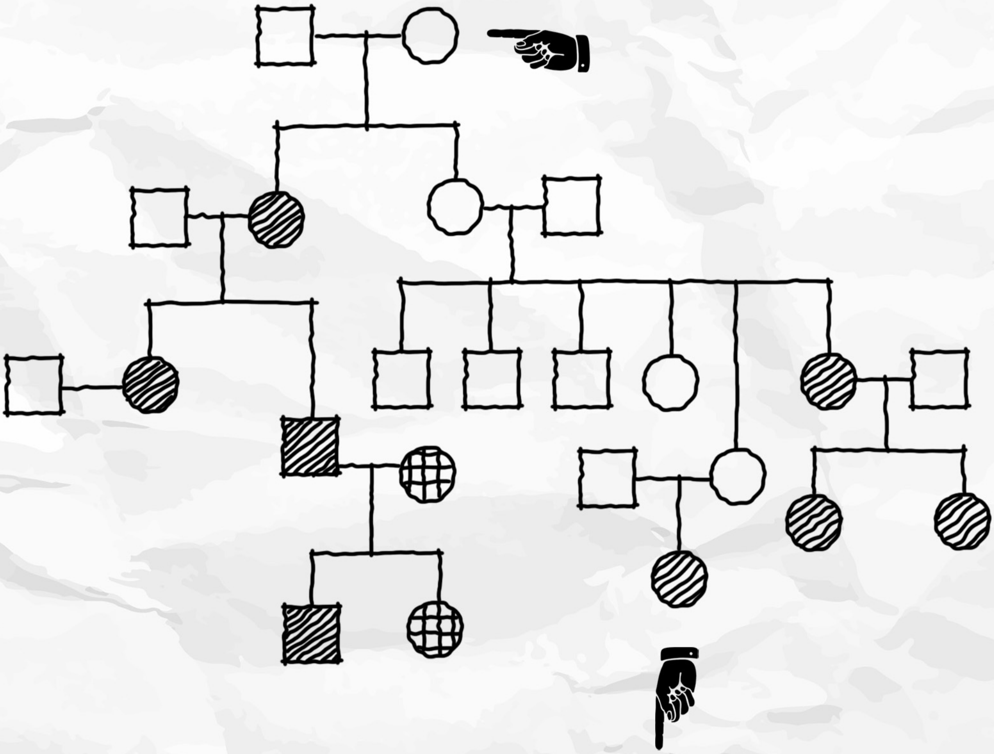
jake nabasny



paper weapons

A Historical Epistemology of American Eugenics

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Jake Nabasny

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To Sloane

for teaching me
what it means
to be a parent

Acknowledgements

Looking back at the book that follows almost feels like I am peeking into another person's life. That is how distant academia feels to me now. Nevertheless, two feelings sweep over me as I retrace that great adventure. First, the excitement of the research: feeling the colored punch cards in my hands, artifacts of the micro-techniques that I would analyze to counter the master narratives dominating the historiography of American eugenics. Second, the overwhelming sense of gratitude that persists in me for my colleagues and companions that made this work possible. This book would not have been possible without the efforts and support of countless others.

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And I know you said bad things of me last year.
—How could I do that when I wasn't born,
Answered the lamb; I am still at my mother's breast.
—If it wasn't you, then it was your brother.
—I haven't a brother.
—It was then someone close to you.[1]

"The Wolf and the Lamb"
Jean de La Fontaine

1

Introduction

Alice Smith was born in September 1884 in New Jersey. Her father, a Civil War veteran, and her mother were both over 50 years old and already had five other children. Two more would come after Alice. The Smiths were a family of little means. They lived in Newark's "Washerwoman's Alley," a poor and racially mixed neighborhood. Alice had little formal education, and received no training at home. Perhaps for this reason she was once enrolled in the New Jersey Training School for Feeble-minded Children. Nevertheless, she was expected to work at an early age. Her father would fly into fits of rage when his children did not bring home money, sometimes driving them out of the house and forcing them to seek refuge with the neighbors.

Alice did general housework for a local family. She was sometimes bothered with nocturnal seizures, but these did not interfere with her ability to work. Late one night when returning from work, a man followed Alice home. Dragging her into a dark, vacant lot, he raped her. She would have gone to the police, but she could not describe the man's appearance. As a result of the incident, she became pregnant and delivered her first and only child in 1901. After recovering from the birth in an almshouse, she returned to her father's home with her child. Shortly thereafter, agents from the Children's Guardians' Society removed the baby from the home and placed her with another family. The exact reason for the child's relocation is unknown, but such occurrences were not uncommon. At the time, many well-intentioned social agencies and their volunteers believed that impoverished families with several children could not bear the burden of another one and that it was better for everyone to relocate the child. Alice's child eventually died at 27 months in the care of this other family due to a bout of pneumonia.

After losing her child, Alice was taken under the custody of New Jersey State Board of Children's Guardians (NJSBCG) and placed in a Poor House. This custodial arrangement would not last long since Alice was almost an adult. Less than two weeks before her eighteenth birthday, however, the President of the NJSBCG petitioned for Alice's admission to the New Jersey State Village for Epileptics. Judge Alfred F. Skinner granted the order and before she was even eighteen, Alice was placed in the institution that would become her home for the next decade. Admission records note that Alice was always in great health despite her epilepsy.

Aware of her condition, Alice at first did not mind staying at the Village. She was encouraged to take up school again, but did not excel at the expected rate. Instead, she was employed in domestic labor, cleaning and taking care of children. Official records from the Village continually mention Alice's strong work ethic and cheerful demeanor. As time went on, her seizures became less and less frequent until, one day, they stopped completely. In the ten years that she spent on the Village, she only had a total of eight seizures, most of which occurred in the first half of her stay. As much as she was fond of tending to children, she grew impatient about her protracted stay. Alice missed her family and, now that she was cured, she wished to return home.

Alice would get her chance on May 31, 1912, when she was invited to provide testimony at a hearing of New Jersey's Board of Examiners of Feeble-minded (including Idiots, Imbeciles, and Morons), Epileptics, Criminals and other Defectives. First, she was interviewed by a Dr. Costill. Having been asked if she would like to leave, Alice states she would since she had not had a seizure in a long time and believed herself cured. Her plan, she tells the doctor, is to go back and live with her parents. Instead of focusing on Alice's health, Dr. Costill proceeds to repeatedly inquire about Alice's reproductive plans. He asks twice if Alice plans to have children. She says no. He then asks her twice why she does not want children, and she explains that she does not want them to have the same "disease" that she has. Although Alice did not believe it, Village staff had told her throughout her stay that her condition was hereditary and would be passed on to any of her future children. So close to finally being allowed to leave and rejoin her family, Alice acquiesces to the doctor's opinion.

Dr. Costill is suspicious of Alice's acquiescence. He knows that she mentioned previously that she did not think her children would have epilepsy. When he rhetorically corners Alice about this fact, she can only respond with, "I don't remember." He concludes his interview by twice asking Alice how she plans to prevent pregnancies in the future. Solely focused on returning to her family, she says that she would just stay home with her parents. When Dr. Costill brings up the first pregnancy that resulted from rape, she assures him that that will not happen again. Near the close of the meeting, her legal counsel, Azariah M. Beekman, asks Alice a single question twice in a row. This question is the only recorded statement from Beekman. He asks if she would consent to an operation that would prevent her from having children so that she would not pass on her disease. Desperate to rejoin her family, Alice consented. The Board then unanimously decided that Alice must be sterilized by a surgical procedure known as salpingectomy.

The Board's decision concurred with that of Village lead physician Dr. D. F. Weeks. In his report on Alice, he wrote that her epilepsy was the product of "bad heredity" and "a brain from birth defective and abnormal." Despite the fact that she no longer had symptoms and was a competent worker, Weeks attributed her epilepsy to "feeble-mindedness," a catch-all term for hereditary mental disability and other conditions. In the absence of symptoms, Weeks argued that epilepsy manifested in Alice's "moods and emotions." In his eyes, Alice's epilepsy was not cured, but rather in remission, and no one, not even an expert epileptologist, could determine when it would return. Thus, no matter how much Alice's individual health improved, there would always exist the *potential* for regression.[2]

Alice's suspected "feeble-mindedness" designated her a "social danger," in the words of Weeks. He warned:

> To discharge such a case as this one as cured, and allow her to return to her usual walks in life, would be a crime against society. To withdraw each and every person who has at any time displayed epileptic tendencies, in any degree whatever, from the community, is the only rational course left open. It would be indeed most

> wasteful to the nation and State to allow this defective to wander about, as it would entail perpetuation of her kind, and other evils due to this lack of proper care and segregation.[3]

As Weeks points out, hypersexuality was yet another presumed symptom of Alice's "feeble-mindedness." All of her actions are reinterpreted through this diagnostic lens. For example, Weeks dismisses Alice's rape confession because she was not intelligent enough to "possess the normal aversions of a white girl to a colored man, who was perhaps nice to her."[4] (He insists that the rapist was black, even though Alice cannot recall what race the man was.) Weeks' warning demonstrates the eugenic anxieties common to the early twentieth century. Alice's supposed hypersexuality and inability to know how to act morally would lead, experts feared, to the propagation of the so-called "unfit," e.g., those with hereditary diseases or of mixed race. Alice's story is a model example of how concerns about race, class, gender, and disability fueled these eugenic anxieties.

Alice's case is a paradigm in more ways than one. She was the first person in New Jersey ordered to be sterilized. A state law passed in 1911 allowed for such action. An array of experts including physicians, academics, and lawyers eagerly wished to test the constitutionality of the law. Alice was to be their model test case. Fortunately for her, the New Jersey Supreme Court declared the law unconstitutional in a 1913 ruling, *Smith v. Board of Examiners*. No state-directed sterilizations would ever be performed in New Jersey. Unfortunately for other Americans, successful sterilization laws in other states and a 1927 United States Supreme Court case declaring compulsory sterilization constitutional (*Buck v. Bell*) allowed for over 60,000 eugenic sterilizations to be performed. Sterilization, however, was not the only therapeutic technique for the various social ills that medical professionals and volunteer activists alike wished to cure. Hundreds of thousands of others were institutionalized, incarcerated, or deported.

As much as Alice's story is a paradigm for understanding the eugenic anxieties of the past, it was also a model for eugenicists during her time. Alice's file was one of the most complete studies of a hereditary trait with respect to an individual and their family. Physicians, psychologists, and social workers treated it as a kind of diagnostic blueprint and attempted to emulate it. This book tells the story behind Alice's story. It addresses the diagnostic and therapeutic technologies and practices developed to identify, evaluate, and intervene in the lives of the "unfit." In its articulation and practice, the "unfit" designated a potentialty for disease or deviance without necessarily corresponding to any actual trait. Reaching beyond the ivory tower, these technologies were employed and innovated in fields as diverse as medicine, psychology, agriculture, literature, and other popular media. They were used to assess the healthy and the sick, the normal and the abnormal. This analysis of the disparate concepts, theories, and practices of early twentieth-century eugenics reveals the motivations driving the professionals and activists that sought to cure society, as well as the legacy of those motivations today.

Building on Disability Studies, science studies, and literary modernism, this interdisciplinary study examines the technical and social processes of normalization developed and promoted by eugenicists. Eugenicists, medical professionals, academics, philanthropists, and activists portrayed themselves as forces of light and normalcy against the abnormal, diseased, delinquent, and undesirable. They considered these classes of people as evolutionary throwbacks, dysgenic incubators of disease, and a scourge on the nation's economic well-being. Their euphemistic and metaphorical language was intentionally designed to cast the net of abnormality as wide as possible.[5] This political strategy has often obscured the true target of eugenic diagnosis and intervention, thus creating difficulties for historians of eugenics.[6]

A study of the procedures, techniques, concepts, and practices developed by eugenicists, I argue, is the best guide for understanding the logic and functional parameters of eugenics. By analyzing eugenics in this way, one is better able to understand not only its ableism, but also its various other relations of power that functioned *simultaneously* in order to distinguish the healthy from the diseased, the fit from the unfit, the independent from the dependent, and the worthwhile from the worthless. This book is a history of those techniques and their role in the social process of normalization brought about by various sectors of the American Eugenics Movement and those directly or indirectly influenced by it. In today's genomic age more than ever, this history is crucial for understanding the origins and implications of American attitudes toward health, reproduction, and disability.

Philosophical Origins of Eugenics

The term "eugenics" was coined in 1883 by Francis Galton.[7] Deriving from the Greek roots *eu* and *genes,* the word literally means well-born. He adopted it to define the study of human heredity, specifically with regard to improving the innate quality of future generations. Yet eugenics, in the most basic sense of "better breeding," has been around for millennia. What seemed like a spark of insight to turn-of-the-twentieth-century natural scientists when they began to transpose the laws of heredity from pea pods to animals was already common knowledge to generations of farmers and breeders. One even finds the suggestion that these practices can be applied to humankind in ancient texts.

In *The Republic* (c. 380 BCE), Plato's Socrates argues that the perfect society will require so-called "erotic necessities" in which procreation is carefully controlled by an elite class: "the best men must have sex with the best women as frequently as possible, while the opposite is true of the most inferior men and women, and, [...] if our herd is to be of the highest possible quality, the former's offspring must be reared but not the latter's" (459e).[8] Ideally, the fetuses conceived by inferior citizens will not "see the light of day" (461c), but if they do come to term, infanticide is required. Socrates and Glaucon agree that this plan will produce the best citizens because it has worked with animals. This analogy has prompted one scholar to attribute to Plato a "crude stock-breeder's attitude" with regard to human reproduction.[9]

Rulers would have the power to distinguish superior men and women from inferior ones, but they would justify their decision to the populace with a "noble lie." The lie, known as the "myth of the metals," stated that every person was born with some kind of metal inside of them that would determine their station in life: gold for rulers, silver for auxiliary guardians, and brass for producers. Each person would only be able to reproduce with a member of the same class. The miscegenation of the classes would be catastrophic for the Republic, according to Plato. There is clearly a racial significance to this line of thought that gets underscored in the modern period.

Both English eugenicists and Nazi propagandists utilized Plato's arguments.[10] More importantly, however, the "metal" was the first articulation of a long philosophical preoccupation with the essence of humankind.

Plato's "metal," the essential quality determining the social worth of a person, was repeatedly reconceptualized throughout the history of philosophy. A critical turning-point occurs in the nineteenth century when the "metal" is given scientific value through historization, quantification, and materialization. This transition can be located in three major figures of the period. In 1871, Charles Darwin extends his theory of evolution from animals and plants to humankind. Physical and mental qualities are peculiar to certain species or "races." These qualities, he argued, are not innate or the result of spontaneous mutation, but passed down through the generations and subject to change. In his first major work, *Hereditary Genius*, Galton, Darwin's cousin, attempted to demonstrate, through his new scientific methodology called "anthropometry," that mental characteristics are inherited in the same way that physical ones are. He claimed that mental traits could be quantified much like height and thus standardized across all humankind to determine different classes of intellectual ability. Finally, in 1892, August Weismann discovered the human "germ plasm," which he believed was the material locus of all hereditary qualities and what was ultimately responsible for the transmission of those qualities. Thus, by the close of the nineteenth century, human essence was no longer thought to be eternal, infinite, and immutable, like the Platonic soul, but rather historical, quantifiable, and material. These changes established the framework from which eugenics emerged.

Eugenic Techniques

The turn of the twentieth century was a period of intense enthusiasm about science and technology. The Industrial Revolution empowered Americans to build more, move faster, and, for a privileged few, live more comfortably than ever before. Black smoke blotted out blue skies in an anthropotechnological Ascension that challenged the authority of divine forces. This new power that humanity had acquired over nature was paralleled in the natural sciences by a new theory of evolution. The matrix of biological thought exemplified by Darwin, Galton, and Weismann prompted scientists in a range of disciplines to argue that human life itself could be engineered. In the same way that mechanics could harness the power of steam to move a locomotive, scientists believed that they could utilize various techniques to harness the evolutionary force of natural selection in order to breed a better human race. In this era, technology and its accompanying instrumental rationality were put to the task of engineering humankind.

In the first decade of the century, Galton, by now an octogenarian, reflected on the purpose, justification, and orientation of eugenics as a science. His *Essays in Eugenics* (1909) is a published collection of papers, originally written between 1901 and 1908, that addressed these topics and constituted one of his last statements on the field of study that he founded. Contrary to certain readings of this text, Galton stresses the social value and practical purpose of eugenics over its scientific aspirations.[11] He unequivocally states in the first essay that the improvement of the human race must be treated as a practical problem. The preface prefigures this preoccupation by stating that eugenic social reforms rely on a change in Popular Opinion. Influencing public opinion and putting eugenics into practice go hand-in-hand for Galton: "The enlightenment of individuals is a necessary preamble to practical Eugenics."[12] Eugenics is thus established as a force for social change, rather than simply a politically-benign scientific search for truth. Moreover, as a force for social change, it is not a single technique that can be applied in any situation by any person, but a multiplicity of techniques that constitute and operate on subjects.

The majority of *Essays in Eugenics* consists of plans and ideas of techniques for achieving eugenic ends. The most innocuous are centered around cultivating an "enthusiasm" for eugenics: granting diplomas to those of the "best stock," creating a central office for issuing "Eugenic certificates," offering houses with low rents to "promising young couples," and establishing a fund for "worthy" marriages that are just getting started. More invasive techniques focus on controlling the makeup of the active population: determining the exact monetary value of a child at birth, collecting personal and family histories from university students (female students to be specifically tested for fertility), instructing citizens on the exact wording to use in their wills if they wish to donate to Eugenic Study, adopting children of high eugenic value and showcasing them in one's home as "fine specimens of humanity" (which would be a "point of honor"), and organizing extensive biographical indexes on families of all sorts. In one scheme that is presented with chilling conviction, Galton advocates buying foreign children and raising them as Englishmen.[13] Although many of his suggestions for eugenic reforms were voluntary, this plan is obviously more coercive. By economizing the brain power of non-English nations, Galton's plan evokes the commodification of foreign labor power by the transatlantic slave trade. Although often putting on an air of modesty in relation to what eugenics can know, Galton at one point recommends even more extreme measures, such as segregating and surveilling "habitual criminals" in order to prevent their procreation.

From its very beginning, eugenics is concerned with influencing public opinion and changing social policy. In this way, it is not strictly "science," but also social discourse; not solely ideology, but also a set of techniques of power. Therefore, it is most useful to describe eugenics as a "discourse" in the sense that Michel Foucault gave this term, rather than as science or ideology. Discourses, according to Foucault, are more than just groups of words, symbols, and formulae, but are also "practices that systematically form the objects of which they speak."[14] In other words, a discursive expression does not need to use linguistic elements alone. Events that are social, economic, technical, or political in nature can be considered part of a particular discourse. For example, early twentieth-century birth control practices informed and were informed by notions of public hygiene, race improvement, and female empowerment. The mutual influence between these ways of doing and speaking constituted part of the discourse on reproduction during that period. Eugenics, as it was originally conceived by Galton and later taken up in the United States, was a multiplicity of theoretical concepts, strategic practices, and diagnostic and therapeutic techniques specifically designed to effect social and political change. In light of this definition, I use "eugenic discourse" to mean the heterogeneous web of isomorphic practices, technologies, institutions, and theories in pursuit of humankind's biological improvement.

In the same way that Plato's philosophical discourse relied on a biological conception of the individual that had scientific, political, and ethical implications, eugenic techniques discursively joined a scientific conception of human heredity to a concrete political program. Reflecting on his attempt to analyze the history of Western thought, Foucault noted that "there is thought in philosophy, but also in a novel, in jurisprudence, in law, in an administrative system, in a prison."[15] This point is especially true of eugenic thought, which manifested itself in numerous quantitative technologies, experimental methodologies, socio-cultural attitudes, political reforms, and literary innovations. Starting from philosophy and natural science, eugenics expanded well beyond the scholastic domain into county fairs, architecture, novels, magazines, and cinema. For this reason, it is necessary to think about eugenics' heritage beyond its eventual formation into contemporary genetics and to consider how it has also affected popular discourse about self-identity, race, reproduction, and disability. The best approach to studying the multi-valency of eugenic discourse is historical epistemology, which cohesively analyzes the relations between science, technology, and power.

Historical Epistemology

The multi-disciplinary nature of eugenics calls for an inter-disciplinary form of analysis. One of the most influential of such methods was developed in the mid-twentieth century by French historian Georges Canguilhem.[16] He referred to his particular style of writing the history of science as an "epistemological history" or "historical epistemology." Epistemology, or the study of knowledge, typically investigates the conditions for knowledge, how truth differs from subjective belief, and the nature and structure of thought more generally. In other words, it often concerns what takes place inside one's head, rather than elements of the external world, such as life and action. By invoking this term, many commentators have confused Canguilhem's historiography with a genealogy of "disembodied concepts," i.e., scientific ideas that may have no purchase on reality.[17] A close reading of his own formulation of his methodology, however, reveals that Canguilhem's approach is highly attentive to the intersections of science, technology, and power. For this reason, historical epistemology is the best approach to analyzing the disparate components of eugenic discourse.

According to Canguilhem, cultural needs and values often influence the identification of scientifically-relevant problems:

> Biometry and psychometry can be constituted by Quetelet, Galton, Catell, and Binet only starting from the moment when non-scientific practices have presented for observation a homogeneous matter susceptible to mathematical processing. Human height, Quetelet's object of study, supposes the institutions of the national armies and conscription as well as the interest granted to criteria of reform. Intellectual aptitude, Binet's object of study, supposes the institution of obligatory primary education and the interest granted to criteria of feeble-mindedness (*arriération*). Thus, the history of the sciences, insofar as it applies itself to the object defined above [i.e., a science's actual development], is related not only to a group of sciences without intrinsic cohesion, but also to non-science, ideology, and political and social practice.[18]

These examples point to the social and cultural pressures placed on the work of science. Canguilhem also says that the inventions of Quetelet, Mendel, and Binet-Simon (incidentally, all three of which were crucial precursors for eugenics) attempted to provide "answers to questions that they posed in a language that they had shaped."[19] In this way, the history of the sciences must account not only for the solutions and discoveries of great scientists, but also the non-scientific motivations that prompted the underlying questions in the first place. Only then can we contemporaries begin to appreciate the structure and orientation of human knowledge from the past.

What, then, should be the focus of the history of the sciences? Is it the problem posed, the designated method, the discovery itself, the scientists themselves, or the motivating cultural values? In an as-yet-untranslated conference paper from 1966, Canguilhem addresses the object (*l'objet*) of the history of the sciences. Here one finds the most clear and concise explication of his methodology.

He begins by mapping out the unique domain of the history of the sciences. Insofar as the fundamental task of the sciences is to discover truth, historians of science during this period took their object to be the biographies of famous scientists and the chronology of their discoveries. To narrate this history in terms of the gradual expansion of human knowledge, however, negates the murky and often wayward trajectory of actual scientific research. Moreover, it obscures two basic features of the sciences: non-linearity and disunity. They are non-linear because the history of the sciences follows an evolutionary path just like science does. For example, major discoveries later become embarrassing errors, unknown figures are celebrated decades after their deaths as pioneers in new fields, and entire paradigms of thought sometimes, though rarely, shift. From a synchronic perspective, the sciences cannot be united into a shared project because their assumptions can differ radically, even in the use of homonymic concepts such as "reflex."[20]

One might object that this view of science undercuts the legitimacy of its research. Does it not make the "truth" attained by the sciences relative and any progress illusory? Canguilhem answers in the negative. "The history of the sciences does not destroy scientific progress," he writes. "It places into perspective the overcome stages in which the truth of today would be the vanishing point."[21] Not only does that history give credence to science's "provisional point of culmination," but it also establishes its social reality. In a later article on "The Role of Epistemology in Contemporary History of Science," Canguilhem underscores the social aspect of scientific truth:

> Truth is simply what science speaks. How, then, do we recognize that a statement is scientific? By the fact that scientific truth never springs fully blown from the head of its creator. A science is a discourse governed by critical correction. If this discourse has a history whose course the historian believes he can reconstruct, it is because it *is* a history whose meaning the epistemologist must reactivate.[22]

The epistemologist, in this sense, preserves the truth of contemporary science not by making it monolithic, but by *reactivating* its history of accidents, obstacles, interruptions, and crises, all of which take place within a discursive community of researchers investigating and espousing competing theories. Thus, the object of the history of the sciences is not scientists and their discoveries, but the historical development of science's search for truth, which includes the social, economic, political, and technical factors driving (and delaying) scientific progress. This means retracing the actual development of scientific discovery, including its mishaps and failures, to understand how the scientists, and society more broadly, formulated specific questions as scientific problems.

