charles Davenport's parents, Amzi and Jane is necessary.

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<sup>20</sup> Witkowski and Inglis, *Davenport's Dream*, 37.

<sup>21</sup> *Ibidem*.

<sup>22</sup> Witkowski and Inglis, *Davenport's Dream*, 38.

According to Daniel J. Kevles, Amzi Davenport was a former teacher, before becoming a successful real estate and insurance broker.<sup>23</sup> He was also an activist, first as an abolitionist before the Civil War and later as an advocate of the temperance movement.<sup>24</sup> This meant that Amzi was an educated man in his own right, however, he saw his education as being a pragmatic one. Charles Davenport envisioned his education as a means to escape from his father's practical, laborious world.<sup>25</sup> And his mother, Jane, supported him in his dreams. She came from a well-to-do family; her grandfather was a wealthy judge and her father was a prominent builder in New York City.<sup>26</sup> While Amzi considered himself an adequate teacher for his own children, Jane disagreed, insisting that her children be formally educated through college. According to Kevles's Jane Davenport was, "Self-confident, easy in her piety to the point of religious skepticism...openly affectionate and...pursued serious interests in French, gardening, and natural history."<sup>27</sup> The many ways in which she influenced Charles Davenport is clear, in addition to why he dedicated his first book to her.

The difference between Amzi Davenport and Tertius Galton creates an interesting analogy linked to the foundations of their respective religions. Dating back to the Protestant Reformation in England, Puritans valued literacy and were typically well-educated because literacy was strongly advocated was so that everyone in the community could read and interpret their Bibles for themselves. It was the Puritans, after all, who made famous the adage from the King James Version of the Bible, "idle hands are the devil's workshop."<sup>28</sup> Puritans believed that hard work and success were the only earthly measures of Heaven given

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<sup>23</sup> Daniel J. Kevles, *In the Name of Eugenics: Genetics and the Uses of Human Heredity* (New York: Alfred A. Knopf: 1985), 49.

<sup>24</sup> *Ibidem*.

<sup>25</sup> Kevles, *In the Name of Eugenics*, 50.

<sup>26</sup> *Ibidem*.

<sup>27</sup> *Ibidem*.

<sup>28</sup> Proverbs 16:27 KJV.

to humanity. Hard work did not earn Heaven, but a hardworking and successful man was a sign that he was destined for Heaven. Failure, especially financially, was seen as a sign of moral weakness and corruption.<sup>29</sup> Amzi, like his Puritan ancestors, wanted his son to be more practical, less theoretical, and more concerned with becoming a financial success than an academic one. Meanwhile Quaker beliefs shaped Galton's father, Tertius. The focus and beliefs of the Quakers was originally different from those of the Puritans. They shared the belief that individuals should be able to read and interpret the Bible for themselves, not through the medium of the clergy. From their British origins a strong intellectual aspect was present to Quaker society.<sup>30</sup> Practicality was, of course, encouraged among Quakers, but it was not treated as a sacred sign as it was by the Puritans. There was virtue in education and philosophy, not only hard work and financial success.

It is true though that after coming to America, the two groups grew closer together rather than becoming more distinct. In America, Puritans and Quakers came together with other Protestant sects to all become Congregationalists. The Protestant work ethic, to be discussed further in depth in chapter four, was adopted by all Congregationalists, as was education. Amzi wanted financial success for his son, but he was himself still at one time a teacher, showing that he himself recognized the importance of education. Galton, however, being British would have had a slightly different cultural inheritance as British Quakers remained their own distinct sect.

Yet despite the differing religious backgrounds of their families, Galton and Davenport shared much in common personally. Like Davenport, one of Galton's early

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<sup>29</sup> Francis J. Bremer, *Puritanism: A Very Short Introduction* (Oxford: Oxford University Press, 2009).

<sup>30</sup> H. Larry Ingle, *First Among Friends: George Fox and the Creation of Quakerism* (Oxford: Oxford University Press, 1996).

scientific fascinations came from bird watching.<sup>31</sup> Both men were heavily invested in their education. Both also made career changes early in their lives; Galton while still studying in school and Davenport not long after graduating with his first degree. What perhaps made Galton and Davenport such influential men in their times though, were their social skills and their extroverted temperaments. Both men were not only respected scientists, but highly sought-after socialites. This is a trait that Galton and Davenport shared, which Pearson, who was a dedicated academic with little or no use for socializing, most certainly did not. This distinction could not have been expressed any stronger than by Pearson's own words to Davenport in a brief and biting letter dated April 23<sup>rd</sup>, 1928. After having been extended an invitation by Davenport to attend the International Institute of Eugenics, Pearson replies sharply, "Our mission here seems to be to work on quietly in our own way without taking part in Congresses or discussion gatherings, which are little more than excuses for holidays and tea-parties."<sup>32</sup> Admittedly Davenport's nerve addressing such an invitation to Pearson was more than a little impertinent given their tumultuous history.

Originally Davenport's concept of eugenics was far more in line with Pearson's than Galton's and that was all well and good, as long as Davenport "knew his place" in Pearson's grand scheme of things. But the moment the ambitious young American challenged Pearson, their relationship, once very cordial, froze over solid. Pearson did not tolerate dissent, especially from people whom he deemed beneath him, which were admittedly most people, as Pearson was a known and proud elitist. But at the beginning of Davenport's journey into eugenics, he and Pearson were of a like mind. Pearson's road to eugenics was a statistical

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<sup>31</sup> Nicholas Wright Gillham, *A Life of Sir Francis Galton: From African Exploration to the Birth of Eugenics* (Oxford: Oxford University Press, 2001), 26.

<sup>32</sup> Charles B. Davenport Papers, Pearson, Karl, "Letter Dated April 23, 1928," B: D27, American Philosophical Society, Philadelphia, Pennsylvania.

one. His experiments were based solely on the numbers. Davenport also utilized statistics and was initially devoted to them, to the point that he became the American voice of Pearson's statistical journal, *Biometrika*. Davenport would continue to keep track of statistics of thousands of individuals across the country through his Eugenics Record Office (ERO), but Davenport was not content with collecting such data alone and that is where he and Pearson would part ways. Davenport wanted to turn eugenics into an applicable science, something that he did not believe statistics alone could do. It would become his mission to take the numbers, in addition with other knowledge to be later discussed, and combine them to create a "science" capable of implementing public policy.

Davenport did not allow his father's disapproval of his studies to stop him from further pursuing his education. He graduated with his B.S. degree in civil engineering from the Brooklyn Collegiate and Polytechnic Institute in 1886.<sup>33</sup> The 20 year-old graduate eagerly applied for any and all jobs within the field of science that he could find but without any luck. He wrote a letter to the journal *Science* in 1886 in which he expressed his discouragement, "I thought myself fitted for investigation in scientific fields, particularly as I love it above all else. In every case I received answer, 'Places all full.' I have begun to doubt if investigators and workers are needed in the natural or experimental sciences."<sup>34</sup> For a brief time, nine months during 1886-1887, Davenport resigned himself to working as a surveyor on the Duluth, South Shore and Atlantic Railroad in Michigan, but never enjoyed the work.<sup>35</sup> He quit in September 1887 and matriculated that same month at Harvard University.<sup>36</sup> It was

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<sup>33</sup> Witkowski and Inglis, *Davenport's Dream*, 38.

<sup>34</sup> *Ibidem*.

<sup>35</sup> Cold Spring Harbor Laboratory Archives, *Charles B. Davenport*, Cold Spring Harbor Laboratory, <http://library.cshl.edu/personal-collections/charles-b-davenport>. (Accessed April 14, 2019).

<sup>36</sup> *Charles B. Davenport*, <http://library.cshl.edu/personal-collections/charles-b-davenport> (Accessed April 14, 2019).

at Harvard where Davenport really started to flourish.

At Harvard Davenport took every course in natural history that was offered. Davenport's featured biographical page, on Cold Spring Harbor Laboratory's online archives, claims that Harvard zoologist E.L. Mark was a major influence on Davenport.<sup>37</sup> He completed an undergraduate degree at Harvard in 1889 and worked that summer at the biological station at Woods Hole, Massachusetts. He would go on to earn his doctorate in 1892, winning prestigious scholarships along the way, and spending his first summer at the Biological Laboratory at Cold Spring Harbor in 1890.<sup>38</sup> From 1891 till 1899, Davenport served as an instructor at Harvard, teaching both introductory and intermediate zoology. He must have been trusted in his role and considered an authority in his field, because in 1893 he was allowed to create and teach his own course, Experimental Morphology, which included statistical and experimental studies of variation in populations, as well as individual variation, mutations, and various types of heredity.<sup>39</sup> The course was considered a success, with Davenport writing a two-volume accompanying textbook. This work would be Davenport's entry point into Pearson's world of biometry.

Davenport became one in a field of outstanding, young, American scientists applying statistics as a way to express variation to emerging sciences such as physiology, embryology, and, of course, the hot topic of the time, evolution. This made him a contemporary of such men as E.G. Conklin (1863-1952), R.G. Harrison (1870-1959), H.S. Jennings (1868-1947), F.R. Lillie (1870-1947), T.H. Morgan (1856-1945), and E.B. Wilson (1856-1939).<sup>40</sup> In 1899,

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<sup>37</sup> Charles B. Davenport, <http://library.cshl.edu/personal-collections/charles-b-davenport> (Accessed April 14, 2019).

<sup>38</sup> Witkowski and Inglis, *Davenport's Dream*, 38.

<sup>39</sup> Witkowski and Inglis, *Davenport's Dream*, 39.

<sup>40</sup> *Ibidem*.

Davenport would publish arguably his most successful book, *Statistical Methods: With Special Reference to Biological Variation*. This book would be critical in introducing American scientists to the quantitative methods advocated by Galton and Pearson.<sup>41</sup>

During this time of academic success and achievements, Davenport also experienced significant development in his personal life. While teaching at Harvard's Annex, Davenport met Gertrude Crotty (1866-1946). Crotty had her M.A. from the University of Kansas and also taught at the Annex. In the summer of 1893 the two attended Alexander Agassiz's marine biological laboratory in Newport, Rhode Island.<sup>42</sup><sup>43</sup> Davenport and Crotty's courtship seemed to be a sure and certain thing. The two married in June 1894 and welcomed their first daughter, Millia Crotty Davenport, into the world on March 30<sup>th</sup>, 1895.<sup>44</sup> According to MacDowell, Davenport needed a "level-headed person to hold him steady and take charge of mundane affairs" and Gertrude not only did that, but provided Davenport with devoted companionship and even helped him in his research, publishing several papers on human genetics with him.<sup>45</sup> Gertrude was a first rate scientist in her own right, even garnering herself a brief biographical sketch in Mary R.S. Creese's index *Ladies in the Laboratory? American and British Women in Science* (2000).<sup>46</sup>

Davenport and his wife would go on to have two more children, a second daughter,

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<sup>41</sup> Charles B. Davenport, <http://library.cshl.edu/personal-collections/charles-b-davenport> (Accessed April 14, 2019).

<sup>42</sup> Charles B. Davenport, <http://library.cshl.edu/personal-collections/charles-b-davenport> (Accessed April 14, 2019).

<sup>43</sup> Alexander (1835-1910) was the son of the world-renowned natural historian, early biologist, and geologist Louis Agassiz (1807-1873). Agassiz was something of an academic legend at Harvard both due to the thousands of pages of research he had published, but also because of his very vocal criticism of Charles Darwin and his theory of evolution. Agassiz was devoted to the theory of creationism and was involved in some very lively debates on creationism versus evolution during his time at Harvard.

<sup>44</sup> Charles B. Davenport, <http://library.cshl.edu/personal-collections/charles-b-davenport> (accessed April 14, 2019).

<sup>45</sup> Witkowski and Inglis, *Davenport's Dream*, 41.

<sup>46</sup> Mary R.S. Creese, *Ladies in the Laboratory? American and British Women in Science* (Metuchen, New Jersey: Scarecrow Press, 2000), 101.

Jane Joralemon Davenport, born September 11<sup>th</sup>, 1897, and their only son, Charles Benedict Davenport Jr., born on the 8<sup>th</sup> of January, 1911, making him sixteen years their eldest daughter's junior.<sup>47</sup> While Davenport does not write about the births of any of his children in what little remains of his incomplete and unpublished autobiography, he does write about the intense pain both he and his wife suffered when young Charles Jr. died suddenly in 1916.

“Family; The worst thing that has befallen our family was the death, Sept., 5 of our son Charles Benedict Davenport Jr. of acute anterior poliomyelitis and which during the summer had been raging about us.”<sup>48</sup> In Davenport's time it was known as infantile paralysis.

Charles Jr. was only five years old when he succumbed to it. Losing his son had a profound impact on Davenport and his wife, causing him especially to throw himself even more into his work. He would write, “My wife and I became wanderers going to Chicago to see our daughter Jane settled at the University; then to Battle Creek Sanitarium where I spoke on Eugenics as a Religeon [sic]; then to North Carolina, Mt. Mitchell and Maxton to measure tall people; then to Lake Mohonk where I spoke; then back to Brooklyn from which city I commuted to Cold Spring Harbor.”<sup>49</sup> Davenport was no stranger to travel and engagements aboard throughout his career. Indeed, the man always seemed to be on the go, hopping from one social or academic engagement to the next. He lectured primarily on eugenics at gatherings including symposiums, fund raisers, and popularly attended conventions. He attended the American Philosophical Society in Philadelphia numerous times in various

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<sup>47</sup> *Charles B. Davenport*, <http://library.cshl.edu/personal-collections/charles-b-davenport> (accessed November 23, 2019).

<sup>48</sup> Charles B. Davenport Papers, Autobiographical 1, 1916-September 26, American Philosophical Society, Philadelphia, Pennsylvania. Also note: “Acute anterior poliomyelitis” is better known simply as polio. It would be almost forty more years before the first vaccine for the deadly disease would be created by Jonas Salk (1914-1995) and approved for use in 1955, an event that sadly not even Davenport himself would live to see.