Nevertheless, the scientific mind does not pose problems to itself in isolation. Technological progress enables the discovery of new "epistemic things" that can then be subjected to qualitative and quantitative analysis.[23] The inventions of great scientists hinted at above were of this order: statistical analysis (Quetelet), Mendelian analysis, and intelligence testing (Binet). Each new scientific technique revealed the existence of something previously unknown (average man, hereditary traits, and intellectual aptitude). These new things, although not observable by the naked eye, became objects for thought, or epistemic things. Such discoveries propelled their respective sciences by generating a multiplicity of new questions and directions for research. A history of science, then, would have to account for a myriad of objects that contribute to scientific discovery, such as documents, instruments, methods, concepts, and more.[24] In other words, the theoretical and the technical are merged in scientific practice. Technology is an essential component of the creation of scientific problems and must be attended to by the historian as much as any cultural influences.

All scientific discovery is driven, in part, by what can be done (determined by technology) and what should be done (determined by culture). This arrangement is especially evident in the case of eugenics, whose existence as a social movement coincided with its formation as a scientific discipline. In this book, I critically analyze the diagnostic and therapeutic techniques of American eugenics in order to understand their place in the broader social movement. New technologies for the analysis and control of heredity, crime, and reproduction spurred the development and widespread approval of eugenic science. Historical epistemology helps elucidate the often-obscured social dimensions of this marriage between science and technology. Although many scholars have portrayed this methodology as lacking any analysis of power, including Canguilhem's most famous student, recent scholars of disability have taken it up to criticize the power dynamics of various life sciences, including eugenics.[25]

Norming the Non-Standard

The industrial revolution of the late nineteenth century brought on an era of innovation. Technological developments occurred not only in mechanics, as familiar pictures of railroads and factories attest, but in many other domains as well, including medicine. Canguilhem traces some of them in his history of modern physiology, *The Normal and the Pathological.* He shows that around the eighteenth and nineteenth centuries, new instruments were designed to quantify biological processes. By measuring bodily processes and comparing them between individuals, physiologists, biologists, and later physicians established quantitative criteria for defining the "normal" functioning of the human body. Thus, in its medical origins, the "normal" body was a crude statistical average. Qualities outside of this quantitative average were deemed pathological, or abnormal, and thus seen as in need of treatment.

This conception of normality and pathology is substantially different from previous ones, notably that of ancient Greek medicine. According to Canguilhem, ancient Greeks believed that disease and health were coextensive and that vital problems arose when these those forces were imbalanced. In the modern period, new medical requirements are established that call for diagnosing and curing patients in order to protect life.[26] A polemic, unknown to the ancient Greeks, emerged between disease and health in which disease (construed as any abnormal condition) was inherently undesirable.[27] Thus, the true driving force behind the science of pathology, Canguilhem argues, was the technical and therapeutic elimination of disease, rather than the rational search for knowledge. Instead of elucidating the qualitative distinction between normal and pathological states, the reduction of the two to a homogeneous, quantitative continuum sidestepped the entire issue of distinguishing between them and allowed for the practical expansion of therapeutic sciences.[28]

This history and its ramifications are made abundantly clear in an example from Canguilhem's days as a practicing physician. One day, a farmhand's tibias were fractured by a cart wheel. His master decided to not send the man to the hospital for whatever reason. Eventually, the fractures healed on their own, but, in doing so, the tibias were irregularly fused together at an obtuse angle. Apparently, the man was still able to work and enjoy life, but walked with an unusual gait. Later, after complaints from neighbors, the farmhand was forced to the hospital to undergo a corrective surgery. The hospital physician, agreeing with the neighborhood gossip, diagnosed the problem and broke and reset the man's tibias. Canguilhem concludes that the physician had "another image of the human leg" than the farmhand, who was able to continue his life as it was without surgical intervention.[29] The presumed necessity of such intervention was governed by a social norm (i.e. the expectation of a "normal" gait), rather than a vital norm (i.e. the ability to maintain one's life).

To put this point another way, the contrived distinction between the normal and the pathological is put into practice to distinguish the abled from the disabled. Long before Disability Studies scholars criticized the "medical model" of disability, in which physiological or cognitive anomalies are deemed pathological and in need of treatment, Canguilhem implored physicians to recognize the extent to which disability is socially constructed:

> The sick man maintains that he is not in any *obvious* sense disabled. This notion of *disability* should be studied by a medical expert who would not see in the organism merely a machine whose output must be calculated, an expert who is enough of a psychologist to appreciate lesions as deteriorations more than as percentages.[30]

The sick man, in this passage, establishes a difference between impairment and "disability." While his gait has been impaired, he does not identify as disabled. Canguilhem goes on to argue that while the former is a fact, the latter is a value judgment applied by the medical expert based on quantitative measurements and social norms. The medical model of modern physiology was made possible precisely by the technological innovations that aimed to quantify, evaluate, and normalize bodily functions. Thus, with the foundational analytical tools of scientists like Quetelet, Mendel, and Binet, essential qualities of humanity such as heredity and intelligence could be measured, classified, and evaluated. This new perspective on the body laid the groundwork for early twentieth-century techniques pioneered by eugenicists to study heredity.

About two decades ago, scholars of disability, inspired by Canguilhem, began to link the construction of normalcy to the eugenics movements of the early twentieth-century.[31] Lennard J. Davis located the basic aim of eugenics – "to norm the nonstandard" – in the statistical methodology of Quetelet, which was later elaborated by Galton.[32] According to Davis, modern physiology constructed a conception of normalcy that went beyond identifying pathological structures and disabilities. It also sought to establish norms for certain forms of degeneration or deviancy according to race, gender, nationality, dispositions toward asocial behavior, and so on. Sharon L. Snyder and David T. Mitchell, noting their agreement with Canguilhem's history of pathological science, extend its normalizing function to the domain of eugenics. Eugenics, they argue, develops pathology by examining the transmission of disease between generations.[33] Unlike Davis, however, they contend that the original ableism of physiology is the fundamental lens through which all other forms of oppression are articulated.

In contrast to Snyder and Mitchell, I agree with Davis and more recent scholarship that seeks to understand eugenics through an intersectional lens.[34] Although the rhetoric of eugenics was vague, its application was precise. Diagnostic and therapeutic techniques were specifically designed to measure, evaluate, classify, and treat not only the diseased or disabled body, but also non-white, immigrant, female, intersex, and young bodies. Eugenics inscribed these relations of power in a hereditarian matrix. While this move was not new in itself, the specific theory of heredity developed by American eugenicists emphasized, in their diagnostic gaze and therapeutic regime, potential, rather than actual, qualities. This seemingly insignificant shift completely altered how elites acquired and exercised social control. The social enemy was no longer visible and external to the dominant social order, but potentially lurking within it, undetected. In this way, everybody became a potential target for the technical and social processes of normalization, which culminated in an unprecedented expansion of social control.

Overview

Throughout the following four chapters, I assess historical and literary scholarship on the American Eugenics Movement as well as related figures, texts, and events. The core argument that strings together these assessments is the following: Technological and scientific innovations at the turn of the twentieth century provoked a new, specifically eugenic, understanding of the body, reproduction, and health. Diagnostic and therapeutic techniques in particular acquired an inflated biological, social, and political value. They were widely popularized and utilized to protect the nation, bolster the economy, improve individual health, and encourge self-regulation. The assumptions underlying these techniques solidified into cultural facts and ways of seeing. Outside the botanist's laboratory, eugenic strategies were used to diagnosis and treat (often through forced separation or surgical mutilation) anyone deemed "unfit" in spaces as diverse as prisons, hospitals, schools, almshouses, state fairs, and private residences. These techniques were able to function in so many different places on so many different types of people largely because they identified and evaluated *potential* rather than *actual* qualities. Eugenic methods of diagnosis and treatment continue to be practiced up until today, not in their original forms, but in the social understanding and political decision-making applied to issues of health, reproduction, and identity.

By focusing on potential qualities, eugenicists expanded their area of research to include all people regardless of race, class, gender, nationality, or disability. It was believed necessary to study, quantify, and stratify normal bodies just as much as abnormal ones. Nevertheless, eugenics was infamous for its discrimination against minorities. Those most similar to the eugenicists (white, middle class, male, heterosexual, and able-bodied) were rarely victims of compulsory sterilization or segregation. At the same time, one cannot simply dismiss this phenomenon as a clear-cut case of personal bias since it was conditioned by the epistemological and political values of society more broadly. Eugenicists commanded political authority with popular approval from the white middle class as well as segments of minority populations. On the eve of the millennium, during an age of scientific discovery and booming industry, eugenic discourse was as appealing as it was probable, even to those whom it deemed inferior. For example, Harry H. Laughlin, the most prominent American eugenicist, refused to have children because he had epilepsy and did not wish to pass it down to the next generation. Thus, identifying and managing an individual's potential rather than actual qualities allowed eugenicists to monitor the entire nation without scapegoating a single group. Concomitantly, eugenicists were acutely aware of social differences and sought a scientific basis for white supremacy, ableism, and heteronormativity. This strategy constitutes what I call the *insidiousness* of eugenic discourse, which was vital to the continuation of eugenic programs after the Second World War. To take account of the long history of eugenic discourse, I investigate how eugenicists transformed social identities and distinctions into a hereditarian vocabulary of defect, disease, and delinquency.

The chapters are organized in two parts. The first part addresses the diagnostic methodologies developed in the early twentieth century, particularly pedigree analysis and characterology. This part examines the new technologies created for measuring and evaluating the hereditary hygiene and social worth of individuals. These technologies mark a noticeable discontinuity from nineteenth century techniques and instruments, specifically those used to identify racial, gender, national, and class identities as well as disability status. By focusing on the tools of eugenic diagnosis, one is able to see how scientific and medical conceptions of social identity changed at the turn of the century. The second part explores two major therapeutic techniques championed by eugenicists: selective breeding and clinical practice. This part investigates popular campaigns and representations of reproduction that were directly or indirectly inspired by eugenic discourse. The goal of such initiatives was to cure, rather than to identify. In contrast to the first part, part two seeks to establish some of the continuities of eugenic discourse from 1910 to the end of the century.

Chapter 1 draws on the manuals, bulletins, guidelines, and key theoretical works of American eugenicists to situate the advent of a new, eugenic conception of the body within the first two decades of the twentieth century. Drawing on Francis Galton, Charles

Darwin, and August Weismann, American scientists located the essence of the body in its historical and material composition. I argue that their quantitative and diagnostic tools, especially pedigree analysis, were used to assess not only the *actual* but also the *potential* qualities of bodies. This expansion requires the reconsideration of two important historiographic tenets in dominant histories of eugenics. First, contrary to the near-universal opinion that American eugenicists adopted a Mendelian view of heredity, pedigree analysis implies a "recticular" rather than "linear" model of heredity. The "recticular" model extended the influence of heredity beyond one's immediate family, thus further insinuating the power of hereditary potential and social control. The difference was crucial for eugenicists because it supported their alarmist declarations that "dysgenic" (i.e. poorly bred) elements were more widespread in the population than previously believed and justified the expansion of their diagnostic and therapeutic domain from so-called abnormal bodies to everybody. Second, eugenics is commonly represented in terms of its racial aspects, a view that narrowly reduces the international movement of eugenics to its most well-known form, Nazi racial eugenics. American eugenics, however, stressed the univocity of social identities such as race, gender, class, and disability status. These different phenotypical qualities were homogenized on the quantitative plane of heredity. Pedigree analysis and other paper-based diagnostic techniques attempted to establish the social worth of a body in terms of its hereditary potential to spread defect, disease, and delinquency, an analysis that intermingled social distinctions on a genetic level. This diagnostic technique ushered in a new forms of power, social control, and biopolitical participation that used paper tools to (self-)identify and ultimately prevent perceived social ills.

Chapter 2 focuses in on a couple diagnostic techniques for measuring and classifying a eugenic notion of "character." I contrast nineteenth century conceptions of racial identity with this new conception of character, which can be defined as the unitary manifestation of an individual's physical, mental, and temperamental qualities, both actual and potential, circumscribed by and inflected with the hereditary context of one's family, race, and nation. The development of eugenic character underscores the discontinuity and innovation of eugenic diagnostic methodology.

At the turn of the century, character was at the center of an interdisciplinary debate concerning how to identify the race, gender, economic class, ability, and social worth of an individual based on their physical, mental, and temperamental traits. Key figures in psychology, literature, and popular culture developed diagnostic tools for assessing the "character" of a person or group. As a diagnostic category, character served the dual purpose of both classifying individuals by trait or group identity (e.g. promiscuous, Irish, "mentally defective") and mapping out the distinctive (hereditary) traits of a group. Methods of assessing character ranged from recording an individual's traits and comparing them with others (i.e. Galton's anthropometry) to, in the case of the psychologically-trained author Gertrude Stein, composing literary portraits that evoked the mental character of a subject. Automatic writing (a process said to display an individual's inner, unconscious, or primary self), in particular, crossed scientific and literary boundaries when it coalesced into a favorite technique of modernist writers, bringing the prejudices of the time with it. This conception of character allowed scientists and literary authors to draw a necessary link between the individual and the group (conceived as family, class, race, and/or nation) based on the reproductive potential of characterological traits.

Building on the end of the previous chapter, Chapter 3 examines the eugenic conception of reproduction as it was expressed by modernist women writers. Like many cultural domains, the indelible stamp of eugenics marked early twentieth-century literature, especially given its modernist penchant for science and novelty. Even authors who bore no direct relationship to the American Eugenics Movement sometimes promoted eugenic principles. This chapter presents a cross-section of three feminist authors (Charlotte Perkins Gilman, Gertrude Stein, and H.D.) that integrated eugenics into their literary works in varying degrees. Their works distinguished between individuals who were "fit" to breed and those who were not, which was, for these authors, determined by race, class, and disability. Their depiction of a dysgenic underclass was informed by and reinforced popular support for negative eugenic measures, such as compulsory sterilization, as well as emblematizing a uniquely modernist conception of the body. Their work also demonstrates a deeper continuity in eugenic discourse than scholars have traditionally thought. Contrary to the common belief that family planning replaced individual-based therapeutics in the 1930s, these pre-1930s literary works showcase the eugenic belief that the hereditary makeup of the family could be modified through the individual. The popularity of the eugenic conception of reproduction sets the stage for the emergence of voluntary clinics in which average people would receive eugenically-oriented reproductive advice.

By the mid-twentieth century, eugenicists attempted to cash in on public interest in eugenics. Chapter 4 explores the transition away from field work toward clinical practice as the primary means of popularizing eugenic discourse. This transition was motivated by eugenicists' long-held belief that the best method of eugenic improvement was self-regulation, not state intervention, a fact that challenges most contemporary understandings of eugenics. Early twentieth-century psychological, psychiatric, and birth control clinics elicited a willing public to eugenically improve the race and the nation through selective breeding practices. These clinics were the inspiration for the first planned "Clinic of Human Heredity," devised by Harry H. Laughlin. This chapter traces the development of eugenically-oriented clinical practice in the United States from its origins to its application by eugenicists and geneticists up until the current day. Based on first-hand archival research, I demonstrate that Laughlin's planned clinic was the blueprint for the first "genetics" clinics in the 1940s, which explicitly aimed to continue the mission of the Eugenics Record Office, i.e., limiting the reproduction of the "unfit." These later clinics formed the basis for twenty-first century practices, directly inherited from eugenic techniques, such as genetic counseling and genetic ancestry testing. Aside from the institutional and technical continuity from eugenics to medical genetics, clinics were a space for medical professionals and activists to directly inform average citizens about their hereditary potential and eugenic responsibilities. I maintain that this kind of eugenic education was successful in transforming social attitudes regrading health, reproduction, and disability.

Eugenics was enthusiastically embraced in early twentieth-century America. Contemporary Americans would have a hard time understanding how a movement that bolstered the mass sterilization of over 60,000 citizens would be so widely accepted. Were they forced to believe it was necessary? Were they deceived by propaganda? Against the dominant historiography of the last couple decades that treats bioethical issues related to eugenics as an alternative between choice and control, this new archival research reveals that many eugenicists encouraged personal choice to accomplish their plans for racial betterment. Offering the first thorough analysis of eugenicists' diagnostic and therapeutic techniques, this book traces the paper-based tools used to convince a willing public of its inherent potential for vice and justify any means for curtailing that potential. These techniques consolidated social hierarchies of race, sex, and disability with scientific facts and ways of seeing that continue to impact American attitudes toward health, reproduction, and identity. As reproductive and genetic technology rapidly change popular conceptions about what a person is, can be, and should be, it is more vital than ever to locate these perspectives and decisions in their historical context. This book uncovers how contemporary scientific, political, and cultural practices have been shaped by this legacy and concludes that reproductive autonomy is not the panacea for authoritarian eugenics that many believe it to be.

2

Pedigree Analysis

At the turn of the twentieth century, two distinctively American inventions changed the world: jazz and eugenics. As musicians began to experiment with improvisation and collective polyphony, they were inspired by the sounds of the blues, ragtime, African spirituals, and European military music. But what emerged from this intermarriage of novel form and classic content was marked by a new sensibility. It was only in America[1] that this recipe of diverse ingredients would produce the music known as jazz. In the same way, eugenics, the science of improving human reproduction, has its roots in English anthropology, French degeneracy theory, and Italian criminology, yet it did not come into its own until American scientists from various disciplines formalized it and developed the techniques that would define its practice.

Charles Darwin's *On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life* (1859) famously shook the world out of its dogmatic slumbers by proposing a purely mechanistic explanation of the generation of life. Its emphasis on racial hierarchy within the human species became an even more prominent theme in its sequel, *The Descent of Man* (1871). Equating human races to biological species, Darwin argued that there exist qualitative differences between races and that the "civilised races of man will almost certainly exterminate and replace throughout the world the savage races."[2] Beyond physical appearance and cultural norms, races were said to differ according to their inherent mental faculties. Darwin's theory of evolution attempted to explain why these differences existed. The great difficulty of this research was its focus on unobservable qualities or events, such as mental traits or "unconscious selection."

Yet unobservable does not imply unknowable. These traits and events leave their mark on the body. Darwin highlights this vital claim in the final line of *Descent*, "Man still bears in his bodily frame the indelible stamp of his lowly origin."[3] This lowly origin was none other than the force governing the struggle for life in all species and races. Darwin believed that this force, which followed a homeopathic logic, could be explained and possibly even controlled. That logic goes by the name "natural selection."

The concept of natural selection created a Copernican revolution in mid-nineteenth-century science. It connected all life to a fundamental force that claimed to govern both individual and species reproduction. Though the force, like gravity, could not be seen, it could be measured through observation and other scientific techniques. Many European scientists, like those from the disciplines listed above, tried to assimilate this new concept into their respective fields. The result was a renaissance of race-based science that paved the way for the birth of eugenics. This historical path was predestined by Darwin himself, who praises what is widely believed to be the first text on eugenics, *Hereditary Genius* (1869), written by Darwin's cousin, Francis Galton.[4] By making the forces of reproduction observable and quantifiable, the scientific analysis of natural selection created the opportunity for the management of human reproduction with the specific aim of improving the race.

Eugenics, like other biological sciences of its time, tried to analyze, measure, and manage evolutionary forces in an attempt to "breed" the most desirable human offspring. I will use the term "breeding" to denote human reproduction for two reasons. First, it was the common nomenclature for early twentieth century eugenicists. Second, it signifies a crucial metonymy that all of eugenics relied on: the analogy of plant and animal breeding with human "breeding."[5]

To begin to apply the laws of heredity to humankind, eugenicists had to develop techniques for measuring the invisible fault lines of evolutionary progress. Nowhere was this problem more intensely studied than in the United States, which social historian Richard Hofstadter has called "*the* Darwinian country."[6] This chapter examines the origins and features of the innovative, analytical techniques developed by American eugenicists to diagnosis individuals' procreative worth. Building on psychological tests and sociological family studies, eugenicists constructed two-dimensional "paper tools" that were designed to interpret an individual's heredity based on certain bodily phenomena. Eugenicists, especially at the Eugenics Record Office (ERO), relied on these tools for everything from promoting their use in the general population to using their results to segregate, sterilize, and deport so-called "undesirables." Although these techniques were sometimes inspired by foreign scientists, Americans perfected them to the point that the international community, including Nazi Germany, adopted American diagnostic methods.

The first half of the chapter seeks to complicate two widely-held beliefs in the historiography of eugenics. First, historians and cultural theorists speak about eugenics as a science of population control, i.e. the management of specific sub-populations defined by a particular social identity (such as black, female, or poor) for the purposes of protecting the "healthy" or "good" portions of the population; this claim is often implied by the definition of eugenics presented rather than by explicit argumentation.[7] Second, historians claim that eugenicists adopted their theory of heredity from Gregor Mendel's research on cross-breeding pea plants.[8] This theory closely linked an individual's heredity to that of their parents, grandparents, and other ancestors further down the lineage, thus making hereditary transmission a function of sex. By closely examining eugenicists' diagnostic techniques, I argue that American eugenicists treated the individual, rather than the population, as the fundamental unit of analysis. From a meticulous study of the individual, eugenicists developed a theory of heredity that expanded the sex-linked model promulgated by Mendel. Instead of situating hereditary transmission in sex alone, American eugenicists cultivated a theory of "hereditary potentialities" that were diffused throughout the entire, loosely-defined kinship group. This new conception of heredity multiplied the presumed social risks of inherited disease, disability, and deviance.

The second half of the chapter describes how this theory was articulated in the diagnostic instruments and educational materials developed by the ERO and leading eugenicists. These artifacts reveal that eugenics was not the management of breeding *per se*, but of breeding potential,[9] and addressed itself to all potential parents in order to normalize their reproductive lives according to eugenic principles of better breeding. As such, eugenic discourse underscored potentiality (of disease, deviance, or disability) as the defining element of the individual or, as it was appropriately termed, *propositus*. The propositus, not the population, served as the fundamental unit of diagnostic analysis and therapeutic intervention. Although eugenicists hoped to improve the race and nation through managing individual reproduction, their strategic emphasis on individual study has been underappreciated by other scholars.

As the management of potential, eugenics was originally applied to a diverse range of individuals before it took on the scope of the entire population. The potential to breed a "dysgenic" child or to do social harm was a biological capacity that preceded the social distinctions of race, gender, class, and disability status. Nevertheless, these distinctions played a crucial role in the identification of supposedly dysgenic traits by professional eugenicists who were predominantly white, middle class, abled males. Through the creation of new diagnostic tools, like pedigree analysis, eugenicists attempted to establish an objective justification for white supremacy, ableism, and heteronormativity. With a modern, hereditarian vocabulary of "defect" and disability, scientists, social workers, and other experts rationalized their intervention in and impairment of the lives of hundreds of thousands of Americans.

The Individual in Pre-Eugenic Thought

Developments in psychology, sociology, and biology at the turn of the century laid the groundwork for a new conception of the body. The body, it was believed, was the link between the psychical and physiological processes of the subject, which made it a privileged site for eugenic diagnosis. These developments are essential for understanding how eugenicists conceived of and analyzed the human body. In their most detailed published instructions for how to assess an individual's procreative worth, American eugenicists Charles B. Davenport and Harry H. Laughlin highlight the importance of analyzing "personality" and its bodily manifestations. This analysis is completed, either by a trained eugenics field worker or oneself, through questionnaires and observation. The form and content of these techniques were largely adopted from contemporary psychological studies. Davenport and Laughlin recommend that the student of heredity read and understand crucial works such as *Outline of a Study of the Self* (1914) by Robert M. Yerkes and Daniel W. LaRue.[10] Yerkes and LaRue cite as their own inspiration another influential study of personality, George E. Partridge's *An Outline of Individual Study* (1910).[11] This work is critical for clarifying who was selected for eugenic diagnosis, what tools were used for that purpose, and how heredity was conceived within the scientific literature of the time.

George E. Partridge was a Fellow in Psychology at Clark University and studied under G. Stanley Hall, the first President of the American Psychological Association. His early research sheds light on his later attempts to map hereditary traits, such as in his work on alcoholism (or, the "intoxication impulse"), which situates the condition within a hereditarian framework that concerns individuals as well as races. It was widely believed at the time that alcoholism was the mark of "bad" heredity and could often be found in criminals and "degenerate" individuals. In fact, Partridge specifically cites Italian criminologist Cesare Lombroso and social critic Max Nordau as precursors in the study of abnormal pathology.[12] He distances himself, however, from these figures because of their "dangerous and narrow minded tendency of regarding *all* departures from the so-called type as abnormalities."[13] His goal was to explain the range of pathological mental variations that can be considered normal, and thus better demarcate the territory of abnormality.

This academic and medical interest in normality was a recent development in Partridge's time. In *The Normal and the Pathological*, historian of science Georges Canguilhem examines physiology and its role in delimiting the concepts of normality and pathology in medicine during the eighteenth and nineteenth centuries.[14] He demonstrates that modern pathology, or the study of abnormality, was formulated after the invention of technical means of quantifying biological processes. Physiologists, biologists, and later physicians established quantitative criteria for defining the normal functioning of the human body. Any deviance from the norm was elucidated in strictly quantitative terms and deemed pathological, or abnormal. The diametric opposition between normality and pathology was thus annulled when a common measure was established.

Insofar as quantitative techniques constructed the value of normality, they turned "disease" into an object of study that no longer was tethered to its phenomenal representation in the patient's anguish.[15] In the modern era, a disease was articulated and studied through a pathological structure and not, as in earlier medical science, by the symptoms it produced in the patient. No longer restricted to using phenomenal symptoms as its sole evidential basis, physiology was able to pursue the normalization of the biological subject without limitation. Along with Darwinian evolutionary theory, these developments laid the groundwork for a eugenic conception of the body.

Partridge's early work on alcoholism is a pathology in this sense. Alcoholism, he concludes, is a general instinctive tendency that cannot be reduced to either physical craving or psychological impulse. Rather, it is a combination of the two. As such, the tendency could be modified by removing the psychological desire for it, which could be achieved, for example, by limiting access to intoxicants. This theory gained social and political support through the temperance movement, but Partridge believed it was not sufficient to eliminate the biological basis for alcoholism. At the time, many were not concerned with this aspect since it was popularly held that alcoholism caused infertility and that the "alcoholic" would naturally become extinct. Partidge disagreed and highlighted the diffuse affects of alcoholism on the populace:

> It is a mistake to think that free access to alcohol decreases the number of the unfit in regard to it, for the reason that in exposing all to this selection, many whole families are injured from which weakness might otherwise be eliminated in a few generations; for a slight degree of craving on the part of a parent may, if indulged, produce degeneracy in the offspring, by direct effect of the alcohol, while many others are indirectly injured.[16]

Effectively, Partridge rejects population-based strategies such as temperance and "free access" for curing alcoholism. Instead, he calls for a new and “broad biological method” in which “the individual is the unit.”[17] This new analysis of the individual, he claims, has the power to solve ‘the ‘ethical” problem of alcoholism. But how and with what tools could individual analysis resolve a social problem?

An Outline of Individual Study heeds the call of Partridge’s early research. It was published at a time when many psychologists became interested in identifying and fully understanding the individual self.[18] For Partridge, the value of individual study was in its apparent ability to quantify individual traits and assess the fitness of those quantities within the context of the species. Thus, the most pressing problem of this research was honing the ability to effectively and efficiently diagnose individuals; such a diagnosis could be used to “understand in a practical way, his [the individual’s] abilities and values, to predict reasonably his future, and to have a basis for rationally controlling his life.”[19] Partridge synthesizes the work of English eugenicists (especially Karl Pearson) and French psychologist Alfred Binet to develop his notion of the “whole individual.” The whole individual is the complex ensemble of characteristics, habits, interests, and deficiencies that causally explains the psychical and physiological phenomena of that individual. Some of these traits may be fully known by the individual, but others are out of their control (e.g. hereditary dispositions). Knowledge of these traits, Partridge hopes, would allow a thoughtful physician to predict an individual’s future and intervene in an appropriate way.

At the core of this study of individuality is the notion of variation. Variation refers to a difference in a particular feature represented in members of a common species. In *Origin of Species*, Darwin recorded variations in plants and animals. For example, the pistil of a flower may vary in size among individuals of the same species. Darwin hoped to decipher a law in his records that would allow the biologist to discern the cause of a certain variation. Ultimately, he argued that variations resulted from the conditions of life in which one’s remote ancestors lived, rather than from any direct stimulus during the reproductive process.[20] Partridge adopted the same hereditarian view on variation, but extended it to the human species.

By the time Partridge’s *Outline* was published, Davenport and his wife, Gertrude, had already penned an influential paper entitled

"Heredity of Eye-Color in Man."[21] The Davenports and others around this time suggested that variations in the eye, hair, and skin color of humans were hereditary. Partridge's study, however, takes this view a step further by arguing that even mental traits exhibit hereditary variations. Building on Binet's early intelligence tests, Partridge argued that it would be possible to measure variations in cognitive ability with simple tests. In devising these tests, he was inspired by Galton and Pearson's recent studies in anthropometry, the science of human measurements. These English eugenicists measured and recorded variations in human bodies and attempted to correlate them to racial and sexual differences. By synthesizing these two studies on hereditary ability, Partridge reconceived of the body as a site where one's "inner life is partly expressed." He explains:

> Here indeed is the central point of the theory of individual-study. The most practical point to observe is that on this consideration the most determining traits of individuality are to be sought, not in the higher sentiments and their manifestations in conduct, but in the simple reactions, the primary instinct-feelings; variations in which, if the biological hypothesis is correct, determine largely differences in the higher or more complex traits of the moral, religious, social, aesthetic, and practical life.[22]

In this way, the body, as observable link between psychical and physiological processes, is the key diagnostic object for assessing the whole individual. "Whole" should be understood not just in terms of biological life, but social life as well. Hence, individual-study serves the dual purpose of individual evaluation and social classification.

In line with the methodological approach of his previous research on alcoholism, Partridge delineates two fundamental types of individual variations: normal and abnormal. All attributes, he believed, could be measured and evaluated in terms of how closely they matched the norm. He contends that these measurements have practical applications in physical training and the study of racial differences. But their most valuable application is clear: the scientific diagnosis of fitness. In distinction from the prevailing germ and degeneracy theories of the late nineteenth century, Partridge maintains that optimal physiological functioning depends far more on a body's proximity to the norm than on the presence of germs or disease. Variation must be especially attended to when one is concerned with identifying "unfit" bodies:

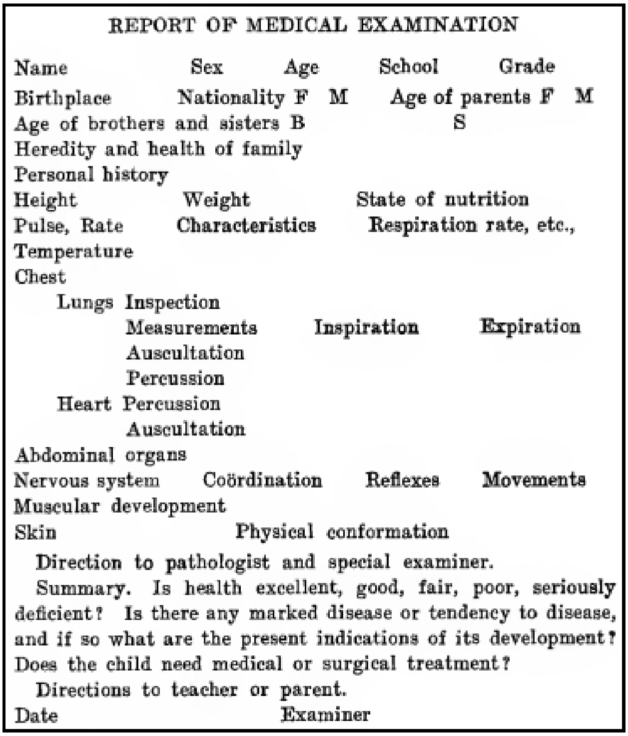
> Besides these normal groups, the criminal, and the socially defective generally, must be studied as members of a variational series rather than merely as diseased or abnormal persons. The victims of alcohol, the unfit, and the vicious of all kinds must so be considered."[23]

Thus, Partridge's individual-study assimilates individual, social, and racial hygiene with the goal of evaluating the social body one individual at a time. All that is needed is a form of analysis adequate to this conception of the "whole individual."

General psychology was already inundated with methods of mapping mental traits, but, according to Partridge, they required complicated apparatus that can only be found in laboratories with electric equipment. The goal of the *Outline* is to simplify this process. Partridge's dream, as will be that of many American eugenicists, was to be able to assess the quality of an individual's physical and mental traits at a glance. In fact, the procedure would be so simple that a casual observer could conduct it, and the methods to carry it out would "require no apparatus."[24] Although he says that they are directly reproduced from, with slight variation, Binet's questionnaires, there is more to this story.

G. Stanley Hall, Partridge's mentor, resisted the tendency for abstraction in psychology and inspired generations of psychologists to pursue experimental methods. The most famous of these methods was the questionnaire, composed of open questions (or "blanks"), ranking questions, or a combination of the two. Historian Jacy L. Young has demonstrated how the questionnaire emigrated from Galton's Anthropometry Lab in London to the United States. The first to take hold of questionnaire-research in psychology was biologist and later prominent eugenicist Henry Fairfield Osborn. As Young shows, Osborn's use of the questionnaire, inspired by Galton's methods and motives, was an "immediate precursor" to Hall's more extensive use of the method, which was the impetus of the first American psychological laboratory.[25]

An aspect of Partridge's faithful adherence to his mentor was the adoption of the eugenically-oriented questionnaire in his own methodology. The majority of the *Outline* is a series of questionnaires pertaining to objective and subjective criteria. The first and most important questionnaire concerns health. Unlike other chapters where Partridge just lists the questions in prose, the health questionnaire is printed at the end of the chapter as a "report-form" that can be utilized by the reader (Figure 1). This report-form constitutes what is perhaps the earliest non-electric, two-dimensional diagnostic instrument, or what one historian has called a "paper tool," for eugenic purposes in the United States.[26] Paper tools like this one would proliferate in the American Eugenics Movement and would come to serve as justification for coercive sterilization laws and immigration restriction.



REPORT OF MEDICAL EXAMINATION

Name Sex Age School Grade
Birthplace Nationality F M Age of parents F M
Age of brothers and sisters B S
Heredity and health of family
Personal history
Height Weight State of nutrition
Pulse, Rate Characteristics Respiration rate, etc.,
Temperature
Chest
  Lungs Inspection
    Measurements Inspiration Expiration
    Auscultation
    Percussion
  Heart Percussion
    Auscultation
Abdominal organs
Nervous system Coördination Reflexes Movements
Muscular development
Skin Physical conformation

Direction to pathologist and special examiner.

Summary. Is health excellent, good, fair, poor, seriously deficient? Is there any marked disease or tendency to disease, and if so what are the present indications of its development? Does the child need medical or surgical treatment?

Directions to teacher or parent.

Date Examiner

Figure 1: Report-form for a preliminary examination of health.

Historians of eugenics have not yet assessed Partridge's contribution, but it is clear that he provided the philosophical and technical foundation that later eugenicists (like Yerkes, LaRue, Laughlin, and the ERO in general) relied on to construct their diagnostic paper tools. His work both marks and is marked by eugenic preoccupations, and appears slightly earlier than that of other psychologists with hereditarian persuasions. For example, renowned historian of science Stephen Jay Gould claims that one of the first uses of Binet's intelligence test in the United States was conducted informally by Henry H. Goddard, another student of Stanley Hall, on Ellis Island in 1913.[27] Although Goddard's efforts more directly contributed to eugenic legislation than other psychologists, it was Partridge who first translated Binet's work and put it into the service of detecting hereditary defects.

Yerkes and LaRue's *Outline of a Study of the Self* acknowledges its debt to Partridge explicitly and carries over his hereditary conception of the body. The Yerkes-LaRue outline states that the primary function of the individual body is the expression of heredity. This expression appears epiphenomenally through processes that are physiological and psychical. The most important diagnostic category, however, was the social group. The outline would not be able to fulfill its purpose if it could not also draw comparisons between individuals by quantifying and categorizing their characteristics in order to establish bounded categories that delineate levels of social productivity. The Yerkes-LaRue outline is a slightly more sophisticated method of evaluating the supposed social productivity of individuals than Partridge's questionnaires.

The outline itself consists of four categories of questions that ask about an individual's ancestry, development (i.e. childhood to adolescence), adult life, and self-perception of the larger meaning of their character in terms of their vocational, marital, and social relations. Each category is broken down into three or four topics, with subtopics to guide the respondent. The outline of questions, or what basically amounts to a questionnaire, is presented in the first three pages of the book. The remaining two dozen pages elaborate on the outline by presenting numerous, specific questions for each topic and subtopic. These elaborations are often based on Yerkes and LaRue's own questions, but they sometimes refer the reader to other psychological works (like Partridge's *Outline*) or even to materials distributed by the ERO.

While Yerkes and LaRue follow Partridge's emphasis on practical methods and effective diagnosis, they bring it a step further in an intellectual partnership with the Eugenics Record Office.[28] Partridge closed his *Outline* by imaging a centralized office that would record the hereditary traits of all individuals:

> What is needed is an institution in which shall be concentrated all the methods applicable to the study of the individual, and which shall also serve as a central point for the dissemination of practical knowledge, the training of experts, collection of literature, and even work in examination of individuals, or assistance to those who are practically engaged in such work.[29]

These bureaucratic structures, actualized the same year as Partridge's request by Charles Davenport's establishment of the ERO, would record, monitor, and control individuals according to a new kind of power, one that did not just govern individuals but their potential. It served not so much to consolidate and verify information as to extend and propagate eugenic discourse in all areas of everyday life. Its influence can be seen on Yerkes and LaRue who, writing in 1914, integrated the standards of the ERO into their outline, the most important of which was asking participants to send copies of all individual and family records to the ERO. They even include an "accompanying blank" copy of the ERO's Fourth Edition of the "Record of Family Traits," a twelve-page document that asks about the family's health history, heredity, social standing, and special abilities.

Aside from the formation of a bureaucratic structure, Yerkes and LaRue share one more interest with Partridge that will come to define how eugenicists assess the social worth of individuals: temperament. At this rudimentary stage of research on inheritance, scientists believed that most, if not all, human characteristics where based on single germinal entities. Today these entities are called "genes," but eugenicists knew them as "unit characters" and "hereditary traits." Temperament, regardless of its degree of variation or external circumstances, was believed to be the expression of a single, hereditary trait.[30] Despite the broad spectrum of behaviors that may be associated with an individual's temperament, Yerkes and LaRue define it simply as an inherited disposition that can be measured with a short string of adjectives.

They help the respondent distill their temperament into a set of adjectives by providing a block of opposing characteristics and asking the respondent to underline which term they self-identify with more. Some examples of these binary temperaments are visionary/matter-of-fact, sanguine/melancholic, and erotic/cold.

The relation of temperament to social worth may seem incomprehensible today, but it was a widely held opinion of American psychologists in the early twentieth century. The reason is that temperament was not seen as just any hereditary trait, but as a bodily disposition that united mental and physical traits in a complex expression of individual ability and hereditary potential. Partridge makes this point explicit when he argues that temperament has a physiological basis and, as such, can be used to classify whole individuals, especially with regard to racial differences or tendencies toward disease. He distanced himself from crude sciences like phrenology by arguing that physical features are not enough to evaluate an individual. It is temperamental expression, with its synthesis of physical and mental traits, that reveals the whole individual. Yerkes, like his Harvard colleagues, also foregrounded emotional life in his psychological experiments, first with primates and later with humans. Based on an evolutionary perspective, he interpreted the instinctive and affective behaviors of animals as temperamental precursors to similar behaviors in humans and still present in supposedly less evolved humans (e.g. "mental defectives"), a theory known as recapitulation.

To assess temperament, new analytical instruments had to be invented. One sees this need clearly in Partridge's call for "methods that require no apparatus." Likewise, Yerkes adjusted his experimental techniques. In 1913, Yerkes began working with human patients at the Boston State Psychopathic Hospital. His work involved utilizing a device he designed completely on his own. The so-called "multiple-choice apparatus" was a keyboard made out of wood and brass with electrical lights and sounds. By correlating keystrokes to a bell and light bulb, he developed puzzles of varying difficulty with the goal of measuring intellectual ability. The ultimate aim was to delineate the average variation in intellectual ability among abnormal individuals. The data, however, was inconsistent. Although continuing to commercially promote the apparatus for testing purposes, Yerkes had traded in his electrical box for a paper tool the following year.

To determine the spectrum of normal (species) variation according to highly qualitative and subjective data from individuals could seem like a methodological dead-end. One might assume, based on this focus, that the emphasis on the individual eclipsed consideration of the familial and social context. Yet when psychologists conceived of the body as the complex expression of individual ability and hereditary potential, they were accounting for precisely this context. To explain how this conceptual history of the body developed, it will be necessary to go back to an internationally influential sociological study from the nineteenth century, which was the first study to link social disease to individual pathology.

In 1877, Richard L. Dugdale published what is today the most frequently cited eugenic family study, *The Jukes: A Study in Crime, Pauperism, Disease and Heredity.* As a prison inspector in upstate New York, he came across many inmates who, in one way or another, were related. The eponymous "Jukes" was a pseudonym for this loosely knit "family" of people related by blood or marriage. I say "loosely knit" because the pseudonym actually applies to 42 different families encompassing 709 total individuals. Curious about how the other members of a family with a seemingly exorbitant number of criminals were fairing, Dugdale set out on a self-funded investigation to find them, record their living conditions and personalities, and map their genealogy. He concluded that the family was afflicted with a hereditary propensity for crime, harlotry, pauperism, and other "immoral" or "degenerate" behavior.[31] The study was groundbreaking not only because it claimed to have discovered the root cause of crime and other social ills, but because it situated heredity as a public health and criminological issue. It preceded and directly influenced Galton, who praised it in *Hereditary Genius.* Later, American eugenicists would treat it as scripture, only slightly revising some of its tenets to fit it into contemporary campaigns for compulsory sterilization.[32]

Many historians of eugenics have already written about *The Jukes.* What deserves closer attention, however, is Dugdale's object of study. He pieced together the familial links and individual personalities of the Jukes based on testimony from neighbors, employers, public officials, and institutional and court records. He hoped to uncover the general tendencies of the Jukes family, which could then be used to address each individual family member in terms of how those tendencies were expressed in their characters. One might think, then, with such a large number of research subjects, Dugdale would resort to some form of statistical analysis in which the family was the object of study.

Surprisingly, he argues that the "minute study of individual lives" as well as the "causes and consequences of [individual] constitutional habits" must be made the central focus of the study, without which one would not be able to discriminate the "essential from the accidental elements of social movement." Individual study was so important to Dugdale that it was both method and solution. A firm understanding of the hereditarian basis of crime, he supposed, would allow for a new "order and kind of treatment" that focuses on the "ascertained deficiencies of each person" in order to make them suitable for society. If it is not possible to mold a habitual criminal's character into a socially adequate shape, then the criminal has no place in society: "where we cannot accomplish individual cure we must organize extinction of their race."[33]

Enticing to scientists all around the world, Dugdale's study was received as incontrovertible proof that social problems like crime and poverty are the result of "bad" heredity. In articulating heredity as the potential for spreading social disorder, this study inscribed biological science into the heart of the juridical and political management of society. In the American context, it created a new genre that would be heralded as the fundamental method of eugenic diagnosis. Like the American psychological studies discussed above, *The Jukes* determined group identity through individual study. In the bodily dispositions and moral character of each family member, Dugdale traced the general tendencies imprinted on their family's "cerebral tissue." Thus, partly as a result of the popularity of *The Jukes*, the body and individual character were inscribed in discourses of public health, racial improvement, and nation-building.

The half-decade in American social science that I have described thus far was a significant turning-point. Scientists synthesized previous research on physical and mental characteristics to develop a new, holistic approach to the individual. This approach focused on identifying, measuring, and evaluating imperceptible hereditary traits through an individual's bodily dispositions. To see what could not be seen, psychologists developed the first ever paper tools to be used to classify individuals. These diagnostic instruments implicitly reinforced the modern view of the tripartite body, which was a point of convergence for physical, mental, and temperamental traits. Moreover, this body was intimately linked to social pathology insofar as it manifested the potential for socially productive or destructive behavior. This conception of the body jettisoned old notions of personal autonomy, will, consciousness, and rational decision-making in order to locate subjectivity in a body's potentiality, both in terms of its ability (literally, abledness) to be economically productive and its hereditary potential to socially and biologically degenerate the race and nation.

Hierarchically ordered, traits were ranked according to their social desirability. The stated goal of this classification system was to identify abnormal individuals and intervene with institutional controls before they had a chance to harm society. In the larger hereditarian outlook, it was believed that this intervention would modify and improve familial and racial groups by restricting the reproductive activity of individuals with dysgenic traits. Hence, American social scientists at the turn of the century provide the means for articulating a new objectified body whose essence resides in its potential. This new conception of the body and the instruments that define it form the basis of the innovative diagnostic techniques developed by American eugenicists.

Paper Tools

The defining work of American eugenicists that set them apart from their international colleagues was the creation of paper tools. The most significant of these tools was pedigree analysis, a form of genetic genealogy focused on individual diagnosis. Pedigree analysis was frequently hailed as a panacea to America's greatest social ills including immigration, criminality, and mental disability. It quickly became the preferred technique of eugenic diagnosticians and was employed in pivotal legal cases, such as the Supreme Court of the United States' decision upholding the constitutionality of compulsory sterilization, *Buck v. Bell* (1927). A close reading of the development and practice of this technique reveals how American eugenicists uniquely conceived of heredity. This conception of heredity, as I will show, was the basis and justification for the limitless expansion of eugenic initiatives.

Pedigree analysis, although not yet formalized at this point, is introduced in ERO Bulletin No. 1, a study on the heredity of feeblemindedness by Henry H. Goddard. As Director of Research at the Vineland Training School for Feeble-Minded Girls and Boys in New Jersey, he diagnosed and treated children with suspected cognitive disabilities. Upon admission, children or their caretakers were asked to fill out several "admission blanks" providing information about the patient. One blank in particular that interested Goddard in his diagnostic capacity was "ancestry." Similar to Partridge's "Heredity and health of family" blank, the "ancestry" blank inquired about the child's hereditary dispositions. The responses to this blank, so crucial to the burgeoning eugenic enterprise, were found lacking by Goddard. Either the descriptions were not sufficient or parents, according to Goddard, wrote down whatever they thought would get their child admitted. The admission blank had failed to accomplish what it was designed to do. A new technique was necessary.

The technique Goddard proposed was called the "After-admission Blank." The idea was that "field workers" (of which two were immediately employed for this task) would go about the delicate business of investigating each patient's ancestry after they had already been admitted. In practical terms, this investigation involved gaining the trust of the child's family and interviewing each relative in order to acquire as much information as possible about the health of their germ-plasm. This information, gathered for the sake of the child, included everything that could be known about "the child's relatives, their condition, any diseases they had had, any habits, such as alcoholism, any insanity or the like which had occurred in the family."[34] Based on this new information, Goddard pieced together fifteen pedigree charts, most of only three generations, that he believed demonstrated the hereditary nature of "feeble-mindedness."

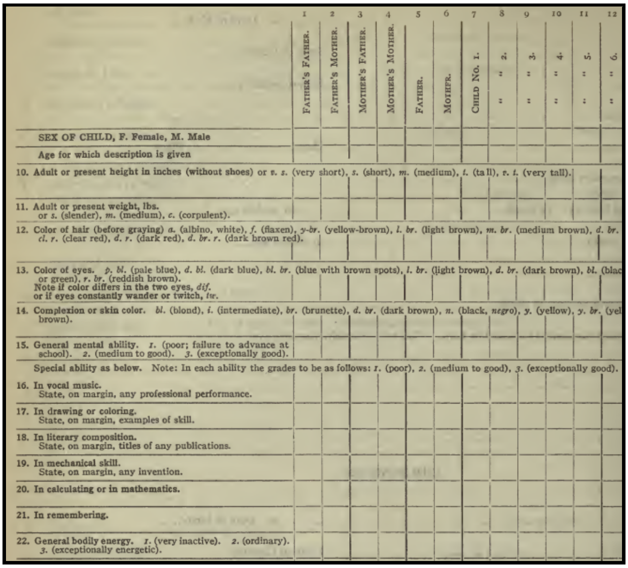
In this form, pedigree analysis continues in the tradition of the early family studies like Richard Dugdale's *The Jukes* (which included large fold-out genealogical charts) and Francis Galton's

Hereditary Genius.[35] Yet it would be a mistake to claim an isomorphism from this resemblance. Pedigree analysis adopts from these sociological family studies one significant emphasis: group hereditary potential, specifically of the family. Nevertheless, it refocuses the object of study on the individual, particularly with the goal of ameliorating social problems at that level. Thus, Dugdale's early study differs significantly from pedigree analysis. It examined the individual in order to chart group heredity. Pedigree analysis, by contrast, investigates group heredity in order to evaluate the individual. In fact, it was developed precisely in reaction to the failure of sociological methods.

Eugenicists were originally optimistic about the amount of biologically-relevant data which could be found in various forms. One argued that proof of the "inheritance of ability in American families" already existed because "genealogies there are by the thousands, genealogical societies by the score, and plenty of biographical dictionaries and histories with the needed material."[36] This "genealogic-biographical method," with its focus on the individual, was thought to be of higher predictive value than statistical analysis. In addition to genealogies, Davenport suggested mining data from institutions such as charities, asylums, schools for persons with disabilities, hospitals, refuge homes, prisons, almshouses, insurance companies, and college gymnasiums.[37] Eugenicists quickly realized that there was a significant problem with this data.