<sup>49</sup> Charles B. Davenport Papers, Autobiographical 1, 1916-September 26, American Philosophical Society, Philadelphia, Pennsylvania.

capacities including educational speaker, guest of honor, and audience member for other intellectuals. In the days and months following his son's death, however, it seems that he sought solace in not being tied down anywhere for too long. But for all his constant travels, Davenport would maintain one anchor, the "home base" of his operations and that was Cold Spring Harbor.

Briefly introduced towards the beginning of this chapter, Cold Spring Harbor was where E. Carleton MacDowell, the man who would write Davenport's only biography, worked besides Davenport for many years. And Cold Spring Harbor has a vested interest in protecting Davenport's name and intellectual legacy, which is understandable give how closely the two are tied to the institution. Evidence of this is given through their archives' carefully curated material on Davenport as well as *Davenport's Dream*, the book they published on the man and his work. They have intentionally crafted a narrative around him that highlights his achievements, which were many, while downplaying or outright dismissing the negative impact of his work. It is time to take a closer look at the place Davenport became synonymous with as it plays a significant role in my thesis.

Davenport first arrived at Cold Spring Harbor in the summer of 1898 as the Director of the Biological Laboratory.<sup>50</sup> The laboratory was established by the Brooklyn Institute of Arts and Science in 1890 as a place for teachers to take summer courses in biology.<sup>51</sup> Davenport was taken by Cold Spring Harbor as soon as he arrived and praised it as an ideal environment in which to study bio-diversity. In the November 18<sup>th</sup>, 1898 issue of the journal *Science* he wrote an article titled, "The Fauna and Flora about Coldspring Harbor, L. I.," in an apparent attempt to gain recognition for the area and recommend it to other researchers.

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<sup>50</sup> Witkowski and Inglis, *Davenport's Dream*, 41.

<sup>51</sup> *Ibidem*.

The article starts with an in-depth survey of the Harbor itself, its topography and tributaries. It then moves into the assessment of the local fauna, which was Davenport's area of expertise. "The situation of the laboratory is unique in its combination of immediately accessible faunas of the sea, fresh-water and woodland," Davenport reported in his article, "All very rich in individuals and species."<sup>52</sup> He then gives a list of what he classifies as "some of the commoner or more interesting forms" found in and around the Harbor.<sup>53</sup> For the flora assessment Davenport gave thanks in his article to a Dr. D.S. Johnson for providing the descriptions, as flora was apparently not Davenport's strong suit.<sup>54</sup> Davenport's collaboration with Johnson sets the tone for what would be a recurring theme in Davenport's intellectual life.

As he clearly expressed in his autobiography, Galton believed that he was exceptional from childhood and thus set apart from his peers.<sup>55</sup> Throughout his autobiography he speaks of things such as his "eager mind," zealously, and drive to be the best in every endeavor he undertook. Collaboration was not something he was known for engaging in, which is partially why his mentorship of Pearson was considered so extraordinary and significant. Pearson is certainly the most well-known intellectual whom Galton did indeed extensively collaborate with. Galton put all the fruits of his labor solely into Pearson's basket. Pearson was the chosen one, a fact he allowed no one to forget. And there were other high profile British intellectuals, such as Leonard Darwin, interested in and in favor of eugenics that Galton could have invested his time and energy in, but he chose not to. Pearson was his man.

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<sup>52</sup> Chas B. Davenport, "The Fauna and Flora About Coldspring Harbor, L. I." *Science* 8, no. 203 (1898): 686 [www.jstor.org/stable/1625976](http://www.jstor.org/stable/1625976). (Accessed November 23, 2019).

<sup>53</sup> *Ibidem*.

<sup>54</sup> Davenport, "Fauna and Flora," 687.

<sup>55</sup> Francis Galton, *Memories of My Life* (London: Methuen & Co., 1908).

Pearson did have a history of collaborating with other intellectuals, having belonged to various intellectual societies, such as the Men and Women's Club. It is important though to note that Pearson operated as the absolute authority in virtually all the academic circles and societies he chose to engage in. Like Galton, Pearson saw himself as a leader, a man of higher intellectual rank and accomplishment than his peers.

Davenport did not see himself as much as a leader but as an "organizer." He reflected in his autobiography, "Also from early life have been engaged in organizing societies for which I seem to have a special taste and perhaps aptitude."<sup>56</sup> Davenport was far more collaborative in his intellectual efforts than either Galton or Pearson. He was known for reaching out to others, including Galton and Pearson, for guidance, comradery, and to openly exchange ideas. Davenport certainly had a healthy confidence in himself and his knowledge. He knew that he was a prominent contributor to the American scientific community. In the autobiography he pauses to reflect on his many accomplishments, "It is hard to judge of one's most important contributions to science."<sup>57</sup> Unlike Galton and Pearson, Davenport saw himself very much as a part of a like-minded community, a man of science not unlike all the many others he worked with. "I can only stress that my experience has been like that of many other men of science," Davenport pointed out.<sup>58</sup> In his public opinion at least, all men of science were distinguished. If he felt himself superior to his peers, he did not openly express it as Galton did or act as if he was as Pearson did.

Davenport wrote his article in *Science* about Cold Spring Harbor to attract attention to

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<sup>56</sup> Charles B. Davenport Papers, Autobiographical 1, 1916-September 26, American Philosophical Society, Philadelphia, Pennsylvania.

<sup>57</sup> Charles B. Davenport Papers, Autobiographical 1, 1916-September 26, American Philosophical Society, Philadelphia, Pennsylvania.

<sup>58</sup> Charles B. Davenport Papers, Autobiographical 1, 1916-September 26, American Philosophical Society, Philadelphia, Pennsylvania.

the location, the laboratory, and all the potential he saw in both. “In conclusion a few words may be added concerning the value of the laboratory at Coldspring Harbor as a center for the study of localities other than that of the Harbor itself.” Davenport then explained that, “Long Island Sound is easily reached from the laboratory to the rocky shores of Connecticut. A two hours’ ride on the bicycle over good roads brings one to the Great South Bay, which contains certain oceanic animals not found at Coldsprings...”<sup>59</sup> Clearly at this time Davenport’s primary focus was still on the biology of animals, rather than humans, and that would be the case for the first part of his tenure at Cold Spring Harbor. Over the years his focus would change from animal biology to human, but what would never change was his belief that Cold Spring Harbor was the preeminent location for study and research. Davenport was the champion who transformed Cold Spring Harbor from a summer retreat for teachers to a year-round, full scale, dedicated scientific laboratory at the forefront of biological research in America. To fulfill the promise Davenport saw in Cold Spring Harbor all along, he would launch a campaign to bring a department to “carry out experimental investigations of evolution, combining studies of variation with studies of heredity.”<sup>60</sup> And knowing that such a grand endeavor would require serious financial backing, he pitched the idea to the newly established Carnegie Institute of Washington (CIW).

Davenport first wrote the CIW, looking for project funds, on January 16<sup>th</sup>, 1902. This was only 8 days after the CIW had been incorporated.<sup>61</sup> And he would continue relentlessly courting the high opinion and profitable favor of CIW trustees, such as John Shaw Billings (1838-1913), whom Witkowski called, “one of the CIW’s most influential trustees.”<sup>62</sup> The

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<sup>59</sup> Davenport, “Fauna and Flora,” 688-689.

<sup>60</sup> Witkowski and Inglis, *Davenport’s Dream*, 43.

<sup>61</sup> *Ibidem*.

<sup>62</sup> *Ibidem*.

National Academy of Sciences had a biographical memoir written about Billings after his death, just as they would later have a memoir written about Davenport postmortem. Billings' memoir was written by S. Weir Mitchell (1829-1914), himself an American scientist and physician, who was also a published novelist and poet. Mitchell opened his memoir on Billings by explaining the purpose of the National Academy of Sciences' memoirs, "It has been the custom of the National Academy of Sciences to commemorate in memoirs those whom death has removed from its ranks. Since the lives of men of science are little known except to those engaged in their own lines of research, some record is the more to be desired of one who illustrated the fact that scientific capacity may exist with varied ability for the conduct of large affairs."<sup>63</sup>

When writing about Billings' many accomplishments, Mitchell had this to say about the founding of the CIW and Billings' role in it, "Dr. Billings was one of the original incorporators of the Carnegie Institute of Washington (January 4, 1902), vice-chairman of its Board of Trustees up to December, 1903, after which he was chairman until his death and a member of the executive committee."<sup>64</sup> It is no wonder then why Davenport paid Billings' such close, personal, attention. Davenport considered men of science to be bound by a sort of academic kinship and would have therefore seen Billings as a more successful senior to himself, but still a "peer" of sorts. Additionally, Davenport had no qualms with rubbing shoulders with elites and experts in society in general and certainly in the field of science. His extroversion and willingness to reach out to other members of the scientific community was part of what made him so successful and that would eventually prove to be the case with

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<sup>63</sup> S. Weir Mitchell, "Biographical Memoir of John Shaw Billings 1838-1913," (Washington D.C.: National Academy of Science, 1917), 375.

<sup>64</sup> Mitchell, "John Shaw Billings," 412.

Billings. “Negotiations with the CIW continued to drag on but at the end of 1903, Davenport received word that Billings was going to recommend Davenport’s proposal to the Carnegie Trustees. And so, in December 1903, almost 3 years since his first communication with the CIW, Davenport learned that the Carnegie was going to finance *two* biological research stations, one at Cold Spring Harbor...”<sup>65</sup> That would prove the beginning of the Cold Spring Harbor laboratory, which is still producing research on genetics and biology even today. It never would have existed without the vision and determination of Charles Davenport. Is it really any wonder then why Cold Spring Harbor finds it necessary to build up the man who, in all reality, made them into the premier institution that they are still today? They have every reason to gloss over the unseemly aspects of Davenport’s legacy such as eugenics, racism, and anti-Semitism and only highlight the positive. It is good public relations for the laboratory. They cannot divorce themselves from Davenport, so instead they divorce Davenport from the dark side of eugenics.

But there can be no question that Davenport was as dedicated a eugenicist as Galton and Pearson before him. In fact, Davenport made a point of personally meeting both men when he and his wife visited Europe in 1902.<sup>66</sup> While trying to make his case for funding from the CIW, Davenport undertook a tour of Europe, in order to secure the support of prominent European scientists, which most certainly included Galton and Pearson at the time. Davenport was also on a mission to learn as much as he could from the highly functional laboratories established throughout Europe, many of which he would take inspiration from in designing his own laboratory at Cold Spring Harbor. Davenport seemed to be most impressed by Pearson and his statistical method, even before having actually met the man. Perhaps

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<sup>65</sup> Witkowski and Inglis, *Davenport’s Dream*, 45.

<sup>66</sup> Witkowski and Inglis, *Davenport’s Dream*, 44.

though, given Pearson's thorny nature, Davenport might not have been so keen on him had he actually met the man in person before being introduced to his work. Either way, in his autobiography, Davenport boasts of bringing Pearson's work across the Atlantic and to the attention of American intellectuals, "My fondness for statistics was indicated by my keeping records of weather [as a boy]. An outgrowth of this interest was the writing of "Statistical Methods" in 1899. This was the first book to bring the newer investigations of Karl Pearson to popular attention in the United States."<sup>67</sup> And Davenport would continue his love affair with statistics by opening the Eugenics Record Office (ERO) in 1910.

Davenport's transition from animal biology to human biology was by no means a substantial leap, especially at the turn of the twentieth century. In 1900 the genetic work of Gregor Mendel (1822-1884), an Augustinian friar and abbot born in the modern day Czech Republic, then a part of the Austrian empire, was independently rediscovered by Dutch botanist (and geneticist pioneer) Hugo de Vries (1848-1935), German botanist (also pioneer in the field of genetics) Carl Correns (1864-1933), and Austrian agronomist Erich von Tschermak (1871-1962).<sup>68</sup> Their rediscovery of Mendel's groundbreaking work soon went from revolutionizing botany and agriculture to becoming the foundation of a whole new field of science, called genetics, which was applied to everything from plants to animals to human beings. Davenport was never considered a dedicated geneticist, but he did borrow heavily from Mendelian genetics, especially in regards to the principles of genetic inheritance. Davenport found the idea of human heredity fascinating and it was that academic interest

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<sup>67</sup> Charles B. Davenport Papers, Autobiographical 1, 1916-September 26, American Philosophical Society, Philadelphia, Pennsylvania.

<sup>68</sup> 1900: Rediscovery of Mendel's Work, National Human Genome Research Institute, <https://www.genome.gov/25520238/online-education-kit-1900-rediscovery-of-mendels-work>. (Accessed November 28, 2019). Edward Edelson, *Gregor Mendel: And the Roots of Genetics* (New York: Oxford University Press, 2001).

which would lead him down the road to eugenics and, it should be noted, on a path that diverged significantly from Pearson.

Among the British eugenicists the rediscovery of Mendelian genetics caused a schism to occur between biometricians, led by Pearson, and those who supported Mendelian principles of heredity. Pearson did believe that certain traits, such as alcoholism, were inherited, but he insisted that the proof of this lied lay in statistics, not genetics.<sup>69</sup> Pearson fiercely attacked any eugenicist, individual or society, which espoused Mendelian beliefs. And one of the eugenicists who bore the brunt of his war against genetics was Charles Davenport, who started conducting heredity experiments using Mendelian principles by the time Davenport established the ERO. Davenport's eagerness to adopt Mendelian principle, arguably before he fully comprehended them, was scoffed at not only by those who rejected the principles, like Pearson, but even by some of Davenport's pro-Mendelian American colleagues.<sup>70</sup> Pearson was especially sharp in his criticism, however, and remarked to Galton, "The success of these things always lies in the individual who dominates the whole and our friend Davenport is not a clear strong thinker."<sup>71</sup> The most scathing critique of Davenport from Pearson's camp did not come from Pearson himself, however, and it would not come until after Davenport "drew blood" in their feud.