When the Eugenics Record Office opened in 1910, it trained twelve field workers, six of which were kept on as staff at the Office. One of these field workers, Miss Amey B. Eaton, was tasked with cataloging genealogies in the New York Public Library "with a view to locating those that record the transmission of specific mental and physical traits."[38] Within just six months, Eaton collected 293 pages of pedigrees and 731 pages of individual descriptions. After review of these pages, Laughlin concluded in a published report on the ERO's work that "in the hundreds of genealogies published, there is too little material of use to the eugenist."[39] The problem was that they lacked any mention of heritable traits, which made them almost worthless to the eugenic enterprise. In spite of early enthusiasm, genealogy and early family studies served more as inspiration for the creation of new diagnostic instruments than as a ready-made method.[40]

Prior to the disenchantment with existing genealogies, Davenport had already begun inventing a new way of identifying and tracking hereditary traits. In a report from the American Breeders Association's Committee on Eugenics in early 1910, he explained how the committee created special "blanks" that inquired about "the inheritance of characteristics of health, ability and temperament from typical American families."[41] Of the 5,000 distributed, 300 family records were received by the time of the report. These "blanks" constituted one of the first versions of the "Record of Family Traits" form that would be used by eugenicists and geneticists for the next four decades (Figure 2). They were designed to capture what traditional genealogy could not: heredity. For this new technique to succeed, it was equally important to have a reliable interpretive apparatus in the form of a central bureau that could collect the data and evaluate each individual in terms of the "great strains of human protoplasm that are coursing through this country."[42] The idea for a central bureau became a reality later that year with the establishment of the ERO.



	1	2	3	4	5	6	7	8	9	10	11	12
	Father's Father.	Father's Mother.	Mother's Father.	Mother's Mother.	Father.	Mothfr.	Child No. 1.	" " 2.	" " 3.	" " 4.	" " 5.	" " 6.
SEX OF CHILD, F. Female, M. Male												
Age for which description is given												
10. Adult or present height in inches (without shoes) or *v. s.* (very short), *s.* (short), *m.* (medium), *t.* (tall), *v. t.* (very tall).												
11. Adult or present weight, lbs. or *s.* (slender), *m.* (medium), *c.* (corpulent).												
12. Color of hair (before graying) *a.* (albino, white), *f.* (flaxen), *y-br.* (yellow-brown), *l. br.* (light brown), *m. br.* (medium brown), *d. br.* *cl. r.* (clear red), *d. r.* (dark red), *d. br. r.* (dark brown red).												
13. Color of eyes. *p. bl.* (pale blue), *d. bl.* (dark blue), *bl. br.* (blue with brown spots), *l. br.* (light brown), *d. br.* (dark brown), *bl.* (blac or green), *r. br.* (reddish brown). Note if color differs in the two eyes, *dif.* or if eyes constantly wander or twitch, *tw.*												
14. Complexion or skin color. *bl.* (blond), *i.* (intermediate), *br.* (brunette), *d. br.* (dark brown), *n.* (black, *negro*), *y.* (yellow), *y. br.* (yel brown).												
15. General mental ability. *1.* (poor; failure to advance at school). *2.* (medium to good). *3.* (exceptionally good).												
Special ability as below. Note: In each ability the grades to be as follows: *1.* (poor), *2.* (medium to good), *3.* (exceptionally good).												
16. In vocal music. State, on margin, any professional performance.												
17. In drawing or coloring. State, on margin, examples of skill.												
18. In literary composition. State, on margin, titles of any publications.												
19. In mechanical skill. State, on margin, any invention.												
20. In calculating or in mathematics.												
21. In remembering.												
22. General bodily energy. *1.* (very inactive). *2.* (ordinary). *3.* (exceptionally energetic).												

Figure 2: Excerpt from the "Record of Family Traits," Fourth Edition.

The announcement of the opening of the ERO in the *Journal of Heredity* was quite short and highlighted the most important functions of the Office. First, a small fireproof room made of steel and concrete was added to the building in which the Office resided.[43] This indestructible room would hold the treasure of eugenics, on which rested the health and longevity of the American germ-plasm: pedigree charts. The announcement also mentioned the employment of the six field workers and the availability of "family record blanks" for any readers who wish to voluntarily submit their family history to the Office. From its original announcement, the purpose of the ERO was clear: to be a "clearing-house" (as it later refereed to itself) for information regarding the state of American heredity. Although it ultimately hoped to influence public policy and advise private citizens regarding marital and vocational options, the fundamental goal of the ERO was to build a database of pedigrees. This fact is evident in a 1919 list of ERO functions in which over half of the stated objectives involved gathering pedigree information.[44]

By 1911, pedigree analysis completely eclipsed sociological family study. Not only did it provide a better means of diagnosing an individual's hereditary potential, but, by focusing on the individual instead of a group, it presented the possibility for concrete intervention. As an anonymous editorial from the *Journal of Heredity* notes, once a pedigree record is compiled that includes individual values, "the race will more rapidly slough off its weak branches, while the more virile and useful stocks will build up the tree of life."[45] The individual, then, is the site of racial improvement and national efficiency. Despite a tumultuous beginning, the victory of pedigree analysis did not diminish. Nearly a decade later, Laughlin continued to condemn the failures of "ordinary genealogy" when compared to the "biological enterprise" that is pedigree study.[46]

During an October gathering in 1910 at the New Jersey State Village of Epileptics in Skillman, New Jersey, ERO members, field workers, professors, public officials, and volunteer citizens compared notes over common difficulties and methods.[47] Papers were presented on the Binet test and the inheritance of "traits" such as insanity, epilepsy, and feeble-mindedness. The gathering, veritably an American Wannsee Conference, included a special evening session dedicated to determining a system of nomenclature and other standards for field workers. This system formalized the primary eugenic technique for “weeding out” defective genetic strains in individuals. Unlike the Nazi conference of 1942, the findings of this meeting were published and widely distributed as ERO Bulletin No. 2, “The Study of Human Heredity: Methods of Collecting, Charting, and Analyzing Data.”

Bulletin No. 2 was the first of a series of instructional materials created and distributed in rapid succession by leading eugenicists working at the ERO. The audience was diverse. Field workers in training, non-ERO eugenicists, university professors, high school teachers, and average citizens were some of the groups that eugenicists tried to speak to with their reports. The goal was not only to formalize the techniques of professionals in the field, but also to encourage and solicit the participation of the average citizen. Bulletin No. 2 describes four methods that were being used at the ERO and the institutions at Skillman and Vineland: field work, pedigree charting, individual description, and analysis. By far, the methods that get the most attention and remain of great interest throughout subsequent Bulletins are pedigree charting and its subsidiary technique, individual description.

Even though the pedigree chart was the ultimate product of individual analysis and the only artifact necessary for diagnosis, it could not be made without individual descriptions of each person within the pedigree. In this preliminary version, the framework for individual description is rudimentary and limited to thirteen blanks: name, sex, date of birth, place of birth, date of death (if deceased), cause of death, place of death, date of immigration (if applicable), mental and physical condition, marriage status, occupations, general description of household influences, environment and education, and the sources of this information. Examiners were encouraged to pay close attention to biological “illnesses” that mixed immorality with disease in their descriptions, including “especially valuable” symptoms such as “alcoholism, venereal disease (including gonorrhea and syphilis), sexual immorality, St. Vitus’ dance or chorea, and sick headaches.” These symptoms were some of the primary traits that the ERO focused on in its early years. The list was substantially expanded the following year.

In 1912, Davenport published the paper tool *par excellence* of

American eugenics, Bulletin No. 6: “The Trait Book.” The book was a list of thousands of hereditary traits, or “unit characters,” organized by a numerical code akin to the Dewey decimal system. According to Davenport’s brief introduction (the only commentary in the whole book), the Trait Book met two practical needs: (1) a standardized vocabulary for traits, and (2) an abbreviated code to make it is easier to record traits during interviews. Similar to the psychological studies discussed above, traits were distinguished according to their physical, mental, and temperamental signs. Traits were nested inside of general dispositions in a tree-like structure. For example, a fit of temper (31833) was a manifestation of hysteria (3183), which was a neurotic condition (318) located in the spinal cord and brain (31) of the nervous system (3). In this way, the Trait Book made field work more efficient and, more crucially, related bodily phenomena to hereditary dispositions. Even in the cases where a symptom was not yet proven to be hereditary, Davenport insists that “practically all” of the traits are heritable. Perhaps he meant that *nearly* all of them were, but that did not stop eugenicists from treating every trait as hereditary *in practice*.

The “practically all” claim is repeated in Bulletin No. 13: “How to Make a Eugenical Family Study,” written by Davenport and Laughlin in 1915. As the last bulletin to instruct would-be examiners or volunteers on how to complete a pedigree analysis, it is the most complete and definitive statement on the method. As the title suggests, the bulletin instructs examiners to conduct eugenic analysis at the level of the family. It begins by underscoring the vital importance of family data for the study of heredity and the cultivation of a better future: “family traits are not personal matters, they come to us from out of the population of the past, and, in so far as we have children, they become disseminated throughout the population of the future.”[48] Upon closer examination, however, the family is not the subject of eugenic diagnosis. While it is true that the “family” is the focus of pedigree analysis, this claim is superficial and, in fact, misleading if one does not understand how the family is articulated by eugenic discourse.

The family is defined as “the propositus and his immediate relatives.”[49] The propositus is an individual defined by their genealogical relation to a certain “family” and their ability to infect proximal family members with a hereditary disease. It signifies a conception of the individual that finds its essence in its potential qualities just as much as its actual qualities. The propositus occupies a liminal zone in which it affects and is affected by the bodies around it. It affects others with the threat of contagion, while it is affected by them in regard to its hereditary potential. For example, a propositus only known to have epilepsy may also be at risk of contracting (or genetically reproducing in their child) alcoholism if it is prevalent in the family's germ-plasm. This double articulation that conceives of the body as infector and infected is what drew eugenicists to treat the individual as the most fundamental unit of analysis. Although appearing as a self-contained singularity, the multiplicity of potentialities dormant in the individual expanded outwards in a web-like fashion. This point is made evident in eugenicists' idiosyncratic notion of "immediate relatives."

The term "immediate relatives" commonly refers to siblings and parents. For the eugenic examiner, it included aunts, uncles, cousins, nephews, nieces, and even in-laws! The reason for this extended conception of the family is found in the concept of "hereditary potential." Unlike Gregor Mendel who traced traits through the algebraic "length of direct descent lines," American eugenicists measured the influence of breeding qualities geometrically according to an individual's nearness of kin or connection. The child of a cousin or brother-in-law, for example, is more informative about an individual's hereditary potential than a great-grandparent. This distinction elucidates a different perspective on heredity, one that would become known as "recticular heredity." By using this new theory of heredity, eugenicists were able to harness a new form of power to target the entire social body rather than only immediate ancestors. They built on and extended the Mendelian theory of inheritance, which had direct consequences for their social and political campaigns.

Recticular Heredity

The prominence of heredity in American psychological research was not due to Dugdale or Darwin alone. Another name must be added to this list, one which was more pronounced in eugenic discourse than any other: Mendel. Gregor Johann Mendel was a nineteenth-century Augustinian friar and scientist who famously experimented with cross-breeding pea plants. In the 1860s he discovered that certain characteristics of pea plants (e.g. shape, color, height) could be used to predict the appearance of those same characteristics in the plants' offspring. Yet not all characteristics in the parent plants appeared in the offspring. After more research, Mendel concluded that some traits (like yellow color) were more likely to be reproduced than others, thus distinguishing between "dominant" and "recessive" traits. Although largely unnoticed in his own time, Mendel's paper, "Experiments in Plant Hybridization," was rediscovered in 1900 by three different European scientists unbeknownst to each other.

Most historians of eugenics cite Mendel as a crucial precursor to American eugenics. According to this claim, his laws of assortment and segregation provided the specific theory of heredity that grounded American research on eugenics. In some cases, this claim is rather benign, such as when Philippa Levine describes Mendelism as the dominant trend in biology at the time: "It was innovative ideas in biology, such as those of Mendel, that gave eugenics a firm footing in the new century."[50] On the other hand, some scholars associate Mendel with the worst abuses of eugenics. Alexandra Minna Stern, for example, argues: "During the 1920s, it was the application of Mendelism to humans [. . .] that propelled eugenic campaigns for sterilization, interracial marriage bans, and immigration restriction."[51] To understand how eugenicists applied Mendelism in their paper tools, it is first necessary to examine how Mendel's work was introduced to an American audience. By looking at how American scientists responded to the rising trend of Mendelism, one can better assess Mendel's influence and its role in social strategies for promoting national hygiene.

Mendel's work was revolutionary because it developed a mathematical basis for the transmission of hereditary traits. His probabilistic model of inheritance enabled plant and animal breeders to select for specific traits in order to increase the quality of their stock. This instrumentalization of heredity was enthusiastically embraced by breeders and scientists alike. After 1900, "Mendelism," as this view of heredity was called, was eagerly taken up in England by William Bateson, who later coined the term “genetics.” In 1902, Bateson introduced Mendel to American scientists and breeders when he and other Europeans presented papers on Mendelian inheritance at the International Conference on Plant Breeding and Hybridization in New York City. Political and economic interests, as historians Diane B. Paul and Barbara A. Kimmelman have pointed out, prompted an immediately favorable response to Mendelism from diverse groups such as private breeders and government officials.[52] This response included the idea for the creation of an association for breeders of plants and animals.[53] The American Breeders Association (ABA) was formed in 1903 and quickly became the first institution of American eugenics.[54]

At first, the ABA was primarily dedicated to plant and animal breeding. It was an open question, sometimes debated in the Association’s *American Breeders Magazine*, whether the principles of heredity could be extended to human reproduction. The problem was much less philosophical than logistical. Humans were not as amenable to selective breeding as plants were. Love, with its overwhelming power to form couples, was the constant scourge of eugenic progress because it was ignorant of good Mendelian reason. Even if selective breeding of humans was impractical, scientists sought other means of controlling reproduction.[55] By 1908, a Committee on Eugenics was formed in the ABA whose objectives were listed as follows:

> To investigate and report on heredity in the human race; to devise methods of recording the values of the blood of individuals, families, peoples and races; to emphasize the value of superior blood and the menace to society of inferior blood; and to suggest methods of improving the heredity of the family, the people, or the race.[56]

Disagreements about the abstract principles of heredity did not stop eugenicists from forging ahead with a concrete program for “breeding” better human beings. In this way, American eugenics demonstrates the inherent political and cultural stakes that scientific research in always mired in.

Within a short time, the ABA’s Committee on Eugenics inspired the 1910 establishment of the Eugenics Record Office (ERO), which became the primer institution of eugenics in the country. In the same year, the *American Breeders Magazine* was renamed the

Journal of Heredity and became the *de facto* academic journal of the American Eugenics Movement. Institutionally, the American Eugenics Movement was firmly rooted in the wave of Mendelism originating in Europe. Behind these institutions, one man is also credited with popularizing Mendelism in American biology. Known to some as the "American Mendel," his name was Charles B. Davenport.

Charles Davenport was a Harvard zoologist largely responsible for organizing the early stages of the American Eugenics Movement.[57] He had an aptitude for uniting the public and private sectors. In 1904, he received funding from philanthropist Andrew Carnegie to establish the Station for Experimental Evolution in Cold Spring Harbor, New York. The Station studied heredity in the local flora and fauna. Six years later, seeking to extend his research on heredity to humankind, Davenport opened the ERO with a generous donation from Mary Williamson Harriman, wife of railroad tycoon E. H. Harriman. In addition to organizing the institutional structures of American eugenics, Davenport published several widely-lauded studies on heredity, often drawing on Mendelian principles.

In 1907, Davenport presented a paper at the Washington Academy of Sciences entitled "Heredity and Mendel's Law." He exclaimed that Mendel's law was "the most important law of inheritance yet enunciated."[58] Nevertheless, he added several caveats in the form of counter-examples. Although first generation hybrid crosses seemed to breed true according to Mendelian principles, Davenport noticed that second generation hybrids sometimes did not. In other words, when two organisms share a purely recessive trait, their offspring should also possess that trait recessively. Yet in certain cases, such offspring would exhibit phenotypical qualities of the dominant trait. Rather than closing the book on heredity, Davenport recognized that Mendel's law opened about as many questions as it had answered.

Davenport's healthy skepticism about the law is much less apparent in his later work. His *Heredity in Relation to Eugenics* (1911), dedicated to Mary Harriman, opens by asserting the analogy of animal and human breeding:

> Recent great advances in our knowledge of heredity have revolutionized the methods of agriculturalists

> in improving domesticated plants and animals. It was early recognized that this new knowledge would have a far-reaching influence upon certain problems of human society—the problems of unsocial classes, of immigration, of population, of effectiveness, of health and vigor.[59]

The "methods of agriculturalists" are explained in depth in the second chapter, where Davenport deals extensively with the laws of heredity. There, he lays out what will become a common refrain in future papers and monographs on eugenics. This refrain involves describing Mendelian laws and ratios (often with examples of flowers or rats) and applying these rules to human heredity. Davenport barely mentions Mendel in this chapter, but proclaims that his descriptions of present and absent traits are direct analogs to Mendel's dominant and recessive traits.[60] After its publication, *Heredity in Relation to Eugenics* quickly became a cornerstone of eugenic thought. From college classrooms to research laboratories, the text had a wide audience and would solidify the connection between Mendel and American eugenics.

There is little doubt that Davenport, the chief protagonist of the American Eugenics Movement, was Mendelian, but it would be too quick to assume from this that the movement itself was Mendelian in theory and practice. In fact, around the same time that Davenport was popularizing Mendel, other eugenicists were challenging Mendel's monolithic law. They presented a competing theory of heredity that expanded the mechanism of hereditary transmission beyond sex-linked traits. This expansion was crucial, I argue, for the subjection and subjectification of every American body under the eugenic diagnostic gaze.

In spite of the rise of Mendelism after 1900, eugenics predated this particular theory of heredity. In fact, some eugenicists believed that Mendelian heredity was a superfluous concept that did not aid the aims of eugenics whatsoever. English anthropologist and father of eugenics Francis Galton, for example, had little interest in Mendel. Bateson, shortly after he introduced Mendel to American scientists, attempted to spark Galton's interest in this emerging theory of heredity. It is unknown how Bateson tried to pitch Mendel to him, but Galton's reply was unequivocal:

> we could I think gradually evolve some plan by which there would be a steady, though slow amelioration of the human breed. The aim being to increase the contribution of the more valuable classes of the population and to diminish the converse. We now want better criteria than we have of which is which. [. . .] an exact knowledge of the true principles of heredity would hardly help us in its practical solution.[61]

Galton states that Mendel's laws of heredity would not help attain the practical goal of eugenics, i.e., the biological improvement of the human race. To this end, Galton recommended social programs rather than scientific research.[62] Mendelism should not be necessarily linked to eugenic thought since Galtonian eugenics and other varieties sometimes offered competing theories of heredity. Galton's letter ends with a postscript offering Bateson his "cobs of maize" back—these are not the tools of the eugenicist.

Despite Davenport's influence on the direction of the American Eugenics Movement, another theory of heredity challenged Mendelism and eventually worked its way into eugenic diagnostic methodology. Botanist Orator F. Cook wrote several critiques of Mendelism from 1906 to 1907, specifically targeting the American Mendel himself, Charles Davenport. In "Mendelism and Other Methods of Descent," Cook took biologists, eugenicists, and other scientists to task for having a flawed theory of heredity that was not grounded in experimental knowledge. He cautioned that "the definite mathematical relations which appear in a Mendelian experiment arise from the methods of reproduction rather than the methods of inheritance."[63] In other words, Mendelian variation was the product of a restricted reproductive scheme in which breeders mated like-with-like in order to produce supposedly "pure lines." Although this model led to species change, it was not a driving factor in evolutionary progress and in fact, according to Cook, produced less fit offspring. To the contrary, Cook opined that biological diversity and "free interbreeding" established a "connected fabric of interwoven lines of descent" spurring evolution.[64]

Decoupling species change from evolution prompted Cook to look at particular members of a species and the accumulation and combination of their variations in order to find the driving force of evolution. This “intraspecific figure of descent,” as he called it, was in fact two-dimensional; it appeared not at all linear or tree-like, such as in Mendel’s experiments, but rather “recticular or net-like.”[65] Upon this recticular view of heredity, the particular associations of reproductively related intraspecies groups (i.e. families) were far greater factors in the transmission of hereditary traits than the specific traits and relative puritintraspeciy of the parents. It is this recticular view of heredity that one finds expressed in key documents and manuals of American eugenics, rather than a strictly Mendelian view.

Theories of heredity were a critical component of eugenic diagnostic methodology. They allowed a eugenicist or physician to identify the relative risk that a group held based on an individual diagnosis. How a eugenicist understood heredity influenced how far through a pedigree they believed a certain trait could spread. Can one say with any certainty that this individual’s hereditary pauperism also inheres in their son, cousin, or even brother-in-law? A theory of heredity would delimit the boundaries of such transmission. Yet eugenicists were not always consistent in how they applied these theories. As historian Elof Axel Carlson has shown, eugenicists sometimes conflated “like-for-like” and Mendelian views of heredity, which are in theory diametrically opposed.[66] Despite theoretical ambiguities, eugenicists applied a consistent notion of heredity in their diagnostic regime, especially in the technique of pedigree analysis.

All individual analysis of the propositus implied this recticular view of heredity. The propositus, first and foremost, is defined by their ability to manifest or spread disease or deformities. Even if the propositus is not symptomatic, the ability or potential to become so is always present. Accordingly, no one is normal, pure, or immune to hereditary defect. Eugenicists are unequivocal on this point: “Normal is not to be applied to persons simply because nothing is known to the contrary.”[67] In other words, the designation “normal” (commonly found on pedigree charts) only means that a propositus is not yet symptomatic. The family study is exactly the analysis of hereditary potentiality as it occurs in each individual propositus. This conceptual topology extends heredity beyond Mendelian sex-linked traits. Instead, heredity designates proximal breeding potential, which is elucidated by one’s entire pedigree, rather than solely one's mathematical combination of chromosomes with a potential partner.

Pedigree analysis was the eugenicist's response to the need to study the individual and its relation to the social group. The ERO recommended using a blank schedule called an "Individual Analysis Card" on every member of the family for the purposes of determining an individual's hereditary potential.[68] The information acquired with that card, they said, cannot be over-estimated. It provided a description of (and later a prescription for) the whole individual including their physical, mental, and temperamental constitution. With this description, examiners could use the Trait Book to identify hereditary traits. These traits could then be put in relation to proximal individuals by graphically depicting them on a pedigree chart. Although the pedigree chart represented an entire family, its aim from the start was individual diagnosis. The pedigree chart, after all, is "only the skeleton upon which to hang the flesh and blood of the real individual."[69]

In addition to the Individual Analysis Card and the Trait Book, Bulletin No. 13 mentions a few other paper tools that benefit the eugenic enterprise. As I mentioned above, the Bulletin cites the Yerkes-LaRue outline for examiners who wish to complete a thorough (auto)biography of a propositus. A similar tool developed by American psychiatrists George Amsden and August Hoch, called "Guide to the Analysis of the Personality," is likewise recommended. The ERO continued to produce blank schedules, sometimes designed to investigate special abilities. By 1915, 20,000 had been distributed, which Davenport and Laughlin thought was proof of "widespread interest" in eugenic reform.[70]

These paper tools formed the bedrock of American eugenics, both in theory and in practice. They explicated, quite literally, a new image of the body and its relation to social norms. This relation was primarily a technical one in which the body was normalized (through positive or negative measures) for the stated purpose of modifying the genetic makeup of the race and nation. I have argued that the the propositus is conceived of as an individual composed of latent traits that could lead to defect, disease, or deviance, thus upsetting the social order. From conception to completion, eugenic techniques were developed in the milieu of individual-study and not population science. It is in this sense that one must begin to study the nature and legacy of eugenics in the United States. The final sentence of Bulletin No. 13, the concluding remark on what will be the most thorough account of pedigree analysis by the ERO, clearly places the emphasis on the individual in this dynamic: "Thus the value of scientific genealogy to humanity lies above all in this that it will make it possible to utilize a knowledge of the racial characters carried by the individual for the advancement of the race."[71]

American eugenicists developed their distinctive analytical techniques by innovating on existing instruments and systematizing a diagnostic methodology. To a certain extent, they were influenced by academic trends in England. I have already shown how Galton and Pearson's biometry made its mark on American psychology and how American scientists and breeders were quick to take up Mendelian analysis after its popularization by the Englishmen Bateson and Punnett. At the time, biometry and Mendelism were seen as incongruent approaches in the scientific community. The former used the actual qualities of parents to determine those of the offspring, while the latter studied the influence of hereditary traits that could predict the potential of certain qualities in the offspring. How were these differences reconciled by eugenicists?

Historian Garland Allen has argued that the assimilation of these disparate approaches constitutes the unique character of American eugenics.[72] American eugenics was far from a unified or consistent scientific field, even if its most prominent advocates claimed that it was. Although Mendelian analysis was more common, both were thought to be acceptable methods. Allen is right to point to this dual influence, but he ultimately conflates what is truly unique about American eugenics (i.e. pedigree analysis) with Mendelism.[73] Not only does this claim overemphasize the role of Mendel in eugenic technique, but it ignores the specific history of pedigree analysis.

In spite of appeals to Mendelian ratios, the essential predictive technology of eugenics was pedigree analysis, which only resembled Mendelism in its use of recessive traits. The picture of an individual produced by pedigree analysis tells the eugenicist more about that individual's potential offspring than the Mendelian inheritance of traits within the individual's own family. The past is not as important in this prediction as the present. Eugenicists worried about one's immediate potential more than the defects of one's ancestors. The pedigree chart gives the eugenicist the evidence necessary to judge the genetic potential of an individual, i.e., whether or not they are capable of producing offspring of a certain quality.

Using paper tools such as charts, questionnaires, and blank schedules, pedigree analysis put an individual's constitution in relation to the family distribution of a given quality in order to predict potential qualities of the individual's offspring.[74] American eugenicists drew heavily on psychological, sociological, and anthropometric methods in their formalization of pedigree analysis. While some of these methods had foreign influences, they were significantly transformed within the context of American eugenics. Gould's claim that hereditarian intelligence testing was a "home-grown American product" could be said of all the analytical devices that composed pedigree analysis.[75] These instruments were the basis of eugenic diagnosis. Their results were the sufficient condition for eugenic interventions such as segregation, sterilization, and immigration restriction. Their importance cannot be understated. Undoubtedly, the paper tool legitimized the scalpel.

A New Topology of Power

The paper tools described in this chapter were designed for expressly diagnostic purposes. They identified an individual as eugenic or dysgenic by evaluating their hereditary potential through individual description, pedigree charting, and field work. This diagnostic regime was not limited to criminals and the institutionalized, but applied to all Americans. By analyzing and filtering individuals with the help of paper tools, eugenicists defined the human body primarily by its potential qualities rather than, but in addition to, its actual qualities. These potential qualities, articulated within a hereditarian matrix, took on a specifically social and political valence, allowing eugenicists to conflate illness with crime, disability with degeneration, and difference with weakness. In this way, the diagnostic construction of the eugenic body was deeply polemical and paved the way for two-dimensional discriminatory practices and policies.

Techniques like pedigree analysis put biological theories of heredity to practical use. Pedigree analysis was the favored diagnostic tool of major American eugenicists, who lauded its medical, legal, technical, and political value. This value derived in part from the presumed hereditary basis of social traits like criminality, promiscuity, asocial behavior, and poverty. The ability to detect, for example, a criminal before a crime has been committed would be of great service to society. Pedigree analysis claimed to do just this by identifying an individual's hereditary potential within the context of their near-kinship group. The hereditarian hypothesis regarding social problems multiplied the assumed benefits of predictive technology by claiming to prevent an entire life of crime rather than a single criminal act. It comes as little surprise that such technology was widely praised by politicians and lawmakers.

Pedigree analysis largely operated on the principle of "guilty by association." Even if an individual had not manifested a certain undesirable trait previously, that trait could be said to be dormant in their biological makeup based on their pedigree. An entire life of apparent health and good behavior would not absolve that individual either, since the dormant trait would likely be reproduced in their offspring. In this way, diagnostic instruments like pedigree analysis greatly enlarged the political significance of biology and extended the penal and therapeutic powers of medical and social professionals well beyond their previous boundaries.

Recticular heredity formed the basis of a new topology of power that was net-like and diffuse. This expression of power is noticeably in contrast to a rigid Mendelian analysis of discrete dominant and recessive traits among two reproductive mates. Historians of eugenics have noted this expansion of power, but generally attribute it to the vagaries of eugenic pseudo-science or the personal prejudices of eugenicists. Nancy Ordover, for example, appeals to the notion of metaphor to describe it. "Metaphor," she claims, "served to reinforce associative links between despised populations."[76] In her view, eugenic diagnosis identified people of color, LGBTQ people, and other discriminated populations as "metaphoric foils for one another," essentially treating them as equally inferior to a white, heterosexual standard for biological normalcy.[77] Since Ordover traces the penal and therapeutic eugenic interventions within these populations to a specific difference from an ideal type (i.e. white, heterosexual), those eugenic campaigns remained disconnected from each other. She asserts that this disconnection is evidence of eugenics' "hydralike nature."[78] In similar fashion, Gregory Michael Dorr argues that the racism of white elites was "transmogrified" by eugenicists into the classist and ableist attitudes that targeted poor whites and the so-called "feeble-minded."[79]

Yet there is no need to appeal to literary or magical descriptors to account for eugenicists' discriminatory practices. By taking account of the scientific theories under-girding eugenic practice, one can better understand how eugenicists' political anxieties about "the menace of the feebleminded," "the mulatto menace," and so many other scapegoats were in fact articulations of their biological theories and technical discoveries. The diagnosis of both "defective" individuals and "inferior" groups relied on a coherent theory of heredity firmly rooted in evolutionary science. This theory homogenized all socially undesirable traits within a hereditarian matrix and exaggerated their influence on the social body. The popularity and power of the American Eugenics Movement was due to this scientific foundation.

The goal of eugenics can be described with words such as improvement, efficiency, and purity, but these fail to capture the specific function of the techniques and practices that applied directly to individual bodies. In the above analysis of Partridge's individual study, the *de facto* goal of eugenics is evident: to measure, classify, and cure mental and physical abnormalities. Thus, targets of eugenic intervention often had some visible deformity, defect, or deviant behavior that signaled them as "abnormal." Early twentieth-century sciences, inspired by developments in nineteenth-century physiology, were notably fixated on creating methods for measuring variations in normal bodily functions and classifying abnormalities. Despite the final, theoretical aim of population control, which most historians of eugenics focus on, eugenics was enacted through technical practices and strategies that emphasized the individual over the population.

By closely analyzing pedigree analysis, the principal paper tool of eugenics, one finds that eugenic techniques treated the propositus as tripartite insofar as it was expressed through physical, mental, and temperament characteristics. The eugenic body is inscribed within a hereditarian framework that exceeds the limited Mendelian scope of sex-linked traits. Based on an implicitly recticular theory of heredity, eugenicists measured, assessed, classified, and diagnosed supposedly "defective" individuals.[80] This diagnostic regime sought to uncover potential qualities and traits in addition to actual ones. It expanded the domain of the natural sciences into social and political life by declaring heredity to be a national and public safety issue. While eugenicists claimed that anybody could be a danger of introducing dysgenic elements into the American germ-plasm, they predominantly fixated on persons with supposedly pathological disabilities, the poor, and others who fit the definition of "social inadequate." Against these "undesirable" individuals, eugenicists promoted hereditary traits associated with ideal forms of citizenship, such as the healthy parent, the self-sufficient laborer, and the law-abiding citizen.

Eugenics did not arise from pure fancy, but gathered and revitalized the xenophobic discourses that preceded it. In the next chapter, I examine in more depth the construction of race and disability within eugenic discourse. By taking a historical perspective on the origins of eugenics, I show that eugenics in fact departed from the core assumptions of nineteenth-century race science. At the turn of the century, the new science of American psychology, spurred by developments in eugenics, linked racial identity to a biological notion of "character," thus bringing it into immanent relation with a host of other qualities related to gender, class, nationality, and disability.

3

Characterology

From the early stages of his 2016 Presidential Campaign, Donald Trump cast repeated invectives against "Mexicans," by which he meant not just Mexicans, but Latin Americans in general. The "Mexican," in Trump's mythology, is a "rapist" and a "criminal" by nature. In this way, the "Mexican" represents a social risk to the United States, one that could rend the very fabric of civil society, according to Trump. Although this mythology is racialist (and racist), it is primarily concerned not with variations in human physiognomy (e.g. skin color), but with character. Tendencies toward sexual assault and criminality are character, not racial, traits. Trump's plan to manage this risk is to bring only the "best people" into the country. Despite his purportedly "color blind" vocabulary, many accuse Trump of blatant racism in his immigration policy. What, then, is the function of this discourse that apparently does not say what it says?

The answer to this question can be found in events that coalesced roughly a century ago. In the early twentieth century, politicians and and scientists grappled with "The Negro Problem," a popular parlance for the social issues raised by reconstruction and racial integration in post-bellum America. The end of the Civil War did not bring an end to racial animosity, but rather ushered in an emerging white middle-class that struggled to distinguish itself, economically and racially, from the newly freed slaves. Nevertheless, emancipation provoked a fear of an increase in interracial unions. "The Negro Problem" was eclipsed by "The Mulatto Problem." Miscegenation, along with waves of immigrants flooding into the country from Europe and Asia, created a panic among white elites. Between mixed race individuals who could pass as white and lighter skinned European immigrants, those interested in preserving the racial hierarchy in America sought to develop a method of classifying and stratifying racial identity that did not rely on physical characteristics alone. In this moment, they turned toward the language of "character."[1]

Character is an important and under-explored concept in eugenic discourse.[2] Character analysis was considered a paramount technique of eugenic evaluation by leading American eugenicists. By the late nineteenth century, character was a firmly rooted scientific concept that was gaining ever more attention from psychologists, eugenicists, and other professionals. In Chapter 1, I showed how early psychologists studied individual temperament with personality tests. The study of character, or characterology, was closely linked the concept of temperament. Character, however, was a conceptual unity which allowed individuals to be typed or categorized (and thus evaluated and stratified), whereas temperament was a unique admixture of emotional and behavioral tendencies in each individual.[3]

The emergent discipline of psychology heralded the characterological shift of racial attitudes at the turn of the century. Psychological techniques, as historian of science Michel Foucault argued, "project a psyche" behind individual bodies in order to evaluate them according to a norm. These normalizing techniques spread far beyond the "psy" disciplines at the beginning of the twentieth century.[4] For psychologists specifically, character performed the same function as the "psyche" that Foucault describes operating in psychiatric discourse. In the same way that physiological structures functioned in medicine, the "psyche" or character acted as an invisible, but identifiable, substrate of subjectivity in which abnormal and socially dangerous conditions (or "defects") could be identified, even if the subject was not yet symptomatic.[5] Despite being partly a response to an impasse in race science, the concept of character introduced a more insidious racialism into American politics that would intertwine race and disability in the national discourse.

Given the disparate collection of qualities, behaviors, and dispositions that character could represent, it was exploited by eugenicists and used to identify or predict all kinds of individual traits, both actual and potential. Character analysis was at once racial classification, sexual identification, economic analysis, and pathological diagnosis. Despite its multiform nature, eugenicists paradoxically insisted that it was a simple technique that could be applied with a mere glance. Thus, it came to represent both the supposed scientific rigor and the intuitive application of eugenics.

This chapter traces the history of the concept of "character" as it was redefined at the turn of the century, specifically with regard to contemporary hereditarian discourses such as eugenics. Character operated not only as a pliant and diffuse eugenic diagnostic concept, but also as a popular depiction of hereditarian assumptions about social groups. I begin by discussing the relevance of "The Mulatto Problem" for late nineteenth-century race science and modern historiographies of race. From there, I situate Francis Galton's theory of character as a response to this "Problem" and examine its influence on early American psychologists. Character, according to Galton, is the unitary manifestation of an individual's physical, mental, and temperamental qualities, both actual and potential, circumscribed by and inflected with the hereditary context of one's family, race, and nation.[6] From racial classification to psychological characterology, the concept of character eventually moved beyond scientific discourse into a popular and literary form, which I call characterization. This transition is best exemplified by the modernist writer Gertrude Stein, who had one foot in the lab and the other in the writer's attic. She carried psychological theories of character over to her experimental prose in order to evoke eugenic portraits of working class, immigrant women and women of color. Her work is indicative of the cultural immersion of eugenic anxieties expressed through the lexicon of character. This emerging discourse synthesized social and national identities with a pathological conception of heredity, resulting in a seemingly objective explanation and justification for racial stratification. I conclude the chapter by considering the legacy of this eugenic conception of character for the twenty-first century and its eventual transformation into the notion of personality. Although the term "character" has fallen out of favor, its indelible eugenic logic continues to haunt social understandings of identity and well-being.

The Limits of Nineteenth-Century Race Science and Its Historiography

Even before the publication of Darwin's *Origin of Species* in 1859, scientists were interested in the notion of race. Allan Chase, in an oft-cited study, argues that "scientific racism," the attempt to classify and stratify races using scientific methods, began in 1789 with Thomas Robert Malthus' *An Essay on the Principle of Population.*[7] According the what would become a classic refrain for fear-mongering throughout history, Malthus warned that population grew by multiples while food supplies could only increase incrementally. In the shadow of catastrophic famine, Malthus resisted any policy change that would preserve or increase the population, including vaccination and welfare. These reforms, however, focused on socioeconomic populations rather than racial groups.

Chase's historical narrative is a sign of his own research interests rather than the true origins of race science. He writes in the introduction, "Now, as in 1798, scientific racism remains color-blind and free of all racial, religious, and cultural biases."[8] At first, the "color-blindness of racism" claim appears to be misspoken (can racism ever be color-blind?), but Chase doubles down: "The basic dangers of the new scientific racism are, actually, directed against the physiological and mental health of *all* Americans—starting with that majority of white, Anglo-Saxon, Protestant (WASP) Americans."[9] Among the "full-fledged victims of scientific racism," he counts white children who have been harmed or impaired by a preventable disease because of inadequate access to vaccines, taxpayers whose money is squandered on keeping such individuals with disabilities alive for decades, and senior citizens who are "warehoused in one of the thousands of highly lucrative extermination *Lager* called nursing homes."[10] Undoubtedly some of these "full-fledged victims" have been harmed by scientific racism, but so have those of chattel slavery, imperialism, colonialism, and genocide. Chase has presented a history of scientific racism without racism.

Nevertheless, Chase catches on to something: the focus of a significant portion of race science, including eugenics, was concerned with whiteness. For instance, every major eugenic family study focused on a primarily white family. This fact raises the question: why were race scientists so concerned with their own, supposedly superior, race? Late twentieth-century scholars, like Chase and Nicole Hahn Rafter, concluded that the paramount concern in such a focus was socioeconomic class, rather than race.[11] Instead of delineating racial groups, scholars claim that these studies were used to distinguish the emerging middle and professional classes from the lower class. Yet this move sidesteps the issue. As I will show, American scientists had specifically *racial* motivations for investigating and normalizing whiteness. To understand these motivations, their work must be put into the context of nineteenth-century race science, which would encounter a critical impasse that could only be resolved by evolutionary theory.

The first groundbreaking work of modern race science was by a French aristocrat. Count Joseph Arthur de Gobineau's *An Essay on the Inequality of the Human Races* (1853) used scientific methods from various disciplines to argue that three racial group exist within the human species: white, yellow, and black. These three races were stratified and the white race placed in the superior position. In a gesture that foreshadows evolutionary race science, he contends that interbreeding between whites and the lower races produces inferior individuals. These highlights gained the attention of Americans, who used the *Essay* to justify slavery. In the mid-1800s, American physician Josiah Clark Nott, who also translated Gobineau's *Essay* into English, warned of lower intelligence, infertility, and the preponderance of disease in bi-racial individuals in his seminal anthropological work, *Types of Mankind*, co-authored with George R. Gliddon. Hence, before modern biology crafted an evolutionary account of races, race mixing was believed to be invidious to the species.

Nott's theory of racial groups, inspired by Gobineau, was known as "polygenism."[12] Polygenism, or the belief that human races have distinct biological origins, was the first unique contribution to anthropology, then called "ethnology," by American scientists. For this reason, European scientists, who were primarily monogenists, referred to polygenism as the "American School."[13] *Types of Mankind* was largely based on the work of the originator of the theory, Jean Louis Rodolphe Agassiz. In 1850, Agassiz presented the theory in an article entitled “The Diversity of Origin of the Human Races.” Like Nott, Agassiz’s defense of polygenism derived, in part at least, from personal motivations. In a letter to his mother, which was first discovered and translated by Stephen Jay Gould, Agassiz describes the moment when a black waiter reached to remove his plate. After reporting the feeling of “pity” at the physical appearance of, what was most likely, the first person of color he came across after moving to the United States, Agassiz exclaims that he can no longer doubt that “they are not of the same blood as us.”[14] An internationally renowned monogenist before emigrating, Agassiz’s personal experiences in the racially segregated United States were a significant impetus for his conversion to polygenism.

The 1850 article called for not only the study of races as species, but also for their stratification. Agassiz impelled other scientists of the “obligation to settle the relative rank among these races, the relative value of the characters peculiar to each, in a scientific point of view.”[15] Among the differential qualities between races were included ability and natural disposition. A certain race’s aptitude, in this regard, could be assessed, according to Agassiz, in terms of its relative advancement toward civilization, which was always contrasted to the ideal of civilization developed in white European nations. He believed that the critical value of a scientific analysis of racial characteristics lied in its ability to demarcate the social roles of different races and, thus, preserve social order. When these roles are upset (e.g. by universal equality or miscegenation), civilization would be destabilized and beset with disability:

> Conceive for a moment the difference it would make in future ages, for the prospect of republican institutions and our civilization generally, if instead of the manly population descended from cognate nations the United States should hereafter be inhabited by the effeminate progeny of mixed races, half indian, half negro, sprinkled with white blood. . . . I shudder from the consequences. We have already to struggle, in our progress, against the influence of universal equality, in consequence of the difficulty of preserving the acquisitions of individual eminence, the wealth of refinement and culture growing out of select associations. What would be our condition if to these difficulties were added *the far more tenacious*

> *influences of physical disability.* . . . How shall we eradicate the stigma of a lower race when its blood has once been allowed to flow freely into that of our children?[16]

Agassiz thus links race to gender and disability, scorning the "mixed races" that will spawn "effeminate" offspring with a propensity for "physical disability." Racial discrimination was expressed through sexist and ableist language that reinforced existing social hierarchies. This intersectional conception of race is essential, as I will show, for understanding the role of character in eugenic discourse.

In viewing races as different species, polygenism cast racial identity as an immutable, permanent essence that could be observed, as Agassiz emphasized, on the surface of the body. Race science, even in this early stage, had inclinations of influencing public policy. Racial differences were seen not only as inert biological facts, but also as saturated signifiers of social worth and individual potential. Scientists positioned themselves as physicians of civilization, tasked with identifying vital dangers and proscribing a treatment. Polygenism, although a short lived phenomenon, reflected dominant attitudes about race in nineteenth-century America. In 1871, the debate between monogenist and polygenists was effectively put to an end by Darwin's application of his evolutionary theory to humankind in *The Descent of Man*.

Darwinian evolution was a fundamentally monogenist doctrine that accounted for racial difference with the temporal concepts of variation and natural selection. Although Darwin argued that all humans descended from a common, distant ancestor, he believed that the vast variation between human races since then vindicated the polygenist conflation of human race with species. Evolutionary theory, however, was not a compromise between the two dominant positions in race science. Rather, it constituted a radically new way of conceiving of race. Instead of a static, essential trait that connected an individual to their ancestry, race was a dynamic, mutable set of shifting characteristics that were governed by the laws of natural selection. The introduction of the concept of change into evolutionary discourse brought with it the capacity for regeneration and degeneration. In this way, Darwinian species change was the foundation for the budding discourse of racial regeneration and improvement.

This transformation in the concept of race was neither swift nor discrete. The late nineteenth century was a period of growing pains in which American scientists struggled to fit into their new evolutionary clothes. The conclusion of the Civil War meant the end, at least superficially, of *de jure* white supremacy. In addition to the abolition of slavery, the United States was beset with an unprecedented influx of immigrants from Germany, Ireland, Italy, and Eastern Europe. Intermarriage among these groups produced offspring with a gradient of skin tones, some so light that they could pass for white. Industrialization resulted in the emergence of a new, mostly white, middle class, which sought to preserve its place in the economic and racial hierarchy. In addition to employment competition, white classes had anxiety about mixed race individuals passing for white, also known as "The Mulatto Problem." They worried, as historian Ariela J. Gross intonates, "What if people of African descent were lurking unknown in their midst, enjoying all the privileges of whiteness despite their hidden black essence?"[17] These factors led to a renewed and fervent interest in racial differences, much like immediately after the Revolutionary War when freed blacks in the Northern colonies provoked fears of "a particoloured race."[18] American race scientists began developing analytical techniques to determine the social adequacy of racial groups that accounted for imperceptible, characterological differences, the results of which could be levied in public policy debates. These events led race science in an increasingly hereditarian direction, which culminated in the anti-miscegenation and anti-immigration laws of the early twentieth century.

Despite a keen awareness of the historical formation of race, historians, sociologists, and philosophers of race have not paid sufficient attention to the link made between racial identity and character in the late nineteenth century. Historian Winthrop Jordan famously has argued that racial identity, prior to the Civil War, was determined by a One Drop Rule.[19] This view, however, does not account for the discursive transformations in racial science and politics during the late nineteenth century, especially after the emergence of Darwinism. Race has not always been understood in the static terms of blood. Conversely, the historical contingency of definitions of race does not imply that race is entirely socially constructed, as some critical race theorists have argued.[20] For instance, George A. Yancey argues that whiteness is an unstable social identity and matrix of privileges that can sometimes be applied to certain people of color (such as Asians and Latinxs).[21] These interpretations not only fail to account for the complex mechanisms of racial exclusion (which fixated on white degeneracy as much as non-white inferiority), but they underestimate or ignore the virulent ableism of turn-of-the-century social science discourse.

Crucial to the social constructionist theory of race is the concept of passing. To pass for a certain race means to take on the privileges and disadvantages of that racial identity even if one is not really of that race. Philosopher Charles W. Mills claims that the common question, "what are you *really*?", occurs when one's appearance is not sufficient to adequately classify one's race. Either the person appears to be a different race than they claim to be or their apparent racial identity is ambiguous. Mills adds that successfully passing for a different race qualifies one for legitimate membership in that racial group, since one will acquire the privileges and disadvantages of that identity.[22] This view, which reduces racial identity to physical characteristics, cannot account for the characterological turn in race discourse.

For turn-of-the-century science, these two understandings of race (hemo-determinism and social constructionism) constituted a false dilemma. It mattered less what a person *appeared as* or what a person *really was* than what a person *could be.* A person's ability became the prime target of normalizing techniques. After Darwin, race scientists adopted a more nuanced technique of racial classification, namely, character analysis. In the emerging social sciences, the correlation between racial and character traits was reversed so that character took causal priority. Hence, racial identity was thought to be the result of character and not vice versa. This argument is precisely the one that Harlem Renaissance philosopher Alain Locke makes in 1924: "Instead therefore of regarding culture as expressive of race, race by this interpretation is regarded as itself a culture product."[23] Far from a social constructionist argument, Locke believes that culture is itself the proper locus of hereditarian transmission and that race is "simply and primarily the culture-heredity."[24] The culture-heredity of a race is none other than its "peculiarly stable and stock character."[25] And yet, character analysis was not restricted to racial classification.

The concept of character was multifaceted, scalable, and utilized by numerous disciplines. Character was believed to be the coalescence of multiple facets of an individual's identity, including race, sex, class, and ability. Although the diagnostic use of character analysis was limited to individuals, it had epistemological merit for anthropologists and social psychologists when it came to studying races, classes, and nations more broadly. Locke, for example, argued that "cultures" (by which he meant hereditarian racial characters) *could and should* be graded with respect to their "relative and characteristic abilities and tendencies" toward survival and civilization-building.[26] He further underscored the paramount value of this "newer psychology of race" that provided a cultural (i.e. characterological) basis for identifying and evaluating racial progress.[27] While character analysis was adopted in numerous disciplines, psychology, as Locke rightly notes, was leading the charge.

Darwin's discovery brought with it as many questions as it did answers. In the early nineteenth century, anthropologists like Gobineau determined racial identity by physical characteristics, such as skin color. The view was made obsolete by the Darwinian argument that race was mutable and a function of heredity. Darwin's work also resolved the impasse in nineteenth-century race science created by "The Mulatto Problem." No longer emblems of sterility and extinction in the polygenist's racial hierarchy, the Darwinian paradigm portrayed mixed race individuals as living mutations of race, both decomposing old races and giving birth to new ones. These racial mutations could not be read in an individual's physiognomy. Post-evolutionary race scientists had to go deeper than the skin to establish hereditary potential. For this purpose, a myriad of new techniques emerged, of which the most prominent was characterology.

Characterizing Race

Character, present in both pre- and post-evolutionary race science, is imperative for understanding the progression from nineteenth-century race science to early twentieth-century eugenics. During this period, character became a paradigm concept for analyzing racial differences. In shifting the focus from phenotypic qualities (e.g. skin color) to genetic characteristics (e.g. hereditary traits), "characterology" was a technique for assessing an individual's potential abilities and assigning them a racial identity, regardless of skin color. Therefore, in the transitional concept of character, one finds a solution to the impasse of nineteenth-century race science, the specifically racial motivation for eugenicists' obsession with white degeneracy, and a rejoinder to the economic interpretations of this phenomenon by scholars like Chase and Rafter.