Before this fissure in the eugenics community happened, Davenport was a staunch supporter of Karl Pearson, a devotee even. Davenport was the American voice of Pearson's beloved *Biometrika*, his statistical and eugenic journal. But that all ended in a letter dated February 5<sup>th</sup>, 1910, from Davenport to Pearson, which Davenport uncharacteristically did not

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<sup>69</sup> Kevles, *In the Name of Eugenics*, 67.

<sup>70</sup> Kevles, *In the Name of Eugenics*, 48.

<sup>71</sup> *Ibidem*.

sign, calling into question whether he even personally wrote the letter or simply had it dictated by a member of his staff.<sup>72</sup> Proving that he could match Pearson's icy aloofness, Davenport confirms that he received Pearson's letter, dated January 27<sup>th</sup>, requesting that Davenport's name be withdrawn from the *Biometrika* publication. Pearson likely meant the move as a slight, but Davenport simply shrugged it off by saying, "I may say that I am quite content to have it so."<sup>73</sup> Davenport then goes on to claim that he only continued to associate his name with *Biometrika* for as long as he did at Pearson's own request, strongly suggesting that it was Pearson who needed Davenport and not the other way around. Then Davenport takes a very pointed stab at Pearson, stating, "Biometrika stands not for biometry but for a special set of ideas which all experimentalists have found not to accord with the facts."<sup>74</sup> In plain and brutal English, what Davenport was stating is that Pearson treated *Biometrika* as his own personal platform where actual facts did not matter, merely Pearson's opinions.

Davenport does not hold back at all in this letter. He even taunts Pearson at the end, closing the letter with, "In regards to the article in Science of December 10<sup>th</sup> which leads you to think that I am out of sympathy with Biometrika it is rather humorous to note that another person whose name appears on the title page of Biometrika has reproved me for being too lukewarm in my approval of Johannsen's work."<sup>75</sup> The Johannsen referenced is Wilhelm Johannsen (1857-1927), a Danish botanist and geneticist. Johannsen is best known for coining the terms "gene," "phenotype," and "genotype" in his book that was translated into

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<sup>72</sup> Charles B. Davenport Papers, Pearson, Karl, "Letter dated February 5, 1910," B: D27, American Philosophical Society, Philadelphia, Pennsylvania.

<sup>73</sup> Charles B. Davenport Papers, Pearson, Karl, "Letter dated February 5, 1910," B: D27, American Philosophical Society, Philadelphia, Pennsylvania.

<sup>74</sup> Charles B. Davenport Papers, Pearson, Karl, "Letter dated February 5, 1910," B: D27, American Philosophical Society, Philadelphia, Pennsylvania.

<sup>75</sup> Charles B. Davenport Papers, Pearson, Karl, "Letter dated February 5, 1910," B: D27, American Philosophical Society, Philadelphia, Pennsylvania.

German under the title *Elemente der Exakten Erblchkeitslehre* (1909). Davenport wrote a review of the book review in the December 10<sup>th</sup>, 1909 issue of the journal *Science*.<sup>76</sup>

Davenport's comment was meant to imply to Pearson that even other scientists that he trusted and collaborated with were really on Davenport's side and did not agree with Pearson either.

If there was any hope at all of reconciling these two sides, it came to an end three years after Davenport's letter to Pearson. In 1913, the Galton Laboratory issued a report that found Davenport's data had been "collected in an unsatisfactory manner" and "tabled in a most slipshod fashion" and concluded by saying, "the Mendelian conclusions drawn have no justification whatever."<sup>77</sup> This was an attack on Davenport's credentials as a scientist, and likely retaliation for Davenport attacking Pearson's credentials. Over the years Davenport would continue to politely invite Pearson to gatherings and events he spearheaded, but the two were never again amicable to one another.

Davenport and Pearson's falling out would put more distance between the two than merely the Atlantic Ocean. It would mark a profound break in British and American eugenics. There would be some further interactions between the two sides, but from that point on, Davenport's eugenics, the eugenics that he would make popular not just in America but around the world, would look far different from anything Pearson ever proposed. Davenport's eugenics was undoubtedly shaped in many ways by his belief in scientific racism. He wanted eugenics to provide a "scientific" legitimacy for white superiority and supremacy. Theories regarding race and eugenics had been ever present from Galton's works. Davenport refined these theories and most importantly, put them into practice.

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<sup>76</sup> Chas. B. Davenport, *Science* 30, no. 780 (1909): 851-53, [www.jstor.org/stable/1634393](http://www.jstor.org/stable/1634393). (Accessed November 28, 2019).

<sup>77</sup> Kevles, *In the Name of Eugenics*, 105.

Kevles's noted in his research that one of the reasons negative eugenics became an issue of politics and law in America was because of Davenport and the ERO's cooperation with providing resources, data, publications, and personalities to support the cause. He said, "In the United States, eugenic politics and eugenic research were symbiotically linked..."<sup>78</sup> This was in stark contrast to Britain where Pearson and his counterpart to the ERO, the Galton Eugenics Laboratory, "steadfastly refused to...participate in political activity, or make available his institutional resources and expertise for the support of legislative measures."<sup>79</sup> Both Davenport and Pearson believed in the principles of eugenics, however, they were very different men with vastly different visions of how eugenics should be applied to society and who should be the one doing the "heavy lifting." Davenport believed that it was his duty not just to spread the word about eugenics among academic circles, like Pearson did, but to the masses. And to that ends, he supported the use of various forms of media to popularize eugenics. Eugenics in America was not a far-fetched intellectual pursuit, as Pearson made it in Britain. Eugenics in America took the form of Fitter Family contests at the Kansas State Fair, founded by Dr. Florence Brown Sherbon (1869-1944) and nurse Mary T. Watts (dates unknown), as well as Better Babies contests in various magazines. It was movies like the now infamous silent film *The Black Stork* (1917), in which a couple is warned by a eugenicist that they are ill-fit for marriage and having children, but the warning goes unheeded and so the couple produce a defective child who dies. *Eugenics in America* expanded beyond Davenport's biology and into other fields, such as economics, championed by men like Irving Fisher (1867-1947), and psychology, where Henry H. Goddard (1866-1957) would use eugenic principle in creating his version of intelligence testing. It was laws,

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<sup>78</sup> Kevles, *In the Name of Eugenics*, 104.

<sup>79</sup> *Ibidem*.

beyond the known compulsory sterilization laws that more than half of the individual states adopted. It was federal law in the force of immigration control, which the ERO provided extensive data and support for.

Eugenics was even at the heart of what is now deemed by many as a social good; the movement to provide birth control to women, especially the poor and minorities. In 1925 Margaret Sanger wrote Davenport, begging for his support, knowing that if she could get her crusade for birth control endorsed by the promoter of eugenics himself that she could clear so many obstacles in her way.<sup>80</sup> All these different aspects and angles of eugenics in America all had one person in common, Charles B. Davenport. He was at the center of everything eugenics going on in America. He had extensive communications with Fisher, Goddard, Sanger, Sherbon, and Watts. His personal papers are full of pamphlets urging politicians to act on immigration control and magazine clippings of babies deemed eugenically “fit.” According to Riddle’s biography published in 1947, Davenport was a member of some sixty-four intellectual and civic associations and societies and served as the president or vice-president of ten.<sup>81</sup>

Davenport had his own eugenic creed; which Riddle gave in abbreviated form:

I believe in striving to raise the human race to the highest plane of social organization, of cooperative work and of effective endeavor.

I believe that I am the trustee of the germ plasm that I carry, that this has been passed on to me through thousands of generations before me; and that I betray the trust if (that germ plasm being good) I so act as to jeopardize it, with its excellent possibilities, or, from motives of personal convenience, to unduly limit offspring.

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<sup>80</sup> Charles B. Davenport Papers, Sanger, Margaret, “Letter Dated March 13, 1925” D27 C. B. Davenport Papers, American Philosophical Society, Philadelphia, Pennsylvania.

<sup>81</sup> Oscar Riddle, *Biographical Memoir of Charles Benedict Davenport 1866-1944*, *National Academy of Sciences of the United States of America Biographical Memoirs Vol. XXV – Fourth Memoir* (National Academy of Sciences, 1947), 90.

I believe that, having made our choice in marriage carefully, we, the married pair, should seek to have 4 to 6 children in order that our carefully selected germ plasm shall be reproduced in adequate degree and that this preferred stock shall not be swamped by that less carefully selected.

I believe in such a selection of immigrants as shall not tend to adulterate our national germ plasm with socially unfit traits.

I believe in repressing my instincts when to follow them would injure the next generation.<sup>82</sup>

Not all eugenicists followed Davenport's creed, of course, but he founded the ERO, arguably one of the most important organizations for the promotion of eugenics in the United States based on those principles. And it was Davenport's creed that the ERO taught to other eugenicists through their educational platforms.

There is no mention of "I believe the unfit should be sterilized." Davenport's creed focuses almost entirely on positive eugenics. And maybe that is why Davenport has been allowed, historically, to walk away so untarnished. If you simply look at what the man himself said, his creed and beliefs, he does not come across as racist or someone seeking the elimination of any person or group. Framed only by his words, Davenport is hardly worth remembering. Just another dabbling man with a Ph.D. and a white coat.

Charles Davenport was no dabbler. And what he did went well beyond the scope of his creed. His organization, the ERO, provided material support to policy makers who established the laws under which more than 60,000 American citizens were forcibly sterilized for their "unfit germ plasm." No, Davenport never got his own hands dirty, that was for other, less advanced, people to do. But that is the case with most leaders and without question Davenport was the leader of American eugenics. He was the architect, the builder. He collected data, which seems like such a benign thing. Galton collected data. Pearson

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<sup>82</sup> Riddle, *Biographical Memoir*, 84-85.

collected data. But neither of those men allowed the data they collected to be used for the establishment of any public policy. In fact, Pearson expressly refused to do such a thing, even when pressured by others who saw Davenport's success in America and wanted to emulate it in Britain. The evidence of Davenport's influence and policy achievements are buried within the thousands of pages of records from the ERO and his personal correspondence.

Irish playwright and political activist George Bernard Shaw (1856-1950) attacked Pearson for not being a man of action. He said to Pearson in 1893, "Your aim is never to give yourself away, never to make a fool of yourself... You are full of reasons for doing nothing, all excellent reasons—reasons for not making speeches in Trafalgar Square, for not writing plays, for not printing them, reasons for not living, not loving, not working...an infinity of nots."<sup>83</sup> In short, for not being what Charles Davenport became. For not making public his research. For not broadcasting his vision to the masses. For not creating a web of connections that not only included academics in his own field, but people who were on the frontlines, making policy, changing the literal face of America. Making it whiter. Making it "fitter." Davenport's papers show that he carefully followed any new headline relating to eugenics, everything from testing the legality of blood tests as a precursor to marriage to immigration reform. He had his finger on the pulse of American eugenics. Another news story that he followed closely was about the so-called "race suicide" situation that white Anglo-Saxon Protestants in America claimed to be facing since the late 1800's. Race suicide is the gradual extinction of a racial group through voluntary decreased reproduction.

Davenport believed that race suicide was real. And that is why in his creed he stresses the need of those with fit germ plasm to reproduce and carry that genetic legacy on to the

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<sup>83</sup> Kevles, *In the Name of Eugenics*, 104.

future. Davenport may not have ever uttered a word in favor of negative eugenics and he did not have to. Davenport stressed the need for people like himself, middle- and upper-class white Americans, to reproduce. Coupled with his blatantly racist study of the people of Jamaica that concluded whites were the superior race his intentions were clear.<sup>84</sup> You can call Davenport many things: scientist, professor, businessman, husband, father, colleague, mentor, visionary... But in that list, you must also include racist. And there is no way to argue that his racial views did not influence his eugenics. They did. The creation of a white master race is a concept attributed to the Nazi Party of Germany. Davenport was there first. He was the pioneer of attempting to make a master white race. That is the piece of Davenport's legacy scholars have tried dancing around since his death. It must now be reckoned with.

Jon Alfred Mjøen was a Norwegian chemist, best known for his research on racial biology and eugenics in Norway. In an undated letter to Leonard Darwin, a copy of which found its way to Davenport and is located amongst his own correspondence with Darwin, Mjøen politely, but firmly, rebukes Darwin for not being more like "the Americans" in perusing eugenics policy:

My dear Mr. Darwin;-

It seems to me that there must be a misunderstanding somewhere in regard to the scope and aims of our International Eugenic work. And I do feel that it is my duty to express my opinion frankly...

What we need now is more science on one side and carefully worked out practical proposals on the other side, and less academic discussions. Against practical eugenic or Eugenic reform work might be argued that we must wait until the opinion of the nations as a whole has been sufficiently influenced before we demand that political steps should be taken. And surely in regard to some reforms (segregation and sterilization) it is certainly advisable to wait. But, as I explained in my report we have already [sic] succeeded in carrying through some eugenic reforms in Norway, and

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<sup>84</sup> Davenport, C. B. "Race Crossing in Jamaica." *The Scientific Monthly* 27, no. 3 (1928): 225-38. Accessed December 20, 2020. <http://www.jstor.org/stable/7978>.

are now preparing others at the request of the authorities.

The Americans (Davenport, Laughlin and others) have shown that even much more can be done. Indeed, they are making progress in a most promising way...<sup>85</sup>

In his letter Mjøen also tells Darwin that he is disappointed in European eugenicists for not taking the same initiative as the Americans. It is not a coincidence that Davenport was the first American Mjøen named, nor that a copy of this letter exists in his personal papers although it was not written to or from him. It is proof that Davenport was the chief architect of an American eugenics program that included segregation, sterilization, and according to Mjøen “even much more.” It also proves that European nations were looking to America as the leader in eugenics. Outside of Nazi Germany, and predating them, Norway and the other Scandinavian countries had the most robust eugenics programs in Europe and Mjøen, a Nordic based white supremacist, was a leader of that movement.

In 2008 Matt Ridley began his foreword to the essay collection *Davenport's Dream: 21<sup>st</sup> Century Reflections on Heredity and Eugenics*, “Charles Davenport had the best of intentions.”<sup>86</sup> Was that true? Were Davenport’s intentions for the best? Davenport believed he was creating a system to better humanity and society, just as Galton and Pearson did. But his definition of who classified as a “human” and who was “degenerate” or “sub-human” is the point of contention. Davenport’s intentions were clearly for the best for him and people like him. It is hard to argue the same for those he categorized as “others.”

Davenport’s apologists (as well as Galton’s and Pearson’s) could argue these men were merely victims of their times when all white people, especially the middle and upper

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<sup>85</sup> Charles B. Davenport Papers, Darwin, Leonard, 1850-1943, “Letter from Jon Alfred Mjøen to Leonard Darwin,” Folder 3, 1925 Jan. 28 – 1926 Oct. 22, C. B. Davenport Papers, American Philosophical Society, Philadelphia, Pennsylvania.

<sup>86</sup> Witkowski and Inglis, *Davenport's Dream*, ix.

classes, were racist. That would be not only historically inaccurate but grossly unjust to the many white people who risked their reputations, livelihoods, and lives fighting for civil rights for people of color. No one, at any point in history, had to be a racist. To literally “whitewash” away such a glaring mark against Davenport is to deny history. If Davenport’s dream is to be called “well-intentioned,” it must first face the scrutiny of who Davenport actually was and what he believed, said, and did, in totality. Davenport’s legacy is not trail mix. You cannot pick out the pieces you like and disregard the rest. It all must be taken in and analyzed. Far more than Galton or Pearson, there appears to be a concerted effort to gloss over Davenport’s faults and make him some unsung hero.

This is clearly seen in *Davenport’s Dream* with its total lack of even a mention of Davenport’s scientific racism or any of the controversial figures, like Madison Grant or Irving Fisher, whom he regularly communicated with. *Davenport’s Dream* was published by Cold Spring Harbor Laboratory. They had the creative control over the book, the only modern publication on Davenport and his legacy, and they appear meticulous in creating what at best is a heavily biased image of Davenport. In his biographical essay on Davenport, Witkowski, who acted as one of the editors for the essay collection as well as contributing his own work, mentions Davenport’s work on eugenics in a highly clinical and, dare one say, sterilized fashion. Davenport is applauded for his efforts in helping to advance IQ testing, which is how psychologists typically remember the history of the American eugenics’ movement. Witkowski assigns any unseemliness associated with Davenport’s efforts to another notable American eugenicist, Harry Laughlin (1880-1943). Laughlin was, without question, an influential American eugenicist in his own right, however, *even* Witkowski admits that Laughlin was heavily influenced and encouraged in his study of eugenics by

Davenport.<sup>87</sup> Even the essay called “The Eugenic World of Charles Benedict Davenport,” written by Elof A. Carlson, American geneticist and historian of science, is not a remembrance of Davenport’s part in making eugenics a worldwide phenomenon. Instead it makes the argument that Davenport was, in basis, correct that traits such as mental illness and alcoholism are inheritable, only he lacked the complex understanding of genetics we do now in order to make his endeavor successful.<sup>88</sup>

At the start of this chapter two questions were asked. Who was Charles Benedict Davenport and what is an accurate account of his deeds? Charles B. Davenport was a man of action. Whether rightly or wrongly, he saw his race as being on the edge of a chasm. Race suicide was not an opinion to him, it was a fact. In his papers there is an interview with Dr. Alexander Graham Bell (1847-1922) in year, a peer whom Davenport had numerous personal correspondence with. In it race suicide is described as the fear that the population of immigrants and their children would come to outnumber that of “native born” Americans, referring to white Anglo-Saxon descended Americans, not American Indians. Bell argues that “race suicide will itself commit suicide,” because in decreasing the birthrate, “native born” Americans were actually weeding out the “gene” that caused “the desire to avoid maternity” within themselves and would be left with only those who would reproduce, causing their numbers to surge.<sup>89</sup> It is unknown whether Davenport agreed with Bell’s conclusion, but both men believed in race suicide and Davenport was driven to find a solution to it. He never gives a clear-cut answer as to why he refused to support Margaret

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<sup>87</sup> Witkowski and Inglis, *Davenport’s Dream*, 49.

<sup>88</sup> Witkowski and Inglis, *Davenport’s Dream*, 59-76.

<sup>89</sup> Charles B. Davenport Papers, Eugenics Record Office 1895-1921 (A: 052 Race Suicide and Childlessness), “Race Suicide Declared Impossible” No. 77 SER VI, Charles B. Davenport Papers, American Philosophical Society, Philadelphia, Pennsylvania.

Sanger, but it seems plausible that he feared advocating birth control would have the undesired effect of amplifying the declining birth rate in native born Americans, not just the poor and minorities. There is also the possibility of Davenport being put off by Sanger being a female activist. Davenport did not seem to have an objection to women scientists, however, as shown by his working relationships with not only his wife, but other women of science such as Dr. Florence Sherbon and Mary T. Watts.

Davenport saw eugenics as the solution to a problem, and not just the problem of race suicide. Eugenics was the solution to ending crime, poverty, and disease, as Davenport saw all those conditions as being genetically inherited.<sup>90</sup> He did not care to debate best principles like Pearson. Davenport's eugenics was a call to and a plan for action. It was active eugenics. He took the idea and through the ERO disseminated it. If policy makers wanted data to "prove" the worthiness of eugenics, Davenport determined to give it to them and he did. He had a word to whisper into any and every ear that would hear him out. He was a charismatic man, and unlike many intellectuals such as Pearson, a highly sociable man. Pearson went around in his small, exclusive circles. Davenport went everywhere. He traveled extensively throughout the United States and Europe. His Eugenics Congress included representatives from across the United States, as well as Europe and Japan. His falling out with Pearson did not close doors for him. It made him more desirable to certain European eugenicists, such as Leonard Darwin, son of Charles Darwin, head of Britain's Eugenic Education Society, which Pearson refused to collaborate with.

Following World War I, there is an exchange between Darwin and Davenport as to the "German problem." Germany was always on the cutting edge of eugenics in Europe, but

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<sup>90</sup> Charles B. Davenport, *Heredity in Relation to Eugenics* (New York City: H. Holt, 1911), 4.

understandably after the Great War, French and Belgium scientists did not want German scientists invited to international functions. Davenport played the diplomat in that situation, as he often would in negotiating spaces with his international counterparts. Part of what made Davenport such a success compared to Pearson in the proliferation of his eugenics was the fact that Davenport had those people skills that Pearson, by all accounts, lacked. People remember Pearson as a very abrasive person. In contrast, people tend not to remember Davenport at all. Is it better to be hatefully remembered or sweetly forgotten about? For Davenport the latter seems to have done him no harm.

But Charles Davenport needs to be remembered. He needs to be remembered as the trailblazing scientist he was. He needs to be remembered as an agent of history. Davenport changed the world. He brought together a network of likeminded individuals all working together towards a single goal, the betterment of humanity. That was indeed what Davenport sought to achieve. But it must be remembered that he frankly did not believe that all people were worthy of the designation “human.” African Americans were not “humans” to him. Immigrants were not “humans” to him. And possibly most importantly, Jews, whom he also referred to as “Hebrews” were not humans. Davenport reported:

There is no question that, taken as a whole, the hordes of Jews that are now coming to us from Russia and the extreme south-east of Europe, with their intense individualism and ideas of gain at the cost of any interest, represent the opposite extreme from the early English and the more recent Scandinavian immigration with their ideas of community life in open country, advancement by the sweat of the brow, and the uprearing of families in the fear of God and the love of country.<sup>91</sup>

In addition to being racist, Davenport was an anti-Semite, another fact that scholars and historians have not grappled with.

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<sup>91</sup> Davenport, *Heredity in Relation to Eugenics*, 216.

In the end the most important thing to remember about Charles Davenport was his success. He was successful in making eugenics into a “science.” He was successful in spreading knowledge about it around the world. Charles Davenport was a success. And maybe that is exactly why people now want to forget about him. Because to acknowledge the existence of Charles Davenport is to recognize the real harm eugenics caused.

## CHAPTER 4

### “TEACHERS AND PREACHERS”: THE LIFE OF IRVING FISHER

#### AND MAINSTREAMING OF EUGENICS

*I have sometimes said that eugenics is hygiene raised to the highest power. It is comparatively new movement, but one which is sweeping the world with wonderful rapidity, and taking hold of the emotions of mankind in a way that no other movement has ever done, or has deserved to do. ~Irving Fisher<sup>1</sup> (1913)*

Those were the words American neoclassical economist Irving Fisher (1867-1947) started his treatise on eugenics (1913) with. To say Fisher was “influential” in his field would be an understatement. He was one of the most cited economists of the early twentieth century, before the popular surge of Keynesian economics.<sup>2</sup> He contributed immensely to the development of economics as a social science and as policy in the United States before the Great Depression. It may seem strange that an economist promoted eugenics; however, Fisher was much more than just an economist.

I argued that Davenport showed us the critical role media played in eugenics becoming the popular sensation it was. Fisher himself was something of a celebrity in his own time and knew how to use media to his advantage as well. But Fisher, like Pearson, was a mathematician at heart. And just as Pearson sought to legitimize Galton’s idea of eugenics, in America Fisher would be critical in popularizing this pseudoscience and advocating for it as global public policy. This chapter analyzes the crucial role Fisher played

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<sup>1</sup> Irving Fisher, *Eugenics* (Coppell, TX: Pantianos Classics, 1913), 4-5.

<sup>2</sup> Dimand, Robert W., and John Geanakoplos, "Celebrating Irving Fisher: The Legacy of a Great Economist," *The American Journal of Economics and Sociology* 64, no. 1 (2005): 3-4. Accessed November 14, 2020. <http://www.jstor.org/stable/3488114>.

in the final leg of the transatlantic journey of eugenics --from a theory that started on the fringes in Britain to a mainstream pseudoscience in America. Specifically I focus on the role of religion, familial ideas on education and health, and the political choices Fisher made in his life to expose his influence on eugenics. Eugenics and economics might seem to be strange bed-fellows, however, I argue that there are parallels between how the relatively young, modern field of economics rose as a social science and how eugenics became a popular pseudo-science in America.

Fisher was an American social progressive and campaigned for such progressive initiatives as prohibition and hygiene, both public and social. The link between eugenics and the social hygiene movement is an important, Transatlantic one. The social hygiene movement is most often associated with American progressivism, but that is a misnomer. Social hygiene almost fully preoccupied Pearson, and Galton was an advocate as well. Fisher's fixation on the issue was prompted in part by his contraction of tuberculosis in 1898.<sup>3</sup> He spent three years in a sanatorium and made a complete recovery, but the ordeal understandably shaped many of his public and social hygiene concerns and ideas. Fisher had also watched tuberculosis kill his father back in 1884.<sup>4</sup> He took the death of his father particularly hard and said in a letter he wrote two days after his father's death, "The example he [his father] set will ever have a hallowing influence on my life."<sup>5</sup> Pearson and Davenport had notoriously tense relationships with their fathers. Fisher, however, was like Galton in that he greatly admired his father. It is arguable that in all four cases, these men were the products of their fathers, whether the effect was positive or negative.

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<sup>3</sup> Robert Loring Allen, *Irving Fisher: A Biography* (Cambridge, MA: Blackwell, 1993), 81.

<sup>4</sup> Allen, *Irving Fisher*, 22.

<sup>5</sup> *Ibidem*.

Irving Fisher was born in the village of Saugerties, New York on February 27, 1867. His father, George Whitefield Fisher became the pastor of a congregational church in Cameron, Missouri in 1882, at which point 15-year-old Irving was admitted as a junior to the Smith Academy Advanced Preparatory Scientific School in nearby St. Louis, Missouri.<sup>6</sup> Academically gifted from a young age, Fisher always knew that he wanted to pursue higher learning, but unlike Galton, Pearson, and Davenport, Fisher came from a family of humble means. Neither teaching nor preaching, the two things George Whitefield Fisher did to make money, were lucrative careers. Stressing the importance of his father as a role model, however, Irving Fisher, though an economist by schooling, would in fact be a teacher and a preacher himself. He did not teach young children like his father did. Instead, he taught at the collegiate level. He also sought to teach the masses and that is where his “preaching” came in. Fisher, however, reportedly rejected religion and preached as an atheist.

In his book, *The Economics of Prohibition* (1991), American economist Mark Thornton wrote of Fisher that his “atheism would appear to place him at odds with religious reformers, who were the principal supporters of prohibition. Still, though Fisher gave up his belief in God and religion, he remained convinced of the doctrines and methods of postmillennialist evangelical Protestantism.”<sup>7</sup> Thornton cited no evidence proving Fisher’s atheism, possibly because he believed that the fact was well known. It is true that from the time he was a young man, Fisher was outspoken on the issue of religion. According to his son, Irving Norton Fisher (1900-1979) Fisher was a prolific letter writer and one of his most trusted confidants was his former schoolmate, the Reverend William G. Eliot Jr. (1866-

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<sup>6</sup> Allen, *Irving Fisher*, 20.

<sup>7</sup> Mark Thornton, *The Economics of Prohibition* (Salt Lake City, UT: University of Utah Press, 1991), 16.

1956). The two men corresponded for sixty-five years.<sup>8</sup> They met as schoolmates in St. Louis, where Eliot came from one of the most prestigious families in the city. His grandfather, William Greenleaf Eliot (1811-1887), was most notable as the founder of Washington University in St. Louis, but he was also an educator, minister, and civic leader. William G. Eliot Jr. shared his name with his grandfather and he shared his grandfather with many cousins, including the illustrious writer and Nobel Prize winner, T.S. Eliot.