Craniometry, the science of measuring the skull, tried to establish a metric for deep-seated racial differences beyond skin color. American natural scientist Samuel George Morton is credited with pioneering it in the early nineteenth century. His *Crania Americana* (1839) argued that cranium size differed by race. After linking cranium size to natural intellectual ability, Morton concluded that Caucasians, who reportedly had the largest cranium size, were the most intelligent race. In the course of this research, Morton amassed an enviable collection of human skulls. However, his influence extended well beyond this collection. Craniometry influenced Nott and Darwin, even finding its way into *Origin of Species* to indicate the tangibility of racial differences. Across the Atlantic, Morton's work inspired French anthropologists Paul Broca and Georges Vacher de Lapouge, the latter of which was active in the French eugenics movement and helped shape Nazi racial doctrine with his *L'Aryen: Son Rôle Social* (1899).[28]

The history of craniometry is instructive because it straddles the onset of evolutionary thought and encompasses the last chapter of race science's obsession with physiognomy. Its persistence throughout the turn of the century is a testament to the racial motivations of science during this period. Yet the discoveries of craniometry were limited by its specificity; only so much can be derived from a person's cranium size. New techniques were required to find more racially-specific characteristics and to justify, beyond intellectual ability alone, a hierarchy of races. The late nineteenth century witnessed the emergence of post-evolutionary sciences and their development of analytical techniques that would identify and measure an individual's inner essence for purposes of classification and stratification.[29] Cesare Lombroso's criminology, for example, relied on physiognomy to predict future deviant behavior. In England, Galton's anthropometry used measurements of the physical body to anticipate and explain a number of outcomes, including character traits and the physical qualities of offspring. In fact, Galton was first to introduce the lexical shift from race to character, which had profound consequences for American science.

Galton first stated his theory of heredity in an article entitled "Hereditary Talent and Character" (1865) published in a popular periodical. Here, he argued that innate dispositions dictate natural ability and character. These dispositions varied by individual, but, using statistical analysis, he found that individuals shared many dispositions that were common to their family, race, and nation. Nevertheless, his discovery was greatly exaggerated. Using biographies and genealogies, Galton noted that a mere 8% of distinguished fathers beget distinguished sons. Reflecting on this figure, he announced: "Everywhere is the enormous power of hereditary influence forced on our attention."[30] One could certainly not accuse him of modesty.

This minuscule 8% was enough, Galton believed, to demand a change in reproductive practices, even if it was not valid in theory. He proposed that humans could be selectively mated to reproduce desired talents and character traits in the same way that breeders mated plants and animals for desired physical characteristics. Breeders, Galton tells his audience, are able to predict three aspects of inheritance: character, the probability that a specific trait will occur in the offspring, and the relative quantity of that trait (e.g. whether it is more "excessive" or "defective" depending on its occurrence in the parents). He wagered that by applying the breeder's "prevision" to human reproduction, society would ameliorate the quality of its members: "What an extraordinary effect might be produced on our race, if its object was to unite in marriage those who possessed the finest and most suitable natures, mental, moral, and physical!“[31]

What are the "finest and most suitable natures," though? How does the eugenicist endeavor to identify them? Galton's answer and prime metrical units are *talent* and *character*. Writing during a time and in an academic climate in which psychology as a discipline was beginning to take shape, his focus on mental qualities is not unique. In fact, drawing an analogy between mental and physical qualities was one of the earliest psychological "discoveries," insofar as it led to the conceptual birth of the "mind" in distinction to the "soul." The mind, removed from the religious, aesthetic, and moral overtones of the soul, formed a discrete substratum of consciousness that could be compartmentalized, quantified, and evaluated. Thus, it is not mental qualities as such that defines Galton's contribution, but his specifically *racial* definition of character that both reorients race science and establishes racial psychology.

For Galton, mental life is composed of only two elements: talent and character. Talent is the skilled use of a natural ability that allows a person to succeed in a particular domain. Character is the unique quiddity of each individual that articulates itself as a multiplicity of *characteristics*, each admitting degrees of quantity. Some examples given by Galton of characteristics required for the hereditary transmission of eminence are intellectual capacity, good health, love of mental work, strong purpose, and ambition. Although no direct definition is given of character more generally, Galton says that it is closely associated with "marked types of feature and of temperament."[32] Since physical features and temperament are inherited, the argument goes, so are the characteristics that compose one's character. In other words, the biological and social worth of a person (i.e. whether they possess the natural ability required for noble deeds) can be read on their face. And yet, every face is unique. How can any two be compared? The solution to this quandary is as old as civilization itself: one must use an abstract code or, in this particular case, a typology. Galton's eugenic spin on the solution will be to articulate his character typology along racial lines.

Galton presents various types of character like soldier, dreamer, and ascetic. Each one involves a set of characteristics essential to that character type. A soldier, for example, will have the characteristic of loyalty. Galton maintains that the same can be done for race:

> Still more strongly marked than these, are the typical features and characters of different races of men. The Mongolians, Jews, Negroes, Gipsies, and American Indians; severally propagate their kinds; and each kind

> differs in character and intellect, as well as in colour and shape, from the other four. They, and a vast number of other races, form a class of instances worthy of close investigation, in which peculiarities of character are invariably transmitted from the parents to the offspring.[33]

The innate tendencies of "racial character," by which is meant the set of characteristics peculiar to a particular race, are so strong that they can define the behavior of an entire continent of people. Such is the case, according to Galton, with indigenous peoples of the Americas. Despite admitting that drastic differences exist in the location, culture, and colonial situation of indigenous peoples, Galton posits that one character type exists for the "American Indian." To this type, he ascribes the characteristics of being naturally cold, melancholic, patient, taciturn, non-gregarious, patriotic, and having great personal dignity. For comparative purposes, Galton claims that the "West African Negro" has the opposite character of the "Red man" since he has "strong impulsive passions, and neither patience, reticence, nor dignity."[34] Yet Galton's examples of group character are not limited to racial groups.

As a kind of case study, Galton cites the mutation of national character produced by the colonization of the Americas. Speaking primarily of English colonists, he claims that their group character after colonization noticeably changed. The stated reason is that English emigrants were predominantly of a "restless character" (due to leaving their homeland) and, once concentrated in the American colonies, beget children of similar character. The American character he defines as "enterprising, defiant, and touchy; impatient of authority; furious politicians; very tolerant of fraud and violence; possessing much high and generous spirit, and some true religious feeling, but strongly addicted to cant."[35] Character, then, is not restricted to traditional racial categories alone.

The English emigrant example is used to illustrate the belief that the inborn disposition of an entire nation can be changed through selective breeding. If this breeding were to be done consciously through a "rigid selection" that mates only people with the best physical and moral qualities, then society as a whole would improve:

> What is true for the entire race is equally true for its varieties. If we were to select persons who were born with a type of character that we desired to intensify, - suppose it was one that approached to some ideal standard of perfection - and if we compelled marriage within the limits of the society so selected, generation after generation; there can be no doubt that the offspring would ultimately be born with the qualities we sought, as surely as if we had been breeding for physical features, and not for intellect or disposition.[36]

It is noteworthy that in this passage Galton speaks of "varieties" of the human race that contain different types of character. From the examples given throughout the article, it is clear that these varieties are scaled.

The individual, containing a unique character as a result of biological variation, is only the last and most obvious expression of character.[37] Each individual is also a part of a family, a class, a race, and a nation which is each identifiable according to particular characteristics. In this way, the rubric Galton establishes for assessing social worth or eminence is not race alone, but character, an evaluative concept that straddles all scales of group identity, including race. Insofar as race science becomes characterology, it is necessary to see the ethnic, class, and national dimensions of racial identity as co-constitutive, rather than separating them out as different "formations" of race, as historians Michael Omi and Howard Winant have done.[38]

Although Galton was English, his version of eugenics, especially with regard to characterology, had a profound impact on the American context. Galton's view foreshadowed German biologist August Weismann's germ-plasm theory, which presented the material basis for Galton's understanding of racial characters. Weismann wrote that biophors in the germ-plasm, which Galton called the "embryo," were responsible for passing down hereditary "characters," which served the role of defining the structure and appearance of a species.[39] For eugenicists, a germ-plasm was peculiar to a group identity and was not restricted to any particular scale. Thus, one could speak of a germ-plasm belonging to the Jukes family, to "American Indians" as a race, or to Americans as a national identity. This view was favored by American eugenicists, who relied on it to bolster fears of racial degeneration and national decline, the cause of which was dysgenic individual practices. This point is born out in a crucial 1914 report authored by Harry Laughlin and backed by two dozen other experts: "It now behooves society in consonance with both humanitarianism and race efficiency to provide more human means for cutting off defectives. Society must look upon germ-plasm as belonging to society and not solely to the individual who carries it."[40] By appealing to the public good, eugenicists extended their legislative and medical control over the entire population for reasons of individual, familial, racial, and national hygiene.

Beyond this scalar or recticular model of heredity, Galton's study of character also had an American correlate. Early American psychologists like those examined in Chapter 1 (Partridge, Goddard, Yerkes) developed techniques for measuring the non-tangible characteristics of an individual in order to connect them to a larger social group and to evaluate their social worth. In many cases, the explicit object of these techniques was "character," or a closely related entity such as personality, temperament, individuality, or "the self."[41] As the field of characterology began to grow, it became an increasingly favored tool of the eugenicist. By 1934, Laughlin advocated for character analysis to replace mental and literacy tests as the primary "machinery" preventing defective immigrant stocks from entering the country:

> As a rule, measures of character have been left to an individual "size-up," to recommendations and to past records. In fact, such judged evaluations, as well as the newer personality or character yard-sticks, should be brought into play in selecting immigrants who will constitute assets to the decency, honesty, altruism, courage, loyalty, initiative and energy of the nation. It is certain that in the future, selection-processes such as examinations for college entry, employment by the great industrial plants and commercial establishments, civil service employment, and many other selective processes which demand competency and loyalty, will emphasize not only the physical and mental, but also the personality or character yard-stick. In immigration-control in the interests of the future, nothing is more important than

> that the personality yard-stick be rigorously applied in all future immigration-selection.[42]

A more enthusiastic endorsement can hardly be imagined. Laughlin presents character analysis as if it were a Philosopher's Stone, transforming under-utilized bodies into efficient machines, thus unlocking and harnessing their potential. This form of analysis could be optimistically applied to every from of selection from immigration to manual labor employment. In this way, the concept of character played a pivotal role in American eugenic thought.

In 1922, Laughlin wrote that pedigree analysis was the "most satisfactory method" to accomplish the aims of eugenics.[43] His high praise for character analysis, a dozen years later, is illustrative of the direction that eugenic thought was moving. Unlike pedigree analysis which required extensive research, interviews, reports, and charts, character analysis could be done "at a glance."[44] Of course, this "at a glance" motive was also behind the construction of pedigree charts, since the ideal chart could represent all at once the hereditary makeup of an individual. Character analysis' innovation on pedigree analysis (and the reason why Laughlin privileges it in 1934) lies in its ability to transpose the pedigree chart onto the body. Character is the concrete assemblage where physiology meets pedigree, like flesh hanging on a skeleton.[45]

As a concrete assemblage, character expressed an individual's hereditary potential through their behavior and physical qualities. This hereditarian conception signaled American eugenicists' unique appropriation of and departure from nineteenth-century race science. Cathy Boeckmann, in her thorough study of the concept of character in turn-of-the-century science, literature, and self-help books, charts its outgrowth from racial discourses. She attributes this development to the increased visibility of mixed race individuals in post-Reconstruction America and the paradigm shift in science and popular consciousness initiated by evolutionary theory. Racial character, or what she sometimes tellingly calls "racial temperament," is intimately linked to bodily expression, even if it may at first seem like a renunciation of physical qualities:

> When faced with paradoxes of the visibility of race, race theorists could switch their focus from body to character and make character the operative term for

> race. As a result, the answer to the political question of what social position the black race was to take in post-Reconstruction America could be predicated on any number of grounds. For some the body was a sign of black racial inferiority, while for others it was the more or less inconsequential vehicle for racial character--a character that needed to be read for its evolutionary implications. Addressing the race problem required one to read messages from a body that could take a number of different causal or determining relationships with racial character.[46]

Boeckmann asserts, rightly I believe, that this new emphasis on character required new techniques of identification and evaluation.[47] The discourse of character, as an evaluation of a person's inner, "racial" essence based on bodily and behavioral traits, provided both the technique and justification for such an inquiry. While Boeckmann analyzes this discourse within the fields of physiognomy and phrenology, it is without a doubt this same discourse that gets integrated into the hereditary framework of eugenics at the dawn of the twentieth century.

Race, as it was thought by many scientists and policy makers, was not solely skin color, although it did manifest outwardly. Instead, "race" was redefined as the inner essence, or "character," that predetermined the social worth of its individual members insofar as it delimited natural ability.[48] This discursive transformation reconfigured the field of subjectification. Anyone could have an undesirable germ-plasm, regardless of outward appearance, although, in practice, any marker of difference from white middle-class culture was sufficient grounds for suspicion. Under these new discursive conditions, even supposedly superior white people became an object of surveillance and the target of eugenic techniques.

One can now see why the economic interpretation of eugenics by scholars like Chase and Rafter is too limited. Whites became potential targets of eugenic intervention for characterological reasons that deemed their purported social deterioration or deviancy a specifically *racial* problem and was not due to socioeconomic status alone. Poor and disabled white people were thought to harbor defective germ-plasm in the exact same way that the "inferior races" were believed to. Some eugenicists optimistically argued for breeding inferior whites with superior ones in order to improve the average of the entire white race. Most others, however, maintained that their reproductive lines had to be cut off, as in the case of Carrie Buck, a 19-year-old white woman whose sterilization was approved by the Supreme Court of the United States on account of her reported "feeblemindedness."

Despite the shift to a characterological conception of heredity and the body, eugenicists continued to sometimes adopt the rhetoric of racial difference. In Laughlin's 1934 study on immigration-control, he concludes by recommending a "white-race standard" for all future immigration to the United States. One might immediately pass over this as run-of-the-mill racism, i.e., discrimination based on skin color. Yet, upon closer reading, one finds the intricate way in which racial discourse was deployed by eugenicists. Laughlin saw immigrants first and foremost as "breeding stock" that would become a "progenitor of future American citizens."[49] This understanding is much different than the cultural stereotype of a racialized immigrant who introduces their foreign culture into the American melting-pot. What concerns Laughlin is the introduction of defective germ-plasm, since this, eugenicists believed, is the first line of defense against the degeneration of a certain American way of life. Thus, Laughlin, like the characterologists and psychologists before him, fights an invisible, not racial, enemy: defective germ-plasm. His argument for the white-race standard says as much:

> In the selection of immigration *it is not a matter of inferior or superior races; it is a matter of recruiting to the race-standards which the nation has already set.* [...] Racially, the country will be liberal if it confines all future immigration to the white race, then, within the white race, if it sets up differential numerical quotas which will admit immigrants in accordance, not with external demand, but *on the basis of American-desired influence of such racial elements on the future seed-stock of America.*[50]

Here, "racial elements" refers to the breeding qualities and hereditary potentialities that make up the American germ-plasm.

The ultimate value of those elements cannot be determined in themselves, but only in relation to the current hereditary makeup of the nation, which would indicate whether an "element" is desirable or undesirable. Although Laughlin advocated for a white-race standard on legal grounds, the biological standard for preserving national and racial hygiene was more exact and more discriminating.[51] Character analysis did not respect one's whiteness, masculinity, wealth, or ability; it scrutinized even those bodies that appeared to be "normal" for traces of defective germ-plasm. Eugenic discourse, in this way, did not divide society into white and black or wealthy and poor, but simply fit and unfit: categories that could be ascribed to any social identity dependent upon the application of existing paper tools.

By tracking the transformations in American race science through the transitional concept of character, one is able to see the specifically *racial* motivations for adopting the lexicon of characterology. During the Reconstruction era, concerns shifted away from actual, phenotypic traits and fixated instead on potential, genetic traits in order to assess the racial identity and social worth of any individual, including supposedly superior whites. Within this academic and political atmosphere, white skin was no longer thought to be a guarantee of health, intelligence, and civilized behavior. Nevertheless, scientists and policy makers doubled down on the project of racial classification and developed techniques for determining racial identity regardless of skin color. This project, largely expressed through the language of character, did not quash concerns about race, but rather linked them to other concerns over disease, deviance, and disability. This conception of character eventually found its way into American literature.

Characterization, or Automatic Writing as Paper Tool

Characterology did not remain in the ivory tower for long. Almost as quickly as it had settled down as a field of study within psychology, it was pilfered and popularized by a woman who would become one of the country's most well-known writers: Gertrude Stein. Yet it would be incorrect to credit Stein too much with this innovation, since characterology was first and foremost a literary endeavor. Her contribution consists primarily in publicizing characterological thought within a eugenic framework and integrating its techniques into experimental literature. In this section, I explore the literary aspect of characterology, its connection to automatic writing in American psychology, and Stein's migration of the technique from the laboratory to literary prose. By reworking the formal, experimental technique of automatic writing in a process of literary production, Stein introduced her readers to a psychological conception of character that was articulated in starkly eugenic terms.

Character commonly signifies the mental and ethical dispositions of an individual. It is what makes them unique and unlike anyone else. Yet one cannot help but hear the next most common definition of the word *character*: a fictional person in an artistic work. Characterology intended to scrutinize the invisible essence of an individual. This essence, however, was only rendered visible and measurable by the very technique of character analysis. Hence, the technique created that which it endeavored to describe and analyze. In this regard, characterology resembles fiction by creating that which it is tasked with examining, in the very process of examination. These parallels between characterology and the fictional depiction of characters (or, what I will call characterization) were not lost on characterologists, such as Hyppolite Taine.

One of the first theories of characterization can be found in Taine's *History of English Literature.* Published in French in 1864, it was quickly translated and widely publicized in the United States in 1871. For Taine, a national literature expressed the racial character of its people. For example, one could predict the temperament of a Frenchman by becoming familiar with how French literature depicted the world and what values it emphasized. Taine's understanding of character had a clear Lamarckian bent:

> Man, forced to accommodate himself to circumstances, contracts a temperament and a character corresponding to them; and his character, like his temperament, is so much more stable, as the external impression is made upon him by more numerous repetitions, and is transmitted to his progeny by a more ancient descent. [. . .] So that at any moment we may consider the

> character of a people as an abridgement of all its preceding actions and sensations.[52]

Taine's evidence for this hereditarian thesis was literature. A literary work, he argued, was "a transcript of contemporary habits, a manifestation of a certain kind of psyche."[53] Literary criticism was a way of accessing the "invisible," "inner man" (who was representative of a people) that lay behind the visible phenomena of behaviors and statements.[54] Taine thus compared reading a literary text to "psychology," and assigned such a task as the most important work of the contemporary critic and historian.[55]

For literary scholar Cathy Boeckmann, Taine's focus on characterization was indicative of the interweaving of scientific and literary discourses at the turn of the century:

> the confluence of scientific discourse and literary commentary that brought about the conceptual connections between character, characters, and characterization resulted from a shared and pervasive concern to represent the invisible aspects of racial character.[56]

Other scholars have argued that this relationship was distinctive of and pervasive in emerging modernist literature.[57] There has not been, however, a thorough examination of the discursive complicity between characterology and eugenic technique. Instead, characterology is often diminished to the logic of some nineteenth-century race science, such as phrenology or physiognomy.

Despite an identical lexicon, characterization was conceptually reoriented in eugenic discourse. It was not conceived as the inadvertent expression of racial identity through writing, a "writing" treated by neo-Lamarckians as the double inscription of body and literature. Rather, characterization represented a new intentional technique of identification and evaluation, which could take literature as its predecessor because its mode of description was, in part, literary. For example, George Partridge, who was discussed in Chapter 1, claimed that biographies (which are "a form of literature") "are excellent portrayals of types of human character."[58] Although he believed that purely fictional accounts would be of slightly less value, Partridge unequivocally grouped in literature with the psychological analysis of personality: "The study in detail of the work of anyone who has expressed himself freely in any artistic or literary form, is a study in personality."[59] This fundamental belief in the ability of artistic works to reveal one's inner character was operative in eugenic diagnosis. In one of the most egregious manifestations of this belief, Goddard famously diagnosed the fictional man in Jean-François Millet's painting *Man with a Hoe* (1862) with feeble-mindedness.[60]

Character was not just an ephemeral trend in the burgeoning field of psychology, but would be one of its primary concerns at the turn of the century. Harvard psychologist and historian of psychology Abraham Aaron Roback penned in 1927 an exhaustive history on the psychology of character. The volume was so large that its bibliography of over 1500 sources had to be published separately. Roback's history is evidence of the central role played by character in eugenically-oriented scientific discourse. More crucially, it is an archive of the contemporary professional opinion on characterology.[61]

Unsurprisingly, a key figure in Roback's history is the father of American psychology, William James, who is often referred to by surname alone and without citation. For a time, James was considered to be *the* psychologist:

> In every corner of the globe where psychology was known, his name was one to conjure with. Tens of thousands read *The Principles [of Psychology]* and hundreds of thousands, as college students, the one-volume *Briefer Course*. For a long time it seemed silly to remark that James was America's greatest psychologist, for in the judgment of scholars and of laymen alike, any second to him was a poor second.[62]

His work was exceedingly influential because it tapped into and synthesized the popular intellectual currents of the era. Not only was he a strong proponent of evolutionism (so popular in the United States already), but he drew inspiration from German and French psychologists, such as Hermann von Helmholtz and Théodule-Armand Ribot. Together, these early psychologists represented a school of thought known as "physiological psychology."

Physiological psychologists argued that psychical phenomena (e.g. emotion, experience, behavior) were caused by physiological processes. Believing that the nervous system was the highest order physical system that produced psychical states, these psychologists devised experiments to investigate its effect on (conscious or unconscious) mental states and traits. Of course, one mental aspect of interest in these experiments was character.[63] For James, character stemmed from habit: "sow a habit & you reap a character; sow a character and you reap a destiny."[64] Character, in turn, determined the course of a person's life and, more significantly, protected the social order from the chaos of the poor and uncivilized peoples.[65]

Character, for James, is partly unconscious and thus split between two parts of the individual. Consciousness, he argued, is not continuously present to itself. There are gaps that the subject cannot account for. A common example he uses is sleep. A person goes to sleep and wakes up without any knowledge of what had happened in-between the two waking states, even though many hours have passed. Thus, upon waking: "The two ends [of consciousness] join each other smoothly over the gap; and only the sight of our wound assures us that we must have been living through a time which for our immediate consciousness was non-existent."[66] In this way, primary consciousness was regularly interrupted by a gap known to the psychologist as the secondary consciousness, which together constituted the totality of an individual's character. Sleep, however, was not the only time when this split in consciousness occurred.

Citing experiments by French psychologists Pierre Janet and Alfred Binet, James claimed that a split in consciousness could occur when one was awake too.[67] The experiments were conducted on "hysterics" who were distracted by conversation. While distracted, the experimenter would whisper in the person's ear softly enough for the person to not lose their concentration on the conversation. The whisper was often a command to stand up or walk around the room. Reportedly, the patient would comply with the order without even being conscious of it. In one case, when the experimenter pointed out to the patient that she was now walking about the room instead of being seated, she was shocked. The patient appears, according to the psychologists, to have two personalities operating at the same time.

To further exploit this phenomenon, Janet and Binet induced their patients to write down answers to questions while distracted. A patient's arm would be able to hold a pencil and write on a piece of paper without the patient ever becoming conscious of it, at least in a primary way. The theory was that the patient was conscious of both acts, but the patient's two consciousnesses were not aware of each other. James called the part of the body that the patient could not feel the "anaesthetic" part and wrote that "*sensibility to the anaesthetic parts is also there, in the form of a secondary consciousness* entirely cut off from the primary or normal one, but susceptible of being *tapped* and made to testify to its existence in various odd ways."[68] James' contribution was to find a way of tapping into this secondary consciousness.

To *tap* a person's secondary consciousness (or what James sometimes calls "secondary personality"[69]), a new technique was developed that became known as "automatic writing."[70] Questions that could not be answered by a patient in normal conversation were whispered into their ear. Their hand would then write out the answer that the patient failed to provide on a previous occasion. The origin of the term is obvious since patients appear to write *automatically* without conscious effort. Nevertheless, James maintains that this term is a misnomer. The acts are not "automatic" in the mechanical sense because "a self presides over them, a split-off, limited and buried, but yet a fully conscious self. More than this, the buried self often comes to the surface and drives out the other self whilst the acts are performing."[71]

Through the technique of automatic writing, the psychologist can attain valuable information about the patient that was not available before. James argues that this information can be used to help cure a patient of their hysteria. Yet it can also be used to extract information about a person from their "buried self." In James' own experiences with automatic writing, he recalled a woman who was trying to remember the name of an acquaintance. She could only say the first syllable of the name, but, when distracted, her hand was able to write the entire name.[72] In this way, the secondary personality (although it was never limited to just two) held a more profound knowledge of the person than their primary personality was aware of. *Tapping* into an individual's other personalities meant deriving a better understanding of that individual, an understanding that could lead the way to a cure.[73]

James, who would eventually lose interest in experimental psychology, hired Hugo Münsterberg in 1892 to lead the Harvard Psychological Laboratory. Münsterberg was the student of German psychologist Wilhem Wundt, the father of experimental psychology and a prominent proponent of physiological psychology. James was so elated by the hire that he wrote to his brother that he had acquired the "ablest experimental psychologist in Germany."[74] Although Münsterberg was interested in automatic writing (and gave a strictly physiological explanation for it), he found acclaim in the United States through his application of psychology to other disciplines. Essentially founding the field of applied psychology, Münsterberg wrote, in both the popular press and academic publications, articles and books on industrial psychology, psychology and law, psychology and teaching, psychotherapy, and the psychology of motion pictures.[75] Münsterberg's ability to apply psychological insight and method to concrete problems outside of psychology made him the perfect advisor for one of James' other students who would go on to do the same for literature. Her name was Gertrude Stein.