In a letter to William Eliot dated October 12, 1884, Fisher noted, “When I hear fellows of my own age speak with religious enthusiasm, I feel more well disposed toward christianity [sic]. However, I still adhere to this: that every belief should be controlled by the reason. I want to settle the question of religion but I want to settle it on grounds of truth.”<sup>9</sup> Fisher may not have personally believed in religion, but he was definitely atheist, not antitheist and there is an important difference. One does not believe in the existence of a god, the other is opposed to the idea of one. Fisher believed that there was a place and purpose in the world for religion. On October 22, 1917 he gave an address at Rev. Eliot’s Unitarian Church in Portland, Oregon, in which he spoke on one of the topics dearest to his heart, hygiene, and its relationship to religion. In what his son described as “his impassioned plea for cooperation between science and religion,” Fisher is quoted as saying, “I make no apology for speaking from a pulpit on Health and Religion, although you may be accustomed to think of science and religion as more or less antithetical to each other.”<sup>10</sup> Fisher went on to explain that it was his personal experience with tuberculosis that made him become such a proponent of health and made him see that health was a concern of not just doctors and

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<sup>8</sup> Irving Norton Fisher, *My Father, Irving Fisher* (New York, NY: Comet Press Books, 1956), xiii.

<sup>9</sup> Fisher, *My Father*, 18.

<sup>10</sup> Fisher, *My Father*, 177-178.

scientists but of Christianity itself. He commented that Christianity was designed to help bring health to the world.<sup>11</sup>

Fisher gave up on his personal belief in God, but he clearly never gave up the zeal or the foundations laid by his Puritan stock father. In his biography of Fisher, Robert Loring Allen (1921-1991), Professor Emeritus of economics at the University of Missouri-Saint Louis, noted, “His [Fisher’s] Puritan religious training taught Fisher that any person with ability must use his talents and effort to improve the human condition. To Fisher, his causes were a moral, in practice, a religious commitment.”<sup>12</sup> Fisher’s treatise on eugenics reads very much like a sermon. He may have put down the Bible, but instead he picked up the Gospels of Reform, both economic and social.

Puritanism strongly influenced Charles Davenport, especially when it came to his work ethic. Termed by German sociologist Max Weber (1864-1920) in his series of writings from 1904-1905, and originally translated into English by Talcott Parsons (1902-1979) in 1930, the “Protestant ethic” as a conceptual belief that evolved from the Reformation itself.<sup>13</sup> The idea is easiest summarized as every person is given a gift, a calling from God by which they can make a living. And one is obligated then to respect God’s gift and calling for them by being the best at what they do. For example, if your gift and calling was to be a teacher, then you must strive to be the best teacher because in doing so your success gave glory to God. It is an idea that associates work, and success at it, with divinity.<sup>14</sup> Weber tied the Protestant ethic to what he called “the Spirit of Capitalism,” making the claim that capitalism

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<sup>11</sup> Ibidem.

<sup>12</sup> Allen, *Irving Fisher*, 4.

<sup>13</sup> Max Weber, *The Protestant Ethic and the “Spirit” of Capitalism and Other Writings* (New York, NY: Penguin Books, 2002).

<sup>14</sup> Francis J. Bremer, *Puritanism: A Very Short Introduction* (New York, NY: Oxford University Press, 2009), 56.

could only thrive in an environment fueled by the Protestant ethic. The one important thing that Weber missed in his assessment is that Puritans did believe that one could pursue their calling to excess and that was a bad thing. If one became so wrapped up in their job that they neglected their family or the church, that was a bad thing. Work was highly valued, but it had a place and purpose.<sup>15</sup>

Both Davenport and Fisher were workaholics. Neither man was known for taking much down time from their lives as men of science and policy making. For that matter the same can be said of Pearson, who was of Quaker stock not Puritan. Quakers, like Puritans, are a Protestant denomination, equally exposed to the Protestant ethic. By the time the different Protestant sects settled in America, they had created a new, collective identity as Congregationalists, setting aside their differences and focusing more on the features of Protestantism that they all shared. None of the four men examined in this dissertation were considered devout in their religious practices, although they all expressed nostalgic sentiment towards their religious backgrounds. Weber's theory of the Protestant ethic does, however, seem to apply to all four of these influential figures in the eugenics movement. This is not to say that eugenics has an officially affiliated religion or has not been practiced by those other than Protestant Christian sects. In Britain and America though, there is a strong correlation between some of the same Protestant teachings that Weber noted made capitalism flourish and the leaders of the eugenics movement. The idea of heredity, of pedigree, is as old as human agriculture. But eugenics, as a concept and as a movement, was seen as a modern solution to such age-old problems as crime and poverty. Arguably what really ties both capitalism and eugenics to Protestantism is that they were a system and a movement that

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<sup>15</sup> Ibidem.

sought to reform, which is the very impulse that gave birth to Protestantism.

Health would become Fisher's personal crusade. As he made the argument that religion had a key role in advocating for health, Fisher tied together health and eugenics. In his treatise he explained that there were two special junctions between hygiene (a word he used interchangeably with health) and eugenics. The first was another of Fisher's progressive interests, alcohol, and the argument in favor of prohibition. Alcohol was an "unhygienic habit" that tainted and deformed the "germ plasm" of future generations.<sup>16</sup> Eugenics could be used to prevent those with "germ plasm" already "tainted" by alcohol from passing down their deficiency to future generations. The second point of contact between hygiene and eugenics was what Fisher called "social hygiene." He explained it as society's duty to prevent the inheritance of disabilities such as blindness, conditions that Fisher argued were a burden not only on the individual who possessed them, but on the entire human race.<sup>17</sup>

Fisher joined the eugenics movement later than Davenport, but it was still relatively early in the development of American eugenics. His first known letter to Davenport was dated October 30, 1909.<sup>18</sup> And it would not take long for him to become a leader in the movement. One of the many indexes collected in Davenport's extensive collection of personal papers is a list of the former presidents of the Eugenics Research Association, one of the many eugenics societies that existed in America around 1920. The first president listed, serving from 1919 to 1920, was John Hopkins University affiliated psychiatrist and educator Dr. Stewart Paton (1865-1942). The second president, serving from 1920 to 1921, was Irving Fisher. It is noteworthy that in addition to the ten presidents who had served,

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<sup>16</sup> Fisher, *Eugenics*, 70.

<sup>17</sup> Fisher. *Eugenics*, 70-73.

<sup>18</sup> Charles B. Davenport Papers, Fisher, Irving – Folder 1, 1909-1913, B: D27, American Philosophical Society, Philadelphia, Pennsylvania.

Davenport also recorded the acting secretary of the Eugenics Research Association, who served continuously from 1920 onwards. That man was well-known eugenicist Harry H. Laughlin (1880-1943).<sup>19</sup>

A question that will undoubtedly be asked of this study is, “What about Laughlin?” Without question, Laughlin was one of the most significant American eugenicists. He was a pioneer, like Davenport. He was intentionally left out of this study, however, because he is well-known among historians and academics. No one is apologizing for Laughlin like Cold Spring Harbor is for Davenport. No one is brushing his eugenics aside as a footnote, as happens with Fisher, who is well-known as an economist, but has not been held fully accountable as a serious, leading eugenicist. The author is well aware that there will be criticism for leaving Laughlin out, but this is a history that needs to be told from a new perspective, bringing lesser-known agents into the foreground.

Among Davenport’s papers there is a letter to Fisher, dated December 2, 1925, signed by a man named Paul F. Voelker. Little is known for sure about Voelker. A newspaper article from the *Battle Creek Enquirer*, dated April 23, 1926, confirms that Voelker was president of Battle Creek College and Sanitarium in Battle Creek, Michigan, as of that time.<sup>20</sup> It is highly possible, though not confirmed that he is the same Paul F. Voelker who served as president of nearby Olivet College from 1920-1925. If so, his life dates were 1879-1943, which correlates closely with Fisher’s own life dates (1867-1947). Voelker wrote about how impressed he was with a recent eugenics exhibit and conference at Battle Creek organized by

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<sup>19</sup> Charles B. Davenport Papers, American Eugenics Society – Folder 1, 1925 December-1927 January 3, B: D27, Sec. I Professional Papers, American Philosophical Society, Philadelphia, Pennsylvania.

<sup>20</sup> “Fourteen of Faculty to have Degree of Doctor,” *Battle Creek Enquirer*, April 23, 1926: 7, accessed January 31, 2021, <https://battlecreekenquirer.newspapers.com/clip/12723828/battle-creek-enquirer/>.

members of one of Fisher's unnamed organizations.<sup>21</sup>

"I myself have become so enthusiastic over the work which your society is doing that I wish to take this opportunity of inviting you to locate in Battle Creek," Voelker wrote, "As you know, Battle Creek College and Sanitarium are dedicated to race betterment. Nothing would be finer than your society to establish a research laboratory on our campus and to conduct your extension propaganda from here."<sup>22</sup> There is a lot to unpack in this invitation. First there is recognition of the crucial role that Irving Fisher personally played in advocating for the advancement of eugenics in America. There is also the intentional use of the word "propaganda" that illustrates the political nature of Fisher's advocacy. Then there is the blatant declaration of what Battle Creek College and Sanitarium was, an institution founded on the principles of white supremacy. And from that comes the explicit implication that Fisher supported white supremacy through his eugenics. From the beginning of this research the question has been asked whether eugenics was an inherently racist movement and in tracing its evolution from Galton's original idea to Fisher's practice the answer is, no, it did not start as such; however, yes, it did become so. Earlier, when this study began in 1883 Britain, it was possible to tease racism out of the idea of eugenics. By the time we reach the mid-1920s, the zenith of American eugenics, the movement was decidedly one of white supremacy.

This author believes that Fisher can be linked to white supremacy in the eugenics. But

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<sup>21</sup> Although it was not formally incorporated until January 30, 1926, the folder in Davenport's personal papers where this invitation was found would suggest that the society in question is what would become the American Eugenics Society. This makes sense given the fact that the purpose of the American Eugenics Society was education and while this was not only Fisher's idea, he did serve as its first president.

<sup>22</sup> Charles B. Davenport Papers, American Eugenics Society – Folder 1, 1925 December-1927 January 3, B: D27, Sec. I Professional Papers, American Philosophical Society, Philadelphia, Pennsylvania.

not all agree with that assessment. In his biography of Fisher, Allen declares the exact opposite, in fact:

It never occurred to Fisher that some people might regard his espousal of eugenics as racial bigotry. For him, it was simply the maintenance and improvement of the race. If Irving Fisher's support of eugenics made him a racist, then perhaps he was. He believed in maintaining racial purity and did not favor any form of miscegenation. He was unclear, however, as eugenics was often unclear, on exactly what a race was or what the race was that he was trying to preserve or keep pure. Eugenics was a popular movement among many intellectuals in its day.<sup>23</sup>

This claim needs to be carefully scrutinized. It is true that the concept of race in Fisher's time is not the same as our conception of it now. But if anything, racial boundaries have been broadened to include more people in the category of "whiteness" now than in Fisher's time. In the early twentieth century the only ones acknowledged as being truly "white" were those of Anglo-Saxon or otherwise Nordic descent. Spaniards were not considered "white" at that time. Italians were not considered "white" at that time. The Irish were not considered "white." "Whiteness" has grown since Fisher's time, not contracted. The argument that white supremacist eugenicists were unclear on how they defined race is incorrect. All you have to do is read Madison Grant's *The Passing of the Great Race* (1916).

Arguing that eugenics was a popular movement of the time is a red herring. Fisher was not pulled into eugenics because of how popular it was. He was one of the individuals who helped make it so popular. Fisher was no innocent intellectual who fell into the fad of eugenics, he was a willing engineer of that fad. One thing that Allen is right about, is that supporting eugenics did not necessarily make an individual a racist. There were African American eugenicists, the significance of which will be discussed more in the conclusions of this dissertation. Their mere existence, however, does reinforce the fact that eugenics could

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<sup>23</sup> Allen, Irving Fisher, 150.

exist outside of racism, and when it did, it existed within the realm of classism instead.

Allen doubles down on his defense of Fisher, though, going on to assert:

Fisher was certainly not a racist if one defines that term to include the belief that some races are innately superior to others or that he belonged to such a race. He did not believe in discrimination, isolation, and persecution as appropriate ways for one race to treat another, although he accepted the segregation of his day. Many, it is true, who took up eugenics, did harbor sentiments of racial superiority and did practice discrimination, but Fisher did not.<sup>24</sup>

Here is a riddle: what do you call a privileged white man from the early twentieth century who “believed in maintaining racial purity,” “did not favor any form of miscegenation,” and “accepted the segregation of his day”? The answer is “a racist.” Allen’s own words damn Fisher as much as his known associations with confirmed racists such as Davenport, whom Fisher learned eugenics from, and John Harvey Kellogg (1852-1943), founder of Battle Creek sanitorium and college. You cannot say in one breath that Fisher did not discriminate and then admit with the next that he “accepted” segregation. He did not “accept” it, he believed in it otherwise he would have spoken up against it. Fisher was a very vocal advocate of the things he believed in and equally outspoken about the things he did not believe in and his resounding silence on the issue of racism and racial justice speaks in volumes.

What he did speak of was “race betterment,” meticulously explaining how to breed out the black color of skin, while warning that such a “white octoroon” would still carry the taint of “negro characteristics such as woolly hair, flat noses or thick lips.”<sup>25</sup> Read Fisher’s own words on eugenics and race. “By this kind of *isolation*, we can save the blood stream of **our race** from a tremendous amount of needless contamination.”<sup>26</sup> Allen was not a historian. Telling an accurate social history was not the purpose of his biography of Fisher. That is the

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<sup>24</sup> Ibidem.

<sup>25</sup> Fisher, *Eugenics*, 49-50

<sup>26</sup> Fisher, *Eugenics*, 59.

purpose of this dissertation however, and Fisher will not be granted a pass for being a mere product “of his day.” There were others “of his day” who knew eugenics was wrong and spoke out against it.