Stein's close professional and personal friendship with James has been well-documented.[76] Although a more contentious point among scholars today, literary critics, psychologists, and even Stein herself argued that Stein's experiments in automatic writing directly informed her experimental literary style.[77] Regardless of whether this interpretation holds, one previously-unexplored constant endures from Stein's scientific experiments to her experimental literature. That constant is the search for a scientific description of character. Stein's search for a method of characterization was motivated by the same inspiration that dominated the history of characterology explored thus far: she desired to categorize and typify individuals according to racial character.

Stein's first set of experiments were conducted with Leon M. Solomons, a Harvard graduate student, and published with the title "Normal Motor Automatism" in the reputable *Psychological Review.*[78] Their aim was to challenge James' opinion in *The Principles of Psychology* that motor automatism only appeared in hysterical subjects. Stein and Solomons argued that "we underestimate the automatic powers of the normal subject."[79] The focus on normality was not by chance. Stein reflected three and half decades later, in regard to the context of her scientific research, that she "dislikes the abnormal" and that the "normal is so much more simply complicated and interesting."[80] Her experiment with Solomons foreshadowed a major preoccupation of early twentieth century psychology, i.e., normalizing the body.[81]

In their paper, Stein and Solomons bracket the concept of "secondary personality." Arguing that a split in consciousness is not necessarily entailed by motor automatism, at least in normal subjects, they strived to "reproduce rather the essential *elements* of the 'secondary personality.' "[82] Each element related to a tendency toward unconscious movement depending on different stimuli. These elements, they argued, appeared in normal subjects separately, whereas a hysterical person would manifest them all at once. In addition to splitting up the features of motor automatism, Stein and Solomons dismissed the notion that automatic writing revealed *unconscious* thoughts and activities, supposedly housed in another, inactive consciousness. Since "one cannot directly observe unconsciousness," they posited, it is more appropriate to speak of automatic movements as having an "extra personal character."[83]

Stein and Solomons rely on the language of characterology to express what it is that automatic writing reveals. If motor automatism is present in normal subjects, then it must not be the work of the hysterical secondary personality. Stein and Solomons address the Jamesian theory by arguing that motor automatism in a hysterical person is the result of an "irregular character," rather than a secondary personality, which "is a late development."[84] They conclude that their work with normal subjects reveals that automatic tendencies accord with previous habits:

> We have shown a general tendency, on the part of normal people, to *act*, without any express desire or conscious volition, in a manner in general accord with the *previous habits* of the person, and showing a full possession of the faculty of *memory*; and that these acts may go on just as well outside the field of consciousness.[85]

In other words, automatic tendencies in both normal and abnormal subjects are the result of character. In agreement with characterologists, Stein and Solomons state that the limits of a person's habituated tendency cannot be predicted without a "full knowledge of the *past history* of the patient," which admits a "large individual difference."[86] Stein focuses more strongly on character in her second set of experiments, which she conducted without Solomons.

Published in 1898, Stein's "Cultivated Motor Automatism; A Study of Character in its Relation to Attention" declares that it is a continuation of her work with Solomons. This time, Stein looked outside the laboratory for test subjects and enlisted 91 students from Harvard University and Radcliffe College. A larger test group would allow her to study variations in the capacity for normal automatism. A second focus of her study was "the types of character that accompany a greater or less tendency to automatic action."[87] After conducting the experiment, which was nearly identical to her work with Solomons, Stein noted that two "types" of normal subjects were evident in the data. The first type was "nervous, high-strung, very imaginative," easily aroused, and strongly and easily paid attention to something.[88] The second type, by contrast, was "decidedly of a weakish sentimental order," fatalistic, sullen, hopelessly self-conscious, and "either large, healthy, rather heavy and lacking in vigor, or they may be what we call anemic and phlegmatic."[89] Far more significant than Stein's typology is the connection it has to automatic writing.

The majority of Stein's 12-page paper is brief accounts of select experimental subjects. Apart from the typology, she offers two major conclusions. First, she argues that "habits of attention are reflexes of the complete character of the individual."[90] This conclusion extends her typology beyond the confines of her experiment on attention. The two types elucidated therein are thus not just modes of attending to automatic writing, but signs of an individual's "complete character." The second conclusion, closely connected to the first, states that "on habits of attention are dependent the different forms of degrees of automatic writing."[91] In other words, automatic writing is a metric for typifying an individual. In this way, it can be used, according to Stein, to identify and evaluate not just an individual's immediate behavior, but their past and future behavior insofar as it was and will be driven by their character.[92] Hence, automatic writing performs the function of a eugenic paper tool.[93]

Modernist scholar Tim Armstrong contends that Stein's first experiment with Solomons is the "more important" of the two. In participating in automatic writing herself, Stein developed, according to Armstrong, the stylistic tropes of her later writing, such as the "stress on the differential and on one moment divorced from another for the purposes of analysis, the eschewal of content or 'depth', the attention to the mechanism of production."[94] The precise formal equivalence of the two "experiments" (scientific and literary), however, is contested by Steven Meyer.[95] While Meyer presents a compelling argument that Stein's literary style is in fact an innovation on, not replication of, automatic writing, this issue is secondary for Stein. Stein's modernist style had a specific intention; it wished to evoke something in particular. That particular thing was character. Whereas her work in the Harvard Psychological Laboratory tried to create an experimental method of typifying characters, her experimental literature exploits the formal qualities of automatic writing in order to *characterize* an individual (e.g. Picasso in her "portrait" of him), race (e.g. German immigrants and African Americans in *Three Lives*), or nation (e.g. Americans in *The Making of Americans*). Contrary to Armstrong and Meyer's interpretations, the most palpable continuity between Stein's scientific experimentation and experimental literature is her interest in characterization.

In adopting the lexicon of character, Stein also reproduced the hereditarian preoccupations of American eugenicists. Intimations of a recticular view of character, identical to that defended by eugenicists like Galton, were evident in her scientific research. In "Cultivated Motor Automatism," Stein mentions what she believes is "an interesting fact" before presenting her experimental data. Her comment is worth quoting in full:

> A large number of my subjects were New Englanders, and the habit of self-repression, the intense self-consciousness, the morbid fear of 'letting one's self go,' that is so prominent an element in the New England character, was a constant stumbling-block. It usually took a New Englander a sitting longer to give a response than the other subjects. I could usually tell them as soon as I

> began the experiment by their resistance to my guidance. Afterwards I found that Stanley Hall, in his article on Fears, notes the fact that self-consciousness was dreaded by twenty-four boys in Cambridge, Mass., a thing unknown in Trenton or St. Paul.[96]

Stein treats what would otherwise be a curious anecdote as scientific confirmation of the scalability of character. Not only do individual characters exist, but so do group characters, specifically, in this example, regional character. The anecdote is given the status of a scientific "fact" by reference to G. Stanley Hall, the American psychologist who introduced a generation of psychologists to the experimental technique of the questionnaire. Hall was, like Stein, mentored by William James and went on to mentor some of the most influential psychologists in the American Eugenics Movement (Partridge, Goddard, Lewis Terman).[97] Stein's early fiction is an elaboration on this theme and tries to articulate, through literary means, regional, racial, and national characters.

Stein's "lifelong interest in defining character," as her most recent biographer Lucy Daniel puts it, was apparent long before her psychological research.[98] Stein dates the beginning of her aesthetic education to when she was two. She remembers seeing two oil paintings that fascinated her: Millet's *Man with a Hoe* and one by Toby Edward Rosenthal. But, as was the case with Goddard, it was the Millet painting that interested Stein the most. In fact, she bought a photograph of just that painting, thus beginning her illustrious career of art collecting. What she liked so much about the painting was its ability to capture the essence of the peasant worker in a portrait. Years later, while living in the French country, she could still remember how the portrait looked because she saw "the farmers constantly hoeing with just that kind of a hoe."[99] Portraiture was able to capture the character of a person or type of person and, although not a painter, Stein believed she could illustrate character in much the same way with words.[100]

As in the laboratory, Stein's quest to define character went far beyond an idle curiosity. She constantly used her friends and family as informal test subjects. One method was to interpret their handwriting for "indirect clues to [their] character."[101] At other times she was more invasive in her investigations, prompting Paul Bowles' quip that "I existed primarily for Gertrude Stein as a sociological exhibit."[102] The most enduring outcome of Stein's obsession with character was her four-decade relationship with Alice B. Toklas. Stein learned of Toklas through a mutual friend named Annette Rosenshine. Daniel describes their relationship in the following way:

> Stein used Annette as a typist and errand-runner, but also as a guinea pig for her theories on character. Every afternoon at four o'clock the girl would submit to intrusive enquiries about all aspects of her personality [...] She also let Stein peruse her personal correspondence. The letters from Annette's San Francisco friend Alice Toklas piqued Gertrude's interest.[103]

When Toklas arrived in Paris in 1907, Stein was there to meet her, already in possession of a complete understanding of Toklas' character and how best to appeal to it. The two would remain together until Stein's death in 1946.

Stein's personal and professional fascination with character was the driving force behind her experimental methodology, both in the laboratory and in her Parisian attic, where she began to write fiction in earnest. There is no doubt that her experience at the Harvard Psychological Laboratory informed her literary style, but the scientific-aesthetic effect of her fiction (i.e. characterization) was something she yearned to produce since she was child. With Stein, the history of characterology comes full circle when characterology, informed by the scientific discoveries of modernity, returns to literature and becomes, more precisely, characterization.[104]

Characterization is the literary form of the psychological character analysis that would be lauded by American eugenicists. Despite its translation into a different genre, characterization shared the same discursive function as eugenic paper tools. In fact, it can be credited with popularizing eugenic discourse to a far greater degree than scientific publications due to the relative popularity of novel-reading in the early twentieth century.[105] Although Stein had little to no direct contact with the American Eugenics Movement,[106] her literary work reproduced the eugenic discourse of character.[107] Her novels and stories formed a crucial juncture between eugenic research, art, and popular culture that must be situated alongside other popular eugenic campaigns such as Better Baby and Fitter Family Contests at state fairs, public exhibits at international fairs, and self-administered paper tools like family trait forms.

Eugenic Characterization in *Three Lives*

Three Lives is composed of three short stories, after the style of Flaubert's *Trois Contes*, that each focuses on the life and death of a working-class woman. Two of the stories are about German immigrants while the third centers on a young African-American woman. By foregrounding these uncommon protagonists and offering a detailed narrative of their mental universes, many scholars have lauded Stein for representing the plurality of voices that composed modern America, thus challenging hegemonic notions of a unified "Americanness." To do justice to these characters and their unique voices, she experimented with prose in order to reveal to the reader the inner character of her protagonists. Her style, as has already been noted, emphasized repetition, word play, and unusual syntax, the hallmarks of automatic writing.[108] Does this polyphonic pluralism really do justice to the flesh and blood people it intends to represent? Or does it perhaps have a more sinister intention?

In the same way that psychological characterology was aligned with racial classification, *Three Lives* has been read as an attempt to characterize the different temperaments of diverse racial and ethnic types. Richard Wright, praising Stein's depiction of African-American Vernacular English in "Melanctha," said that he could "hear the speech of [his] grandmother, who spoke a deep, pure Negro dialect."[109] From the opposite perspective, Richard Bridgman argues that characters like Melanctha are "condescending and false" and reproduced from Stein's earlier depictions of middle-class white women.[110] Today, a consensus has emerged that claims Stein intentionally appealed to racist stereotypes in order to disrupt the logic of racial classification through the form of her narrative.[111] It is indeed possible to concede that the style of *Three Lives* is more relevant than its content, since its style was so often the focus of both positive and negative reviews. Nevertheless, I argue that it is precisely this style, inspired by automatic writing, that reiterates the eugenic project of racial characterization.

The majority of the scholarship on *Three Lives* overwhelmingly focuses on “Melanctha,” but the themes that show up in that story are just as evident in the others.[112] From a characterological perspective, all three “lives” address race in some way. This theme has been underexplored in the final story, “The Gentle Lena,” which also invokes characterological assumptions about gender and disability. In many ways, these themes are even more palpable in “The Gentle Lena” than they are in “Melanctha.” For these reasons, I will focus solely on Lena’s story, but my argument can easily be applied to the two other stories.

“The Gentle Lena” tells the story of Lena Mainz, a seventeen-year-old German immigrant who was recently brought to the United States by her aunt in order to find work and, eventually, a husband. The plot revolves around identifying and matching individuals’ character. The various behavioral and physical characteristics of the characters are consistently repeated throughout the narrative as Stein explores the conflicts and alliances that occur between the different character types. As Wendy Steiner has noted, Stein’s early novels like *Three Lives* “are more accurately termed descriptions of character and character relations, and are directly connected with the concepts of character.”[113] While the story fixates on delineating the character traits of different ethnic and racial types, this quasi-scientific pursuit is dramatized through the aunt’s matchmaking of Lena with Herman Kreder and their eventual marriage.

The first line of the story describes Lena’s character: “Lena was patient, gentle, sweet and german.”[114] Here, the lowercase “german” blends in with the other adjectives as another descriptor of behavior. As the reader learns about Lena’s family members, they discover certain universal traits associated with being “german,” such as frugality, rough physical features, and a good work ethic. Lena has a “german patience” and speaks with a “german voice.”[115] Although “german”-ness is associated with behavior, it does not lack its racial dimension: “Lena was a brown and pleasant creature, brown as blonde races often have them brown, brown, not with the yellow or the red or the chocolate brown of sun burned countries, but brown with the clear color laid flat on the light toned skin.”[116]

In other words, Stein depicts Lena as a racial Other that still appears as white. Although she is deemed “brown” five times in this sentence, she does not in fact appear to be from a “sun burned country,” and actually has “clear [. . . and] light toned skin.” Lena’s imperceptible “racial” difference, both from her Italian and Irish friends as well as her German family, is made more explicit as the story progresses.

What made Lena unique, according to Stein, was her “patient, old-world ignorance, and earth made pureness of her brown, flat, soft featured face.”[117] The most important of these features was her ignorance. Lena is described as easily confused, slow, “dreamy,” “not there,” “very dull,” “sure some day to need help and to be in trouble,” a “fool,” “simple,” “dumb,” “silly,” and, most frequently, “stupid.”[118] She is often teased and berated, but is not even able to understand that she is being mistreated. The back of the book uses the term “feebleminded” to describe her.[119] The repetition of these terms in different contexts and voices throughout the narrative aids in characterizing Lena as having a mental disability. Like the specter of the “feebleminded” that fear-mongering eugenicists warned about, Lena is portrayed as unable to care for herself, economically irresponsible, and a danger (“sure to be in trouble”). Thus, in Stein’s characterization of Lena, her “racial” difference (i.e. the brownness of her clear and light skin) derives from a difference in ability, presumably a mental disability. This fact is evident when Lena’s cousins, reacting to her behavior and disposition, say that she is “little better [. . .] than a nigger.”[120] Since race and disability intersect within the discourse of character, Stein was able to portray Lena as doubly inferior.

Lena’s gentle and hardworking nature made her a perfect match for Herman Kreder, at least according their parents who arranged the marriage. Herman is described as gentle, sullen, obedient, and hard working.[121] According to literary scholar Bert Bender, Herman was matched up with Lena because he was an “equally dull-witted and reluctant German.”[122] Yet it would be wrong to take Herman’s sullenness for stupidity. Herman is never described as ignorant in any of the varied ways that Lena is. Moreover, he is aware when he is being teased, an ability that Lena lacked.[123] This key difference between Lena and Herman is further emphasized at the end of the story.

Not long after the marriage, Lena became pregnant with her first child. Herman was not very affectionate toward or interested in Lena, but he was invigorated by the prospect of becoming a father ("a new feeling [. . .] that made him feel he was strong").[124] As Herman improved, Lena degenerated. Her health and will to live were declining. She could not work and rarely washed or appropriately dressed herself. At first, she blamed the pregnancy, but the same state persisted throughout her next three pregnancies. Herman quickly and gladly took on full responsibility for their three children. As Lena was giving birth to her fourth, she grew pale and sickly. When the baby finally arrived, it was stillborn. Lena died shortly afterwards.

The conclusion of Lena's life is meant to underscore her unfitness as a mother. Lena was at first an obedient and good worker, but became sickly, lazy, and dirty when she became a mother. Stein notes that the only pleasure in Lena's life after motherhood was when she would speak to her former mistress and feel like a worker again: "Lena always liked it when Mrs. Aldrich her good mistress spoke to her kindly, and then Lena would seem to go back and feel herself to be like she was when she had been in service. But mostly Lena just lived along and was careless in her clothes, and dull, and lifeless."[125] In other words, Lena was only cut out for physical labor, not reproductive labor. Herman, who was gentle like her, differed in one key aspect: he was of normal intelligence. Thus, he was able to care for his "three good, gentle children."[126] Lena, on the other hand, fulfilled her uncle's prophecy of being "sure some day to need help and to be in trouble."

Stein's "The Gentle Lena" evokes a common eugenic diagnostic category, the "high-grade moron." Originally coined by eugenicist Henry H. Goddard, the "high-grade moron" is a "mentally deficient" person that does not appear so at first glance. They are able to be very competent manual laborers and can sometimes support themselves fully, but they are not able to handle any greater responsibility. Goddard argued that such people should be identified and then secluded to manual labor camps where they would best be able to benefit society. "The Gentle Lena" reaffirms this eugenic trope and warns of the dangers of the reproduction of the unfit.

Other scholars have written on eugenic themes in Stein's early work, including "The Gentle Lena."[127] By focusing on themes, however, these scholars have missed how the form of Stein's prose and her unique literary innovation were also indebted to and propagated eugenic diagnostic techniques, namely characterology. Inspired by her research on automatic writing, Stein translated the technique into literature. Using repetition ("brown," "stupid"), word play, and unusual syntax in "The Gentle Lena," Stein produced a eugenic characterization that united and stoked fears of people of color, people with disabilities, immigrants, and their reproduction. Not long after publishing *Three Lives*, Stein became a national celebrity, in large part due to her idiosyncratic literary style. Soon, "Stienese" was being cited or parodied in every major newspaper. To great acclaim, Stein had brought eugenic characterology out of the laboratory and into the limelight.

From Character to Personality

Historians of eugenics, like Allan Chase, have noted the parallels between anti-black racism and ableist fears of white degeneracy. Chase, however, wrongly traced their common origin back to Malthus. Gregory Michael Dorr has likened the parallel to a common "transmogrified" power asymmetry between a superior and an inferior group.[128] In a similar vein, Nancy Ordover contends that this power asymmetry constitutes a "default mechanism" whereby eugenicists sought to "distill an American phenotype" in order to distinguish who belonged from who did not.[129] These theories correctly highlight the intersectional nature of eugenic diagnostic categories, but they do not sufficiently address the concrete manifestations of such categories. Character, as it was understood in turn-of-the-century social science and popular media, was a concrete assemblage of techniques, concepts, spaces, and schematizations. The scientific and literary analysis of character was used to establish the very power asymmetry described by historians and appeared in places as diverse as Ellis Island, Stanford University, Iowa State Fairs, national newspapers, radio, novels, and the halls of Congress. By closely examining the specific techniques of eugenics, like character analysis, one is better able to understand who became targets for eugenic intervention and why.

In the late nineteenth century, "character" was a powerful new metric for analyzing an individual's social, racial, national, and economic value. Against the ideal of the white, middle class, able-bodied man, diagnosticians affixed to non-white, immigrant, feminine, and disabled bodies a multitude of dysgenic traits. By assessing groups of traits as "characters," scientists like Francis Galton produced a recticular model of heredity that delineated individuals into particular familial, regional, racial, and national characters. Characterology thus allowed eugenicists to evaluate the social worth of individuals and groups simultaneously, all while asserting the objectivity and rigor of a science based on hereditary "traits" rather than racial qualities. This way of viewing and assessing individuals eventually found its way into public discourse thanks to Gertrude Stein, who imported characterology into literature via the technique of automatic writing. Until the 1930s, character was thought to be a tell-tale sign of one's health, heredity, and identity.

From the 1930s to the 1950s, personality gradually eclipsed character as a major diagnostic category of individual analysis. Laughlin's call for "personality yard-sticks" to test the hereditary quality of incoming immigrants, quoted above, was only a symptom of this marked sea change. At stake in the difference was the uncertain influence of environment on an individual's behavior. Whereas "character" implied a settled foundation of temperamental dispositions, new research in psychology and anthropology suggested that this foundation was affected by environmental conditions over time. "Personality" was used to signify the contingent yet unique foundation of an individual's behaviors, moods, and desires. This transition was especially discernible in psychological theories of delinquency. Historian of eugenics Michael A. Rembis writes that, by the 1950s, a consensus had emerged among psychologists, law makers, social workers, and other experts that the "delinquent was made, not born."[130]

Nevertheless, the roots of hereditarianism in the social sciences were not fully eradicated. Major personality psychologists continued to maintain hereditarian beliefs about individual and racial identity. Henry A. Murray asserted that the root of an individual's contingent personality was in their cerebral physiology, which was largely determined by heredity.[131] In this way, heredity preformed and influenced the growth of personality throughout a person's life. In similar fashion, Raymond B. Cattell argued that personality traits such as various mental disabilities and the propensity toward crime were hereditary. He also claimed that physical features like race and body build were responsible for certain temperamental traits and psychological disorders related to personality.[132]

The expansion of personality study was part of a larger transition within the eugenics community that began to favor positive strategies over negative ones. By the end of the 1920s, education, birth control, and voluntary selective breeding (or assortative mating) had trumped segregation and compulsory sterilization as viable means of eugenic intervention. Despite this change of therapeutic regime, the roles of heredity, the body, and reproduction within eugenic discourse were not significantly altered. In the following chapter, I consider how the continuity of the eugenic conception of the body into the 1930s continued to influence popular representations of reproduction and disability.

To return to the question posed at the beginning of this chapter: What is the function of this discourse that apparently says what is does not say? Whether one is speaking of Donald Trump or Gertrude Stein, the answer is clear. Value judgments about racial or national identity or disability status do not necessarily need to use the language of race or disability. The lexicon of character, developed at the turn of the twentieth century, enabled one to disparage the existence of certain individuals or populations with claims that relied on accepted science and cultural beliefs. Even though Stein and Trump both used character traits (e.g. criminalistic or “stupid”) to scapegoat immigrants, argue for barring them from entering the United States, and demonize their fertility, these accusations are neither factual nor innocuous, but based on the racist and ableist prejudices inherent in eugenic discourse. The fact that two radically different people, nearly a century apart, utilized this discourse of character is a testament to eugenic discourse’s pervasiveness and invidiousness.

4

Selective Breeding

American biologists, social scientists, and psychologists crafted theories and analytical techniques in the early twentieth century to simultaneously identify, diagnose, and cure aberrant behavior and deviant dispositions. But they were not the only ones. Outside of academic journals and professional conferences, eugenic discourse spread through popular media, political rhetoric, and literature, to name only a few domains. In addition to transforming eugenics into an "academic" question, as Francis Galton once put it, eugenicists aimed to cultivate a sense of "eugenic perception" in each individual.[1] On fronts of varying size, they sponsored Fitter Family and Better Baby Contests at local fairs, planned educational exhibits like the "Eugenics Booth" at the 1915 World's Fair in San Francisco, distributed Do-It-Yourself pedigree analysis kits, published articles in popular press like *Good Housekeeping* and national newspapers, and produced propaganda films. By 1915, in the words of historian Michael A. Rembis, "eugenics had become part of Americana."[2] Although the success of these campaigns cannot be measured, the cultural proliferation of eugenic discourse is evident from the literature of the time.

Eugenics surfaced in literature in both overt and subtle ways. Whether it took the form of a parody of a eugenically-minded doctor or a veiled reference to the Eugenics Record Office, authors grappled with eugenics' popularity and, at times, apparent validity. Much of the literary scholarship on this topic focuses on overt references by authors who had clear affinities with eugenics like Charlotte Perkins Gilman.[3] Other authors applied eugenic principles in more subtle ways. Gertrude Stein, for example, exploited literature for scientific purposes by writing eugenic "character" portraits of "unfit" women. In a more radical gesture, modernist poet and novelist H.D. (Hilda Doolittle) eschewed scientific rationality and methodology altogether in order to establish a purely aesthetic theory of being well-born, which ultimately resonated with eugenic thought. From fully complicit to entirely removed, Gilman, Stein, and H.D. each bore significantly different relations to eugenic discourse. Nevertheless, they each reiterated, in one way or another, the eugenic conception of reproduction championed by contemporary science. These three writers offer a broad sampling of the ways in which eugenics and literary modernism were intertwined.