Fisher’s link to Davenport is also extremely important in this argument. When Fisher spoke of breeding out the black, he was quoting the findings of Davenport’s study on Jamaica. Davenport has been established as a racist and he was Fisher’s introduction into eugenics, the two were closely connected, especially early in Fisher’s eugenic crusade. They served together with Fisher as chairman and Davenport as vice-chairman on the board of the International Commission on Eugenics and its Eugenics Committee of the United States in 1925.<sup>27</sup> In total, Davenport’s papers contain over twenty years of correspondence between himself and Fisher from 1909 to 1933. Their personal correspondence is by far one of the largest in Davenport’s collection and Davenport corresponded with all the most well-known names in eugenics, from Sir Francis Galton (1822-1911) to Henry H. Goddard (1866-1957), Leonard Darwin (1850-1943) to Harry Laughlin. Davenport’s network even extended beyond what is commonly considered the realm of eugenics. For example, he had extensive correspondence with notable scientist and the founder of American psychology, James McKeen Cattell (1860-1944). That is why examining Davenport previously was so crucial to this entire study. Davenport was a link between Galton, Pearson, and Fisher. Arguably Fisher’s eugenics were received by a larger popular audience than Davenport’s. Davenport knew all the right people. Fisher, however, was known to the public. It seems strange to think of an economist, and a mathematical one at that, as a celebrity, but in his time, Fisher truly was that. His name was famous, his opinions were not only widely broadcasted, but accepted

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<sup>27</sup> Charles B. Davenport Papers, Fisher, Irving – Folder 7, 1925, B: D27, American Philosophical Society, Philadelphia, Pennsylvania.

by policy makers and the American public at large as fundamental truths, until the Great Depression exposed the flaws in his economic theories. Fisher testified before more than one Congressional committee, on topics from economics to his various reform crusades. He was extensively published in both professional **and** popular periodicals, which is how so many everyday Americans came to know him.<sup>28</sup> He addressed them directly through a mode of media they widely consumed at the time.

Fisher's eugenics have not gone entirely ignored by historians and other academics. There may not be monographs available on the subject, but in recent years there has been a fair number of academic articles published on the matter. In one of them, "*Breed out the Unfit and Breed in the Fit*": Irving Fisher, Economics, and the Science of Heredity, French economist, Prof. Annie L. Cot makes a compelling argument that Fisher's economics and eugenics were separate, sometimes even contradicting, "double careers," but that the driving impulse behind both was Fisher's desire to make economics, eugenics, and the world at large more scientific.<sup>29</sup> Fisher expressed those intentions towards economics specifically in 1933 when he wrote, "I was a student of mathematical physics and, with youthful enthusiasm, dreamed dreams of seeing economics, or one branch of it, grow into a true science by the same methods which had long since built up physics into a true and majestic science."<sup>30</sup> The parallel here between what Fisher dreamed of doing for economics and what Pearson dreamed of doing for eugenics is remarkable. They had the exact same vision, using the exact same method of legitimacy, statistics. Both wanted to make their respective fields "true"

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<sup>28</sup> William J. Barber, "Irving Fisher (1867-1947) in Retrospect." *The American Economic Review* 87, no. 2 (1997): 446, accessed February 14, 2021, <http://www.jstor.org/stable/2950965>.

<sup>29</sup> Annie L. Cot, "'Breed out the Unfit and Breed in the Fit': Irving Fisher, Economics, and the Science of Heredity," *The American Journal of Economics and Sociology* 64, no. 3 (2005): 796, accessed February 1, 2021, <http://www.jstor.org/stable/3488160>.

<sup>30</sup> Irving Fisher, "Statistics in the Service of Economics," *Journal of the American Statistical Association* XXVIII(181, 1933): 2.

sciences.

Most are familiar with the basic scientific method; it starts with a hypothesis, a simple idea, which is then observed, experimented based on, and tested repeatedly until it is verified, at which point it goes from a hypothesis to a theory. Many theories, some competing, can exist within one body, or field, of knowledge. In an established field it is inevitable that theories will arise on the fringes, as outliers. They have been verified but are not generally accepted. That is how Darwinian evolution began, as a fringe theory in biology, one that gained credibility as more experimentation and experience built up evidence in its favor. And that is how the move from a fringe theory to a mainstream one should be accomplished, through the building up of evidence and credibility. In the early twentieth century though there were so many newly emerging theories in many developing and changing fields. Physics was one of the most exciting, developing branches of science in the 1930s. Its theories and discoveries were followed with awe by the public through popular magazines and made superstars out of scientists, most notably Albert Einstein. Fisher visited Einstein at his Rhode Island summer home during the mid-thirties. According to Fisher's son, "Their stratospheric discussion of the fine points of relativity was too erudite for me [to partake in the conversation]."<sup>31</sup> If Fisher could hold his own in discussion with one of the most brilliant scientific minds in all of history, he absolutely deserved the title of "scientist" himself. And he used the same medium, popular magazines, to propel himself and his theories to celebrity status.

Some theories made the leap from the fringes to the mainstream not due to careful research and verification, but as much as due to the lack of falsification. Philosopher of

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<sup>31</sup> Fisher, *My Father*, 38.

science, Karl Popper (1902-1994), would become a proponent of the idea that empirical (known through the senses) scientific theories could never be “proven,” but they could be falsified as a measure of accuracy and reliability.<sup>32</sup> Popper’s work was originally published (in German), in 1934, in hindsight of the “boom and bust era” of theories that were the last two decades of the nineteenth and first two decades of the twentieth centuries. During that forty year span several theories quickly appeared and disappeared in the social and hard sciences. Theories like some of Fisher’s neoclassical theories of economics, which were not proven so much as disproven, or, as Popper would say, falsified. Fisher did succeed, however, in bringing an element of “true science” to economics. Mathematical models, and analysis, of economics have gone from the oddity they were in Fisher’s time to a norm of the field.

Eugenics started as a fringe theory in biology, and thanks to the work of advocates such as Davenport and Fisher, there was a serious attempt to make it an independent scientific field. And just as some of Fisher’s economic theories were falsified, so too were some of his eugenics. But not all, in either case. Contrary to popular belief, the theory of eugenics itself is not a relic of history. It is still practiced in the current day. Overall, Fisher did succeed in at least bringing elements of “true science” to both his fields of study, economics, and eugenics.

Cots points out that Fisher was not the only known economist of his time to endorse eugenics, bringing up institutional economist John R. Commons (1862-1945), who despite his different school of economic thought was also a political progressive like Fisher.<sup>33</sup> Cot describes Fisher’s theories of eugenics as a “synthesis” of Galton’s and Pearson’s, a

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<sup>32</sup> Karl Popper, *The Logic of Scientific Discovery* (New York, NY: Routledge Classics, 2002)

<sup>33</sup> Cot, “Breed out the Unfit and Breed in the Fit,” 797.

conclusion that can easily be made when analyzing the theories of all three men as this dissertation does.<sup>34</sup> The problem with Cot's assessment is that it solely credits Fisher for his eugenic theories without acknowledging just how much "his theories" were actually taken from Davenport. Cot does credit Davenport with initiating Fisher into the "rites" of eugenics, as it were, but does not seem aware of how Davenport laid the foundation for the eugenics Fisher would become known as the champion of. That is not surprising though given how all three men whose eugenic theories Cot writes about, Galton, Pearson, and Fisher, were public figures. All three of them, to some degree or another, reveled in the limelight, Galton and Fisher more gracefully than Pearson, perhaps. Davenport remains a hidden figure. His contributions to eugenics have been chronically overlooked when he was, in fact, the glue holding all these other figures and their theories together as a cohesive body of knowledge.

Cot makes the argument that Fisher should be known at least as well as a eugenicist as he is an economist. In her article she stated, "Eugenics therefore is a meta-theory for all social sciences... His [Fisher's] ambition was becoming borderless—and the rationale given for it is that eugenics should be the ultimate reference for all social sciences."<sup>35</sup> Once Fisher becomes an eugenicist, according to Cot, his eugenics bled into every other aspect of his life and career, including his economics. Fisher would agree with that assessment. In fact, he declared, "This leads me to say that eugenics is a wonderful a touchstone. I believe eugenics will be in the future the essential foundation of ethics."<sup>36</sup> He goes even further to say, "But the time will come when, instead of asking whether eugenics is right or wrong according to

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<sup>34</sup> Cot, "'Breed out the Unfit and Breed in the Fit,'" 801.

<sup>35</sup> Cot, "'Breed out the Unfit and Breed in the Fit,'" 801.

<sup>36</sup> Fisher, *Eugenics*, 76.

some false conventional standard, we shall ask ourselves whether these conventional standards are right or wrong according to the standard of eugenics, the highest standard there is.”<sup>37</sup> These are the words of a man who has brought into American eugenics lot, stock, and barrel.

At the same time though, Cotts does acknowledge that Fisher brought elements of economics into his eugenics, “If eugenics is to provide economics with some explanations of the value of the stock of human capital, economics may offer some new instruments to eugenics in its attempt to appear as a ‘science’...”<sup>38</sup> This theme of dichotomy is strong with Fisher. He was a teacher and a preacher of the social gospels, an economist and a eugenicist, a celebrity figure and an academic. There was only one role he seemed to play exclusively, without a fixed counterpart. Irving Fisher was a policy-maker, in fact, it could be argued that he was a politician of sorts. He was even asked by the Independent Republicans of Connecticut to run for the U.S. Senate in 1932, a bid he very seriously considered, although ultimately did turn down.<sup>39</sup>

Fisher was not a political partisan, although he did tend to incline towards Republicans. Fisher was really, first and foremost, a true American Progressive. The American Progressive movement is today identified almost exclusively with left-wing, liberal, politics but that was not true of the historical movement. Progressivism was both right and left wing. In fact, there were three Progressive presidents in American history and two of them were Republicans (Theodore Roosevelt and William Taft), while the third (Woodrow Wilson) was a Democrat. Progressivism is really a massive umbrella term under

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<sup>37</sup> Fisher, *Eugenics*, 78.

<sup>38</sup> Cot, “Breed out the Unfit and Breed in the Fit,” 806.

<sup>39</sup> Allen, *Irving Fisher*, 246.

which several different, sometimes even conflicting, political policies and social reforms were sheltered and advocated for. Some of the most popular Progressive impulses were conservation, urban developing, education, prohibition, sanitation, public health, and yes, eugenics. Fisher was a strong supporter of prohibition, although according to his son, “After the Eighteenth Amendment became the law of the land, he [Fisher] soon realized that this sweeping reform had come too soon. He deplored the rise of bootlegger and racketeer, and the prevalence of disrespect for the law even among the ‘best’ people.”<sup>40</sup> Fisher did have a very rigid idea of what made for a “healthy” diet though and that included not only no consumption of alcohol, but also no consumption of tea, coffee, tobacco, refined sugar, bleached white flour, and meat.<sup>41</sup>

Education, one of the hallmarks of the Progressive movement, was in essence what Fisher devoted his entire life to in some form or another. Progressives were particularly concerned with educating the working classes as a way to “uplift” them. This was really a ploy for socio-economic conformity. Progressives were almost entirely upper middle class, and they held the values of the upper middle class in reverence. They saw the upper classes as being pampered, unscrupulous, frivolous, and wasteful. There was nothing they could realistically do to change any of that, however, so instead they focused their reform efforts on the working class and the poor, whom they saw as polluted, indolent, ignorant, and sinful and those were the charitable terms they used. The Progressive push for education was to make the working class aspire to (while knowing that they could never hope to actually achieve) the enlightened superiority of the upper middle class.

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<sup>40</sup> Fisher, *My Father*, 154.

<sup>41</sup> Fisher, *My Father*, 147.

This is not to say that all Progressives were disingenuous in their desires to truly help make the lives of the poor and working classes better. There were a lot of Progressives and surely some of them truly sought to help better the lives of the poor. But Fisher appears to be more of the norm than the deviation when it comes to figureheads in the Progressive movement. Yes, he did truly desire the betterment of *society*, but as far as individual people were concerned, no one was safe from being sacrificed on the altar of “the greater good.” It should also be pointed out Progressive eugenicists took the social stratification of general Progressivism and added more layers of complexity, promulgated hierarchies of gender, class, intellect, moral character, as well as race.<sup>42</sup>

The era of American Progressivism is generally dated as 1870-1920. Fisher started his career in Progressive politics in 1907.<sup>43</sup> That was the year he helped found the Committee of One Hundred on National Health. He would persuade his lifelong friend Eliot to become the organization’s west coast anchors. In his biography of Fisher, Allen wrote, “The committee had many goals, including publicity and education. One specific goal was to promote establishing a Department of Health in the United States government.”<sup>44</sup> Here we see all the hallmarks of Progressivism; education, reform, public health, and politics. What made Progressivism so successful as a movement was that it did have so many different moving pieces. And by emphasizing education and then tying it, as Fisher did, to publicity, they placed themselves in a position to reach as many people as possible with their message.

It should be noted that at this same exact time, Fisher had become disillusioned as a professor at Yale, which is where he started his teaching career. “He did not neglect

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<sup>42</sup> Thomas C. Leonard, *Illiberal Reformers: Race, Eugenics & American Economics in the Progressive Era* (Princeton, NJ: Princeton University Press, 2016), 120.

<sup>43</sup> Fisher, *My Father*, 147.

<sup>44</sup> Allen, *Irving Fisher*, 96.

completely his teaching at Yale, but clearly it did not have high priority,” Allen noted. He went on to explain the dynamic between Fisher and Yale:

As a young man Fisher made two discoveries about Yale University. One was that he could have little impact on what happened at Yale. His accomplishments only made his colleagues jealous and meant little to them. An establishment ran Yale and Fisher was not a part of that establishment. He was not in the mainstream of thinking at Yale whose faculty thought him strange and whose administration tolerated him. Of course, Yale valued Fisher as he valued Yale, but he was not part of the in-group.<sup>45</sup>

Given how charismatic and popular he was in so many of the circles he frequented, it seems peculiar to imagine Fisher as an outsider. But perhaps that is exactly why he branched out so aggressively into other fields outside of academia. Fisher never broke ties with Yale though. He retired from there in 1935, earning the distinction of professor emeritus. He is still well-known today as one of the university’s many notable alumni and former faculty.

Clearly, however, Fisher did actively seek other bases of operation, such as Battle Creek, outside of Yale. This is a difference between Fisher and Davenport, who was singularly devoted to his academic home at Cold Spring Harbor. It also makes him different though from Pearson, the other dedicated academic this dissertation looks at. During his academic career Pearson went from King’s College, Cambridge to King’s College, London to the University of London, where he eventually retired from. Fisher sought another place to belong, but he would never quite let go of Yale. As for Galton, while the founder of eugenics was without question a brilliant intellectual, he was not a career academic. In fact, he was the only one of the four figures this dissertation studies who was not a teacher by trade.

In 1909, Fisher testified before a Senate Committee for the first time on a topic not related to economics. He spoke on the need to establish a department of health and, according to his son, gave a rousing presentation, “The gallery’s enthusiasm was so articulate

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<sup>45</sup> Ibidem.

that the chairman of the committee had to ‘request them to abstain from applause.’”<sup>46</sup> The overall effect he had was nominal though, “Eight hundred pages of testimony later, the net gain was merely a change in nomenclature.”<sup>47</sup> But Fisher had gotten a taste for Progressive reform and he was not satisfied with a mere bite. I meant to savor on the entire feast he now found before him.

Fisher attended both the Republican and Democrat presidential convention in 1912 “to work behind the scenes for the adoption of a suitable public health plank.”<sup>48</sup> This would start a tradition of interviewing and endorsing a presidential candidate that Fisher would carry on until 1940.<sup>49</sup> Although he was still alive when Franklin D. Roosevelt ran for and won his historic fourth term in office, in 1944, Fisher did not bother to interview the candidates that presidential cycle. He was severely disillusioned with Roosevelt, whom he resented for repealing prohibition and not enacting more of Fisher’s economic policies. And frankly by 1944, Fisher’s once shining star had greatly tarnished and would not recover until decades after his death, when his economic policies would be “rediscovered” starting in the late 1960s. Arguably Fisher, possibly the most famous of the eugenicists analyzed in this dissertation, would go from having the most to losing the most of the four men. Galton would die still renowned, glorified even. Pearson died respected. Davenport faded from existence. Fisher would be the one to actually suffer a fall from grace, although that would not be due to his eugenics.

Or was it? In his book about his father, Irving Norton Fisher, who expertly edited and curated his father’s massive collection of correspondence for his book, does a very curious,

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<sup>46</sup> Fisher, *My Father*, 148.

<sup>47</sup> *Ibidem*.

<sup>48</sup> Fisher, *My Father*, 155.

<sup>49</sup> Allen, *Irving Fisher*, 277.

but clever thing. In the index, the word “eugenics” is listed and even has eight listed references. When turning to a referenced page, however, this is type of statement found, “developing the Eugenics Society...”<sup>50</sup> Or this, “Pointing out the Eugenic tragedy (killing off of our manhood)...”<sup>51</sup> Literally the word “eugenics,” but not a single word of explanation is included as to what that word meant, in general or to Fisher personally, how he was connected to it, or what an important piece of his social reform platform it was. Oh yes, eugenics is technically there. It has not been written out completely from the history. It has, however, been numbingly toned down and intentionally so. The younger Fisher’s book on his father was published in 1956, by which time the once shining star of eugenics had also greatly tarnished and fallen from grace. With it being less than a decade since his father’s death, Irving Norton Fisher possibly reasoned that there could be no denying his father’s involvement with the eugenics movement. There would have still been plenty of people alive who were knowledgeable about the matter. What he did instead was downplay it. Acknowledge its presence, but not give it a good, hard look.

That has been the general attitude of academics reflecting on Fisher’s legacy. Eugenics is often mentioned, but not often focused on. Not surprisingly most focus on his legacy as an economist, however, historian of economics and author Thomas C. Leonard makes the argument that at some point the two were intrinsically linked during the Progressive era. In his book, *Illiberal Reformers: Race, Eugenics & American Economics in the Progressive Era* (2016), Leonard starts chapter 7, “Eugenics and Race in Economic Reform,” with a concise and well-researched history of eugenics starting with Galton. In the first two sections of this chapter, all four of this dissertation’s focal figures make

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<sup>50</sup> Fisher, *My Father*, 222.

<sup>51</sup> Fisher, *My Father*, 177.

appearances. Fisher is the first economist Leonard ties to the eugenics movement while Pearson is briefly mentioned as the biographer and intellectual heir of Galton. Perhaps best of all, Charles Davenport is not only named, but Leonard singles him out as “the acknowledged leader of the American eugenics movement.”<sup>52</sup> While Davenport is not generally “acknowledged” as the leader of American eugenics, that title would likely go to either Kellogg or Laughlin as they tend to be the eugenicists most researchers focus on, Leonard is not wrong. Davenport was in fact the real leader of American eugenics, acknowledged or not.

There is another figure Leonard mentions early in this chapter, who historians need to take a closer look at, Madison Grant (1865-1937). Grant received mention in Davenport’s chapter as the two men corresponded extensively. In Leonard’s words, “Historians invariably style Madison Grant a conservative, because he was a blueblood clubman from a patrician family, and his best-known work, *The Passing of the Great Race*, is a museum piece of scientific racism.”<sup>53</sup> Indeed that is what Grant is known for, scientific racism. Historians tend to tread carefully when it comes to boldly calling out historical figures as white supremacists, but there is simply no way to dance around it with Grant. He made his belief in white supremacy crystal clear. That is the reason this study chose to not include him in its analysis, which will be explained in more detail in the conclusion of this dissertation. Grant is a figure though that has been accepted at face value too much. He is almost dismissed by most academics because his theories were so outlandish by today’s standards that they do not seem worthy of serious attention. But to write Grant off as some white supremacist, one-trick pony is to fail in giving an accurate account of the past. The way Grant’s theories are received now is not how they were received back when he originally purposed them. And his ties with

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<sup>52</sup> Leonard, *Illiberal Reformers*, 113.

<sup>53</sup> Leonard, *Illiberal Reformers*, 115.

other eugenicists, such as Davenport, as well as other Progressive reformers, like Fisher, needs to be scrutinized more.

Leonard reinforces a point made by Cots that Fisher was not alone in his social reforms among economists. “Many progressive economists followed Irving Fisher in believing that reforms regulating race poisons, such as alcohol, tuberculosis, and sexually transmitted diseases, would improve heredity as well as public health. John R. Commons was this sort of neo-Lamarckian.”<sup>54</sup> What is so remarkable about Commons and Fisher sharing these views, and why I keep bringing up references to his name, is because Commons came from a different school of economics altogether than Fisher. In their primary field of economics, the two disagreed on much. But when it came to eugenics, they were very much on the same page. “Like Fisher, Commons used neo-Lamarckian logic to justify reform, while also advocating more direct measures. Uplift was socially costly. Eugenics was cheap.”<sup>55</sup> Right there, in that one quote, the junction where economics and eugenics met is at last made clear. So many Progressive economists were concerned with eugenics because they saw it as the most cost-effective way of improving society. That was what progressivism was supposed to be all about, bettering society. And economists who supported the progressive movement wanted to use their skills, their field, to help the cause be achieved in the most efficient manner. Economics was, after all, trying to make itself more scientific at that time, just as so many other fields were, and science was all about increased efficiency and productivity.

Fisher proved to be a true man of duality in how he saw the world and with that came at least some desire to balance both sides. He wanted to see eugenics and economics merge,

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<sup>54</sup> Leonard, *Illiberal Reformers*, 117.

<sup>55</sup> *Ibidem*.

the one influencing the other. So too did he want to see an amalgamation of science and religion. In his treatise on eugenics he wrote, “And so it will some day come about that we shall realize the dream of the founder of this science, Sir Francis Galton, and will link up eugenics with religion.”<sup>56</sup> Further along he made his vision even more vivid, “We shall make eugenics the biggest pillar of the church, and eugenics will become embedded in the religion of the future. It shall happen hereafter that instead of conflicts between science and religion, these two great human interests will be marching together, hand in hand.”<sup>57</sup>

There is something ironic about reading Fisher, the self-avowed atheist, talking about religion and science coming together to create a bright new future. The man came across as much as a preacher as he did a teacher. He certainly spoke on eugenics with a zealotry, and a high degree of faith. All four men, Galton, Pearson, Davenport, and Fisher believed in eugenics. They believed that it held the answers to problems that had plagued humanity’s history, such as poverty and disease. They believed that eugenics could create a new and better future. In that respect, eugenics does not come across as the same menacing threat that it does when it is considered as a tool of white supremacy.

Galton made the argument that the purpose of eugenics was the betterment of all humanity, not just one kind of man or another. The end goal, according to him, was to create the best specimen of all different kinds. It is easy to see the appeal of such a concept to someone like Irving Fisher, a man who lost his father and nearly lost his own life to tuberculosis. In the Nineteenth Century, disease in general and tuberculosis in particular, took on all new meanings:

The nineteenth century marked a great advance in public health. "The great sanitary awakening"—the identification of filth as both a cause of disease and a vehicle of

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<sup>56</sup> Fisher, *Eugenics*, 78-79.

<sup>57</sup> Fisher, *Eugenics*, 85.

transmission and the ensuing embrace of cleanliness—was a central component of nineteenth-century social reforms. Sanitation changed the way society thought about health. Illness came to be seen as an indicator of poor social and environmental conditions, as well as poor moral and spiritual conditions. Cleanliness was embraced as a path both to physical and moral health. Cleanliness, piety, and isolation were seen to be compatible and mutually reinforcing measures to help the public resist disease. At the same time, mental institutions became oriented toward "moral treatment" and cure.<sup>58</sup>

Fisher no doubt felt a stigma attached to his and his father's illness. Throwing himself into the very heart of the fight for public health may have been a matter of redemption for Fisher. He was actively trying to be the better man Galton idealized, a man who had no fear or taint from a disease like TB with all its negative, dirty connotations. Fisher was trying to bring purity to America through eugenics. The problem is his idea of "purity" had no room for diversity. He embraced Galton's vision of creating perfection within all of humanity, but to that he added the prejudice of Anglo-Saxon superiority. Fisher not only saw diseases as being "dirty," he saw people with dark skin as being "polluted" too. "Purity" to Fisher meant "white" and what he would consider "blood purity." That fact is spelled out all over his son's description of his mother, Fisher's wife, Margaret "Margie" Hazard (1867-1940), when the couple first met. "But every movement of her statuesque figure testified to the gentleness of her patrician heritage."<sup>59</sup> That is a description meant to evoke images of a "pure," and well-born, woman. The perfect match for a man such as Fisher.

Like the other three eugenicists in this dissertation, Fisher was a happily married man. His son describes the meeting of his parents as love at first sight, at least for Fisher, and their

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<sup>58</sup> Institute of Medicine (US) Committee for the Study of the Future of Public Health, *The Future of Public Health*, (Washington (DC): National Academies Press (US); 1988), accessed February 20, 2021, <https://www.ncbi.nlm.nih.gov/books/NBK218224/>; Nancy Tomes, *The Gospel of Germs: Men, Women, and the Microbe in American Life* (Cambridge, MA: Harvard University Press, 1998).

<sup>59</sup> Fisher, *My Father*, 54.

courtship as “a whirlwind.”<sup>60</sup> Without question, Fisher married up, although given the chance first meeting of the pair, from which time Fisher was smitten, no one can accuse him as having plotted such an advantage match. The Hazard family had not only had a prestigious lineage, but a fortune as well. Most of that fortune would go to Margaret’s elder, spinster sister, Caroline. Margaret was the youngest of three girls and by all accounts quite doted on by her family. Fisher had to prove himself a man worthy of his wife’s hand, which he did by virtue of his rising star at Yale and in the world of economics.<sup>61</sup> The two married in 1893 and would remain devoted to one another until Margaret’s death.

Both Pearson and Davenport had children, although neither seems to have left much record of their children’s lives or their interactions with them. That was not the case with Irving Fisher and his children. Fisher and Margaret had three children, eldest daughter Margaret Duo (1894-1919), named in honor of her mother, middle child Caroline (1897-1958), namesake of Margaret’s eldest sister and known as Carol, and youngest and only son Irving Norton Fisher. Carol is described as “the renegade of the family” and not having the best relationship with her father.<sup>62</sup> The most her brother writes about her in his reflection on their father is to detail the pain her eventual divorce caused their parents, especially their mother.<sup>63</sup>

Margaret Duo was, by all accounts, the closest of the three kids with their father. In a letter to Margie dated March 23, 1906, Fisher reported to his wife, “Margaret is a great comfort and is going to be a real ‘charmer’ one of these days.”<sup>64</sup> It is important to note that in

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<sup>60</sup> Fisher, *My Father*, 58.

<sup>61</sup> Allen, *Irving Fisher*, 60.

<sup>62</sup> Allen, *Irving Fisher*, 148.

<sup>63</sup> Fisher, *My Father*, 265.

<sup>64</sup> Fisher, *My Father*, 112.

1906 young Margaret Duo was twelve years old and accompanied her father back to New Haven, while the elder Margaret and the other two children stayed behind at the Battle Creek sanitarium so that Margie could recover from what her son described as “a minor operation” performed on her by Dr. Kellogg.<sup>65</sup> Perhaps Fisher took Margaret Duo with him because he felt that his wife already had her hands full taking care of Carol and Irving Norton while recovering, and Margaret being the eldest was the most capable of taking care of herself while Fisher went back to work teaching. It also though shows the closeness of the two’s relationship.

From a young age, Margaret Duo was her father’s faithful shadow. As a teenager, starting in 1913, Margaret Duo would work for her father out of his home office, and base of operation, at 460 Prospect in New Haven.<sup>66</sup> By 1917, she was 23 and still living at home, having made the decision not to go to college. By all accounts, Fisher was a loving, but difficult parent:

Although Fisher loved his children and expressed that love in many tangible ways, he did not always understand them nor they him. They could not understand his complete dedication to his work and to his crusades. He could not understand why his children did not accept his judgement in all cases and act on his recommendations without question since he knew that he was right and knew his recommendations were for their benefit.<sup>67</sup>

Of his three children, however, Margaret Duo was the most in lock step with her father. “My sister Margaret, as the eldest child, had absorbed his [Fisher’s] health philosophy more completely than either of his other offspring,” Irving Norton recalled in his book on their father.<sup>68</sup> America had entered the Great War by 1917, but Fisher was a vocal critic against

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<sup>65</sup> Fisher, *My Father*, 110.

<sup>66</sup> Allen, *Irving Fisher*, 136-137.

<sup>67</sup> Allen, *Irving Fisher*, 148.

<sup>68</sup> Fisher, *My Father*, 180.

the war from its beginning, long before America became directly involved in the conflict.<sup>69</sup> Fisher referred to the war in a letter, dated October 19, 1917, as “the Eugenic tragedy (killing off the cream of our manhood).”<sup>70</sup> The greatest tragedy of those years, however, would be the death of Margaret Duo. As Irving Fisher put it, “The war directly affected our household in a way which was especially hard for Father to accept.”<sup>71</sup> Margaret Duo got engaged in 1918 to a young man named George Stewart, who was being sent off to fight in France. Fisher approved of the marriage and even tried urging that the nuptials take place before Stewart’s deployment. Margaret Duo seemed hesitant though, as her brother recalled:

Margaret, on the other hand, seemed to require a period of adjustment to the idea of a specific marriage as distinct from marriage in the abstract before she was ready to take the plunge. She enjoyed to the full the flutter of excitement which the announcement of her engagement caused among her contemporaries, but the strain of her inner crisis added to the burden of her home front activities resulted in a complete nervous break-down.<sup>72</sup>

The nature of Margaret Duo’s mental illness is a matter of controversy. Modern psychiatry was still in its infancy at that time. Sociologist Andrew T. Scull, whose research focuses on the social history of medicine, psychiatry in particular, wrote about the treatment Margaret Duo underwent at the hands of Trenton State Hospital’s psychiatrist Henry Cotton, in his book, *Madhouse: A Tragic Tale of Megalomania and Modern Medicine* (2005). Scull dates Margaret Duo’s decline as happening before her family apparently realized it, “Margaret’s mental condition seems to have undergone a slow deterioration from about 1916 onwards.”<sup>73</sup> He found fault with Fisher and all his unrealistic expectations and experimental health treatments, such as those recommended by John Harvey Kellogg at the Battle Creek

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<sup>69</sup> Fisher, *My Father*, 163-164.

<sup>70</sup> Fisher, *My Father*, 177.

<sup>71</sup> Fisher, *My Father*, 180.

<sup>72</sup> Fisher, *My Father*, 181.

<sup>73</sup> Andrew Scull, *Madhouse: A Tragic Tale of Megalomania and Modern Medicine* (New Haven, CT: Yale University Press, 2005), 82.

Sanitarium.<sup>74</sup> Margaret Duo, according to him, was an unfortunate victim of “men of science” who knew little or nothing about how the human mind and body actually worked.

Scull reported that the changes in Margaret Duo were subtle at first and, “the onset of her symptoms insidious and easy to overlook or rationalize.”<sup>75</sup> Far from just a nervous breakdown, Scull gives evidence that what Margaret Duo may have suffered from was schizophrenia:

Her psychiatrists soon despaired of her prospects. Noting the “acute distortion of the patient’s personality with marked distortion in thinking, peculiar behavior and disharmony between mood and thought content,” they concluded that her psychosis “seems more nearly related to the schizophrenic disorders than to the exhaustive or mania depressive disorders.”<sup>76</sup>

Schizophrenia is a serious psychiatric diagnosis even still today. Unlike many other forms of psychopathology, it almost always requires the use of anti-psychotic medications to successfully treat, medications that did not exist in 1918. Nor did a real scientific understanding of schizophrenia exist. All that was known for certain about the disorder was it was deemed “incurable” and not something that people like Fisher and his family were supposed to suffer from. It would have been regarded as a scandal among those of their social class, which is likely why there is no mention of schizophrenia anywhere in either Irving Norton’s memoir or Allen’s biography.

Scull even points out that Fisher was so concerned with the social repercussions of his daughter’s mental illness that he tried at first to keep her out of any sort of psychiatric facility but was ultimately left no choice due to the severity of Margaret Duo’s condition.<sup>77</sup> Once the schizophrenia diagnosis was made, however, Fisher removed Margaret Duo from the

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<sup>74</sup> Ibidem.

<sup>75</sup> Ibidem.

<sup>76</sup> Scull, *Madhouse*, 83.

<sup>77</sup> Scull *Madhouse*, 82-83.

dedicated psychiatric facility she was originally placed at, the Bloomingdale Asylum in White Plains, and had her admitted instead as a private patient at Trenton State Hospital.<sup>78</sup> Undoubtedly Fisher did that seeking the best care possible for his daughter. The timing of the move, however, also suggests that he was trying to keep her actual ailment confidential and continue with the story that she was simply suffering a nervous breakdown from exhaustion.

It was at Trenton State Hospital that Margaret Duo would come to her untimely death. According to Scull, her death was the direct result of unproven, pseudo-scientific treatments inflicted on her by Cotton, treatments including the removal of teeth as well as surgical removal of internal organs such as the uterus and parts of the intestines, all thought to contain poison that caused insanity. Cotton was not alone in his medical beliefs. They were shared by men like Kellogg, who Fisher wholly trusted.<sup>79</sup> Fisher did hesitate in authorizing surgery on Margaret Duo's intestines. He did allow for Cotton to perform other "treatments" on her though. What ultimately killed her was pleurisy, which is inflammation of the tissues that line the lungs and chest cavity, according to both Allen and Irving Norton.<sup>80</sup> According to Scull, however, the crisis that killed Margaret Duo was likely a man-made one:

Perhaps the crisis was iatrogenic, the result of a failure to kill the streptococci before injecting them into Margaret's body. At all events, in late October she exhibited symptoms of inflammation of the lungs, and a deep-seated abscess developed over the ribs on her left side—an abscess that, when lanced and cultured "gave pure streptococcus...the same type found in the teeth and stomach"—and the organism used, though Cotton was silent on this issue, to create the so-called vaccine with which he had injected her.<sup>81</sup>

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<sup>78</sup> Scull, *Madhouse*, 83.

<sup>79</sup> *Ibidem*.

<sup>80</sup> Allen, *Fisher*, 159; Fisher, *My Father*, 181.

<sup>81</sup> Scull, *Madhouse*, 84-85.

None of this does Irving Norton or Allen write about in their accounts of Fisher's life. What Irving Norton does say about the death of his sister is that it came as a shock to Fisher as, "scarcely a week before her eighteen months' illness reached its fatal climax, Father wrote buoyantly that she seemed 'much improved.'"<sup>82</sup> All three authors, Irving Norton, Allen, and Scull agreed that Fisher felt some degree of guilt for Margaret's illness and death. He refused to admit though that it was the treatment, not the disease, that killed her. Scull put it frankly, "Of course, such sustained faith was a natural psychological defense mechanism in the face of the choices he had made and the treatments he had authorized, but is also reflected how stubbornly Fisher held to his beliefs, not just on this front, but on a whole range of issues."<sup>83</sup> Fisher's dogged belief in what he deemed "scientific" was stronger even than the reality of his dear daughter's death. And his belief in eugenics that a bloodline as pristine as his could not have possibly produced such "insanity," as he would have called it, as Margaret suffered remained intact too. Irving Norton wrote, "In retrospect he tried desperately to isolate and explain the underlying physical cause of her [Margaret's] death."<sup>84</sup> There had to have been some sort of unseen, unknown pathogen that infected his daughter and caused her death. He refused to accept mental illness as an answer.

After all, this was Irving Fisher, the man who for years had been preaching about the unfitness of the "feeble-minded" and "insane." His precious bloodline could not possibly have included such degenerate traits. For anyone who argues that Fisher did not consider himself superior, this evidence is offered up to the contrary, for it was his determination that he had one of the fit, one of the superior, that made him refuse to accept what he witnessed

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<sup>82</sup> Fisher, *My Father*, 181.

<sup>83</sup> Scull, *Madhouse*, 85.

<sup>84</sup> Fisher, *My Father*, 181.

with his own eyes.

Irving Fisher was a multi-faceted man. He was a jack of all trades, and yet still became the master of some. He was a devoted family man, a workaholic, a writer, a teacher, a political insider, a preacher, a reformer, a man who won and lost a vast fortune, and perhaps most important to him, a scientist in his own mind. Of course, he is primarily remembered as an economist, but it is time to reevaluate his legacy. For better or for worse, Fisher was one of the most vocal and active social reformers of his time. He deserves credit for that. He was not only a man of deep-seated beliefs, but one who acted on those beliefs. He put his money where his mouth was and yes, it would end up costing him dearly, but at least he was a man of not just words, but deeds. At least he did practice what he preached. There is something noble about a person so heavily invested in their beliefs. Fisher also needs to be held to account though for his part in making American eugenics what it was. He did not hide his views on eugenics, and it is a disservice to his memory to try and sweep his views and actions under the rug. Perhaps, as Allen argued, he did not really comprehend the things he was advocating for. In which case, there should be no reason to be ashamed of his good intentions, even if they did lead to awful things.

This author, however, feels that arguing Fisher did not really know what he was talking about is an insult to his intelligence and denying him the vast amount of agency he had and used. Fisher was vainglorious, self-righteous, and refused to admit when he was wrong, but he was not unintelligent. In fact, he possessed a degree of brilliance, which made him so haughty. Was he as smart as he gave himself credit for being? That is arguable. He certainly proved to be a false prophet, in virtually all his forecasts. His intellect though is without doubt or question. Fisher was only a man and therefore he was fallible, but while his

answers were wrong that does not mean he failed to recognize and understand that there were problems, problems he sought to solve. It is like a math problem where you are forced to show your work, in addition to your answer. You can see through Fisher's work that the steps were there, the process, the understanding. He just plugged in the wrong factors and it ended up causing him to fail. The steps are still important though, and regardless of the outcomes, Fisher's work as a social reformer needs to be recognized. As I have argued throughout this chapter, American eugenics would not have been the same without him.

## CHAPTER 5

### CONCLUSIONS

There is material in this dissertation for future studies to be done by historians of gender, especially focusing on concepts of masculinity, to research further how many renowned men of this time were influenced to either emulate or oppose their fathers. That is not a subject this dissertation seeks to delve deeper into, but as it has been a noticeable pattern in all four case studies and it does bear mentioning.

In a similar vein, this dissertation has been a gendered study in that all four figures examined were men. But women were an active part of the American eugenics movement, especially, and far more research needs to be done into that aspect of this history. A study similar to this one, perhaps starting with a closer look at some of the known women in Pearson's Men and Women's Club and then moving on to American figures such as Mary T. Watts and Margaret Sanger, would make for an excellent line of research.

One of the questions this dissertation sought to answer is whether eugenics was innately racist, which evaluating its basic principles starting from Galton, it was not in its creation. Tracing its development, however, showed how it became a tool of racism and white supremacy in its transatlantic journey from a British idea to an American pseudo-science. To build an impartial case though, this dissertation examined figures not immediately associated with white supremacy. Including Madison Grant would have been "stacking the deck" in favor of a predetermined outcome, instead of allowing the facts to guide the historical analysis. The same conclusion was reached though without including Grant that would have been guaranteed by including him, which only strengthens the argument being made. American eugenics, the recognized "name brand" of eugenics

exported throughout the world, was developed as an instrument of white supremacy, regardless of whether the original concept was or was not.

It cannot be forgotten, however, that there were black eugenicists, W.E.B. Du Bois being most prominent among them.<sup>1</sup> They were able to divorce the racism of the theory from the practice itself, seeing eugenics as a tool to target individuals whom they felt were holding their race back. This goes to further the argument that eugenics itself is not innately racist. The theory, even the practice apparently, can exist without racism being a necessary piece of either.

Historian Mark M. Smith wrote a commentary on Annie Cot's article, as well as an article from Thomas C. Leonard, and two other sources, one by economist Robert W. Dimand and the other by the research team of Sandra J. Peart and David M. Levy, all of which were published in the July 2005 issue of the *The American Journal of Economics and Sociology*.<sup>2</sup> He found that he had the most to say about Cot's and Leonard's articles, especially lingering questions left by contradicting statements by the two. Cot claimed that eugenics was a movement never really embraced by American academics, while Leonard declared that it was mainstream, "pervasive to the point of faddishness."<sup>3</sup> The findings of this dissertation agrees with Leonard. American eugenics was mainstream, in a general sense, and more precisely yes, it was a fad, especially in the 1920s.

Most importantly though, this dissertation approached eugenics in a unique manner. Instead of looking at it regionally or legally or thematically, all of which has been done

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<sup>1</sup> Thomas C. Leonard, *Illiberal Reformers: Race, Eugenics & American Economics in the Progressive Era* (Princeton, NJ: Princeton University Press, 2016), 122.

<sup>2</sup> Mark M. Smith, "Finding Deficiency: On Eugenics, Economics, and Certainty," *The American Journal of Economics and Sociology* 64, no. 3 (2005): 887-900, accessed February 20, 2021, <http://www.jstor.org/stable/3488164>.

<sup>3</sup> Thomas C. Leonard, "Protecting Family and Race: The Progressive Case for Regulating Women's Work," *The American Journal of Economics and Sociology* 64, no. 3 (2005): 759, accessed February 20, 2021, <http://www.jstor.org/stable/3488159>.

before, it is a biographical study. The story of eugenics gets told through the stories of Galton, Pearson, Davenport, and Fisher. The transatlantic connection made in this dissertation is original as well, but eugenics still needs to be placed in an even greater context, a global one. There is need for a study that connects the various eugenic programs across the world in the 1920s and possibly the best way to do it would be with further probing into the life of Charles B. Davenport. Of the four figures examined in this dissertation, Davenport begs for further attention and research. He left behind a treasure trove of primary sources, most of which have not been touched by historians. The author of this dissertation is calling for a full biography of Davenport to be written. His story told here is just the tip of the iceberg.

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