It would be wrong, however, to assume that these authors merely regurgitated eugenic dogma, especially since some, like H.D., had no direct relation to the American Eugenics Movement. Rather, these authors, like scientists themselves, existed in a cultural milieu in which the powers of science, technology, and heredity were constantly bandied about. The history of ideas is broader than the history of science; the former does not respect the disciplinary boundaries of the latter. As Georges Canguilhem has shown, science is swayed by literature just as much as the reverse.[4] The essential meaning of the process by which a scientific thesis reaches its logical conclusion, insofar as it plays out within a cultural (sometimes literary) milieu, can only be understood within that milieu. In consonance with this theory, Daylanne K. English's recent work demonstrates that eugenic science specifically was the refraction and reconfiguration of a "deep structure" of cultural and literary values.[5] Heretofore, it was possible for literary works to be suffused with eugenic thinking even if they or their authors bore no relation to eugenics proper in the form of scientific research or political action.

According to interdisciplinary scholars of eugenics like English, eugenics figured prominently in early twentieth-century American culture. Historian Christina Cogell, who has traced the influence of eugenics on industrial design in the 1930s, remarked that eugenics was a "defining ideology of modernity" and the "central pillar of modernism."[6] It was not eugenics *per se*, however, that garnered such fascination, but rather a post-industrial optimism about the power of science and technology to literally remake human life. I say "literally" because new scientific technologies at the turn of the century sought to make human life better by curing society of disease, disability, and deviance. The most prominent of such technologies was selective breeding.

Although based on ancient agrarian wisdom concerning plant and livestock breeding, the therapeutic technique of selective breeding was applied, at the turn of the century, to human reproduction. Howard Ayres presented the view thusly in 1913:

> We hear much talk about the conservation of natural resources—but all the economists have left the egg out of the omelette. The greatest natural resources [*sic*] of humankind is man himself, and we can save more money, time and energy, not to mention more important things, by breeding humans fit and sound with larger brain for the mastery of present and future problems than by any other plan of conservation whatsoever.[7]

At the same time, scientists and laypeople alike asserted that "bad" qualities could be "weeded out" of the human garden by conscientiously controlling reproduction. This control involved two separate types of eugenic intervention: positive and negative. Positive eugenics sought to increase the birth-rate of the "fit," whereas negative eugenics attempted to limit the reproduction of the "unfit." Negative eugenics is often associated with the implementation of its most extreme form, euthanasia, by the Nazis. Other methods of accomplishing the same goal, however, were all-too-common in the United States during the first half of the twentieth century, including immigration and marriage restriction, segregation, and sterilization.[8]

There is some consensus among historians of eugenics that negative eugenics fell out of favor by the 1930s, instigating a tactical reorientation favoring positive eugenics and family planning. Daniel J. Kelves first proposed the now-classic interpretation of a transition from "mainline" to "reform" eugenics occurring in the 1930s.[9] A primary outcome of this transition was the waning of support for compulsory sterilization. Laura L. Lovett and Wendy Kline further characterize this transition as an increase in concern over family planning and the management (not just prevention) of reproduction.[10] This development coincided, they argue, with new national and biological values that were placed on motherhood during a time of increased scrutiny on reproductive hygiene.

The feminine body was believed to be not just a gateway for individual children, but also for the regeneration of the race and nation. Motherhood, during this period, took on greater social and political significance. The purported transition from mainline to reform eugenics in the 1930s coincides, historians say, with a modification in the propositus as it was diagnostically and therapeutically conceived. In Kelves' version of an increasingly liberal eugenics movement, the individual replaces the race as the eugenic propositus.[11] Lovett and Kline, in a contrary but similar move, maintain that the family, and no longer the individual, becomes the site of eugenic diagnosis and intervention.[12] These narratives, however, diverge from eugenicists' fundamental beliefs about heredity, explored in Chapters 1 and 2. The recticular model of heredity adopted by eugenicists located individual, familial, racial, and national traits all within an individual's germ-plasm. In this way, the family was always already an aspect of individuality. Individual hygiene was also family hygiene within the scientific and popular discourses of the first quarter of the twentieth century. This point was nowhere more obvious than in the reproductive lives of mothers and potential parents.

In spite of a tactical reorientation favoring positive measures in the 1930s, I argue that a more profound continuity existed throughout the early to mid-twentieth century in regards to the eugenic conception of reproduction. Acknowledging this continuity is imperative to understanding the developments in eugenic discourse during the second half of the century.[13] This claim is not in contention with the dominant historiography of eugenics, but instead wishes to show how the two conceptions of the propositus that straddle the 1930s are really two perspectives on the same body. This multitudinous body was construed by eugenic discourse to contain elements or "traits" of racial and national germ-plasms within itself. Long before the emphasis on family planning and individual reproductive control in the 1930s, modernist writers articulated the eugenic body in their written work as a complex admixture of individual and group traits.

As recent scholars of eugenics have noted, the gendered conception of reproductive work at the turn of the century was intimately bound up with prejudices against race, class, age, and disability.[14] This element of eugenic discourse is vividly displayed in the modernist literature of the period, in which authors like Gilman, Stein, and H.D. qualify better breeding as that which is done by white, middle class, mature, able-bodied women. This chapter examines that literature in relation to its scientific and political context. Like many of the other popular eugenic campaigns, literature was one way in which the public learned and sometimes internalized eugenic principles. By closely investigating the dissemination of these principles, one is better able to understand the pervasive and invidious nature of eugenic discourse as well as its ability to establish asymmetrical power relations between the so-called “fit” and “unfit.” While these authors utilize race, class, and age as rubrics of fitness, they use disability as a primary marker of unfitness for parenthood.

I begin by translating eugenic motifs and references in Gilman’s *Moving the Mountain* (1911). Due to their transparent nature, these references act more like an overt argument for eugenic principles than a subtle adoption of the eugenic conception of the body and reproduction. From there, I examine Stein’s second novel, *The Making of Americans* (completed in 1911), which foregrounds the issue of breeding in regard to national, ethnic, and familial identity. Stein implicitly replicates the recticular model of heredity in order to delineate proper from improper reproduction. Finally, I excavate eugenic themes from H.D.’s *Notes on Thought and Vision* (1919) and *HERmione* (1927), which have no direct relation, in their authorship or scope, to eugenics. H.D.’s approach to rebirth comes from an aesthetic rather than scientific perspective, but nevertheless echoes eugenic concepts. Popular understandings of reproduction, like those found in the literature of the period, helped justify coercive interventions on “undesirable” bodies such as deportation, segregation, and various and sometimes brutal forms of sterilization. Although far removed from ports of entry, asylums, and operating rooms, these works legitimized such therapeutic interventions and were indicative of the multidisciplinary and cultural reach of eugenic science.

Novel as Paper Weapon

Author and sociologist Charlotte Perkins Gilman wrote popular, literary, and academic works evoking eugenic principles from a feminist perspective. In her most well-known sociological study, *Women and Economics* (1898), Gilman defended a form of "eugenic feminism," as it was called by her contemporaries,[15] that combined the project of improving the race with overturning the power asymmetry of patriarchal domesticity. As a public figure throughout the early twentieth century, Gilman used her platform to advocate for negative eugenics. In a 1932 article published in *The Nation*, she used the language of eugenicist Henry H. Goddard to propose compulsory sterilization as a path to increasing Americans' intellectual abilities:

> We are mortified at our moronic average, alarmed at the increasing numbers of those far below it. Further, we find that the unfitter they are, the more lavishly they fulfil what some religionists assure us is the divine command to increase and multiply and replenish the earth. Confronted with this difficulty, We propose to check the undesirable increase by the simple device of sterilizing the unfit. Unfortunately, when urging necessary legislation on the subject, we meet not only religious objections, but those of the unfit who are voters.[16]

More than an isolated theme, Gilman's combination of eugenics and feminism was the primary inspiration behind her novels.

Cynthia J. Davis, Gilman's latest and most comprehensive biographer, states that Gilman's fiction is a literary representation of and justification for her eugenic ideals.[17] Her trilogy of feminist utopian novels (*Moving the Mountain* (1911), *Herland* (1915), and *With Her in Ourland* (1916)) is indicative of this intention. These novels offer detailed accounts of societies run by "New Women" who have eliminated all social ills through eugenic measures such as selective breeding. Although virtually always relegated to the genre of utopian science fiction,[18] these texts fulfilled another, more essential discursive function, i.e., the dissemination of eugenic ideas.

The discursive function of Gilman's novels is most clearly seen in *Moving the Mountain*, whose narrative takes place thirty years into the future (1940). The narrator, John, is rescued by his sister, Nellie, after getting lost for thirty years on an expedition in the mountains of Tibet. During their reunion, he trips and is knocked unconsciousness. Upon awakening, John realizes he has forgotten every detail of the last thirty years and believes he is twenty-five years old, when in fact he is now fifty-five. This gives him the perfect opportunity, his sister tells him, to adjust to the new American society.

The novel takes the form of a journal, written by John, as a means of remembering all the new changes he is learning about. The lessons, however, are not about what John should do to survive in this new world, but rather about minute details of the economy, social services, transportation, and public policy. John's first lesson is about how the food system operates. All along the way, he plays the skeptic, and the rest of the cast present arguments for why such changes are not so inconceivable. In this way, the novel positions itself as a philosophical defense of realistic social reforms in the style of a Scholastic *Disputationes.* Part science-fiction, part philosophy, and part Bildungsroman, *Moving the Mountain* bends genres to immerse its protagonist, the average American citizen of 1911 or, in other words, the readers themselves, in eugenic ideas and values. The following signposts reveal that John's Bildung is, indeed, about eugenics.

This novel, unlike the others in the trilogy, remains close to the historical facts of the American Eugenics Movement. Ellis Island was already known for being a gateway for European immigrants. In Gilman's 1940 America, however, the "Reception Room" for immigrants moves from Ellis Island to Long Island. Just a year before *Moving the Mountain* was published, Long Island became a major hub of the American Eugenics Movement when Charles Davenport opened the Eugenic Records Office on its northwest shore. The Island was already home to the Carnegie Institute's Station for Experimental Evolution, which was founded with Davenport as director in 1904. Not to be without its own fictional parallel, Gilman notes that the bulk of Long Island had been used for an "experiment station in applied sociology," a clear reference to Davenport's earlier venture.

What goes on in Gilman's "Reception Room" is eerily similar to what was happening on Ellis Island. Nellie tells John that all are welcome in the new America, but they must submit to "handling," that is, hygienic and cognitive tests to ensure that anyone allowed in would contribute to raising the "grade of average humanity."[19] After John voices concern over preserving his "pure English stock" in the midst of such open borders, Nellie assures him that only the desirable are allowed in: "Idiots, hopeless ones, we don't keep any more."[20] This type of "handling" was increasingly used on Ellis Island immigrants. Inspired by Alfred Binet, Howard Andrew Knox, assistant surgeon on Ellis Island, developed numerous mathematical, logical, and moral quizzes to test immigrants for "feeble-mindedness." The quizzes were designed to assess the physical, mental, and temperamental qualities of the individual. In a 1914 report on those testing techniques, Knox boasted that the vague legal definition of "feeble-minded" allowed examiners to conservatively reject "many imbeciles."[21] Knox, like Gilman, assured his readers that these techniques were effective for protecting the American germ-plasm from degeneration and disability.

Keeping out dysgenic individuals was not enough to improve the nation's evolutionary potential. It was also necessary to control dysgenic elements within the country. For this purpose, a program of selective breeding was created. Based on a "new biological theory," women were able to select only mates that met the rigorous standard of "physical purity."[22] This standard equally applied to men and women since only "normal" women were allowed to be mothers and all "diseased men had to die bachelors."[23] Those that refused to be "weeded [. . .] out" of the gene pool were "recognized as pathological—cases for medical treatment, or perhaps surgical." Everywhere John looked, he saw the fruits of selective breeding: good bodies and shining modernities. Physical disability in particular, he noticed, was nearly eradicated: "Nowhere did I see the sagging slouch, the slow drag of foot and dull swing of arm which I had always associated with day laborers."[24] The themes of better breeding and the elimination of the unfit were continued in the sequel, *Herland.*

Herland takes place in a remote village of parthenogenic women in South America. When some European, male explorers stumble upon the village, they are educated about its history, customs, and way of life. Like the fictitious 1940 America of *Moving the Mountain*, the women in Herland practice selective breeding to produce fitter bodies and minds. They began, they tell the explorers, by "breed[ing] out, when possible, the lowest types," such as criminals and the "unfit."[25] After which they adopted positive and voluntary eugenic measures in order to make only "the best kind of people."[26] Here, more than in the previous novel, Gilman stresses the role of motherhood in founding a "new race."[27] This race is specifically identified as "white" and "of Aryan stock" in both novels.[28] The feminine body, then, is imbued with the power of regenerating the race and nation. Who better, Gilman argues throughout her novels, to determine the course of evolution than the motor of that very process, women? This sovereign subject (white, abled female) that determines the course of biological and social improvement necessarily implies an underclass of evolutionary refuse. As Asha Nadkarni explains:

> This subject is always created in contradistinction from the nation's "others;" eugenic feminism shapes national identity in negative terms, returning repeatedly phantom and figural others to define them as precisely what must be excluded in order for a eugenic feminist subject to advance the nation as a whole.[29]

In the context of these novels, the identity of these "others" is made abundantly clear: the deviant, defective, and disabled.

Gilman's fiction signifies an overt endorsement and defense of eugenic discourse, transfiguring the literary form of the novel into a veritable paper weapon. *Moving the Mountain*, in particular, is nearly indistinguishable from the official propaganda of the American Eugenics Movement.[30] Not all authors, however, so enthusiastically embraced eugenics. Nevertheless, eugenic conceptions of the body and reproduction worked its way into more benign literary works. Sometimes, even seemingly celebratory depictions of immigrants and people of color striving to have a good life in the American melting-pot could contain the incontrovertible outlines of eugenic discourse. One finds just such an example in Gertrude Stein's *The Making of Americans.*

The Breeding of Americans

Like Gilman, Gertrude Stein was a well-known writer that expressed eugenic ideas in her novels. She was not only the most prolific American modernist, but a national celebrity, in large part due to her own self-promotion. In an expansive study of popular print media on Stein throughout the first few decades of the twentieth century, Karen Leick has demonstrated that Stein was a public figure whose trademark style was easily identifiable to the average newspaper and magazine reader.[31] A "celebrity" in all senses of the word, Stein's reputation often preceded her literary acclaim.[32] Today, her work is a recurrent source of inspiration for feminist and LGBTQ authors. This cultural and political legacy makes Stein an odd choice for a study of eugenics. After all, she never pandered to racist science. Instead, in her narrative and in her writing style, she presented the plurality of voices that composed modern America, challenging hegemonic notions of a unified "Americanness." To do justice to these voices, she experimented with prose in order to reveal to the reader the inner character of her protagonists, a theme I explored in the previous chapter. At least, this is how the story is usually told.

In contrast, I argue that Stein's early literature reiterates the eugenic ideas of her time. In her early works, like *The Making of Americans*, Stein explored the breeding qualities of supposedly racially and ethnically pure "Americans" in order to trace the mechanics of hereditary transmission through individuals and families. This literary and scientific enterprise culminated in the delineation of "good" from "bad" types of breeding. "Bad" types were characteristically marked by being non-white, coming from a lower economic class, or having a hereditary "defect" or disability. For the sake of protecting the cleanliness and vitality of America, Stein repudiated the poor and persons with disabilities. Although far more removed from the American Eugenics Movement than Gilman, Stein used the recticular model of heredity that she adopted in her psychological experiments in order vilify both "defective" individuals and their families. These prejudices eventually found social and cultural expression, undoubtedly due in part to their popularization in literature during a time when novel-reading was at its height, in campaigns for compulsory sterilization laws.[33]

The Making of Americans, Stein's second and longest novel, was completed in 1911, the same year as Gilman's *Moving the Mountain.* It focuses on two generations of the Hersland family, although the narrative encompasses another family, the Dehnings, who are related by marriage, and numerous other families of friends or servants. What appears at first to be a typical nineteenth-century family epic quickly evolves into a sprawling, repetitive narrative that will become characteristic in early twentieth-century modernist texts. Similarly, the perspective of the novel is unlike that of a family epic. Instead of narrating the trials and tribulations of the Hersland family, Stein uses them as a case study for identifying and classifying the temperamental qualities that are shared between family members and passed down to new generations. Insofar as the transmission of temperamental qualities links disparate families together, the focus of the case study expands to include other families, eventually spanning the entirety of the continental United States.

For Stein, the two generations of Herslands represent an important shift in being. The first generation, born outside of America, retain their ways of being and thinking from the foreign cultures from which they emigrate. The second generation, according to Stein, are "really American" because they lack a connection to any prior way of being and are able to craft their own.[34] The theme of a "lack of connection" to the past also appears in Stein's 1935 lecture, "What is English Literature." In this lecture, Stein argues that American literature is unlike English literature because it does not seek to describe daily life in the same way that English literature had for centuries. In fact, she claims that "In America [. . .] there is not a daily everything. They do not live every day."[35] By not being consumed with daily activities, Americans can, according to Stein, focus on other tasks. Stein locates in this distinction a crucial difference between English and American literature. Due to Americans' ability to separate themselves from the mundane, American literature becomes "the disembodied way of disconnecting something from anything and anything from something."[36] This "lack of connection," rather than stymieing progress, enables Americans to (re)create their own bodies and ways of being without the weight of a national or racial past looming over them.[37] The first "American" is essentially a blank slate.

The Making of Americans, then, is more than just a family history, but also an entire "history of us," we Americans.[38] Stein's transition from writing about ethnic and racial characters in *Three Lives* to "real" Americans is significant from her scientific point-of-view. To take Americans as her next batch of literary test subjects is a logical progression that parallels the change in test subjects between Stein's two scientific experiments at the Harvard Psychological Laboratory. In the Laboratory, she began by analyzing a phenomenon (i.e. the expression of the self in automatic writing) in a specific population (i.e. patholgoically hysterical patients) in order to map traits peculiar to that population. Her second study investigated the same phenomenon in a general population of supposedly "normal" subjects (i.e. white, upperclass, college students). The transition from *Three Lives* to *The Making of Americans* mirrors this progression insofar as Stein situates her notion of "Americanness" as a default or "normal" identity unencumbered by the racial and ethnic histories that accompany immigrant narratives.[39] For Stein, Americanness signifies normality. Thus, whereas the adjectives "italian" or "irish" could reveal something about a character's temperament in *Three Lives*, the traits of members of the Hersland family, especially the "really American" second generation, must be located in the specificity of the Hersland's "family being" and not in a broader cultural or ethnic identity, which was yet to be formed in the "New World."

The appearance of "making" in the novel's title has been the topic of much speculation among scholars.[40] One way to conceive of the "making" of people is in the sense of "breeding" (as eugenicists would say) or reproduction. The ambiguity of the term opens its interpretation up to other possibilities, such as the making of American character, how Americans made a living, or the literary process of "making up" Americans. While these meanings are certainly operative in the narrative, Stein foregrounds the reproductive aspect of "making" from the very beginning of the novel. On the first page, she announces the major theme of the novel: "The old people in a new world, the new people made out of the old, that is the story that I mean to tell."[41] There is no other way to "make" people from people than through reproduction. Moreover, the similarities and differences between the two generations of Herslands are a consistent focus throughout the novel. Therefore, "making" is closely aligned with "breeding" in the novel, even though the term plays on its ambiguity.

The "new people" are not born entirely unique; they still retain some semblance of their parents. This fact is underscored in the example of Julia Dehning, who goes on to marry Alfred Hersland later in the novel. Although Julia did not look like her grandmother, "there was a little in her that made the old world not all lost to her" and would appear in "flashes of passion that lit up an older well hidden tradition."[42] Stein, like most early twentieth-century scientists, realized that physiognomy is misleading. Julia did not need to look like her grandmother to be related to her. What connects Julia to her grandmother in their shared "family being" is not the way they look, but how they think, feel, and act. In other words, temperament, as it was in *Three Lives*, is a key element linking generations. These qualities make up a "tradition" common to the two women that is not taught, but passed down through the regeneration of life:

> how should they [young people] ever learn things from older people's talking. [. . .] Yes from their fathers' and their mothers' living they can get some wisdom, yes *supply them with a tradition by your lives*, you grown men and women, and for the rest let them come to us for their teaching.[43]

Living and the regeneration of life establish the "tradition" of temperamental qualities that make a particular family unique. The novel repeatedly elaborates on this theme.

The two generations of Herslands consisted of parents David and Fanny and their three children Martha, Alfred, and David. The way in which these three children were "made" is frequently described as the "mixing up" of their parents' temperamental qualities.[44] Whether it was the parent's most domineering trait (the father's religious feeling and the mother's important feeling) or a more minute aspect of their being, that trait would be found in some proportion in each child, which Stein at times meticulously diagrams.[45] A not unfamiliar genetic algebra emerges in which, for example, a mix of (maternal) despair and (paternal) stubbornness creates an angry feeling in the child:

> In some of them the mixing of the trickling and the stubbornness inside them came to make an angry feeling that came in flashes from them, in some of them it came to make a suspicious feeling inside them that made it hard for them to trust in women or in men, and always, as I was saying, the father and the dreary mother were very variously mixed up in each one of them.[46]

Indeed, much of the novel focuses on describing these different mixtures in the Hersland children. Yet, in these detailed histories, one must not lose sight of the purpose of the narrative. It is not to tell the tale of the Herslands, but to write the "history of us." Stein breaks off the narrative at one point to remind the reader that, when it comes to the Herslands, "always they are us and we them."[47]

If the Herslands are an exemplary case study of Americanness, then what about them can be extrapolated to other Americans? The answer is not in *what* they are, but *how* they are. In other words, Stein is interested in how one becomes what one is, how one's essence is received and extrapolated within the context of one's family. The transmission of hereditary traits between the two generations provides a context for thinking about how a new American race has just begun to be made over the course of the past three generations.[48] This new race and nation, unencumbered by "old world" ethnic and racial qualities, presents a blank slate and opportunity for tracing the mechanics of hereditary transmission insofar as temperamental traits are passed down through a family. In addition to positing Americans' lack of connection to the "old world" and their hereditary fresh start, Stein stresses the purity of American identity through a global discussion of hygiene.

Hygiene plays a double role in the novel, signifying both the separation of Americanness from other national and racial identities as well as its superiority. Stein notes that Americanness is closest to cleanliness and that you can tell a "real American" by the quality of their washing.[49] This insight leads Stein into an extended meditation on the hierarchy of national hygienes, in which the French, English, Italian, and Spanish vie to be cleaner than the rest of their European compatriots. The consideration of only European nations is not an accident, since Stein notes that Europeans' white skin makes them appear naturally clean.[50] The bottom of the hygienic hierarchy is reserved for dogs and a "smelly negro woman," in that order:

> and then there is the dubious smelly negro woman who tells you about another woman who is as dirty as a dog and as ragged as a spring chicken, and yet some dogs certainly do sometimes do some washing and this woman had certainly not much sign of ever having had such a thing happening.[51]

This contest (along with its racist dehumanization of black women) might seem ironic if it were not for Stein's nostalgic and glorifying references to American cleanliness in other works as well as her lifetime fascination with national character traits.[52] These comments demonstrate that Stein relies on a restricted definition of "Americanness" that emphasizes cleanliness, purity, and whiteness. This supposed national purity allows Stein to analyze the mechanisms of hereditary transmission from a presumably neutral starting-point.

Stein names this starting-point "bottom nature" (also called "fundamental nature" and "real nature" at times). She defines bottom nature in the following way:

> The bottom to every one then is the kind of being that makes him, it makes for him the kind of thinking, the way of eating, the way of drinking, the way of loving, the way of beginning, and the way of ending, in him."[53]

As I have shown above, a person's "kind of thinking" and ways of doing things, according to Stein, are the function of their hereditary temperamental qualities. She contends that these traits are passed down from one's ancestors and "mixed up" proportionally in one's own character. The bottom nature, like Weismann's germ-plasm, is where these qualities reside and allows for their expression and transmission. Furthermore, like the germ-plasm, the "bottom nature" is used to identify and evaluate classes or "types" of people.

In its evaluative function, the bottom nature is broken up into two fundamental types: independent dependent and dependent independent. These types may not be purely present in an individual, but may both be proportionally present, leading to certain temperamental qualities such as being patient, attacking, or concentrated. An individual's type of bottom nature influences the kinds of being present in them (e.g. foolish, dull, senseless, impatient, anxious, fearful). These kinds of being and their mixture give rise to ways of feeling (e.g. anxious, impatient, important, nervous, despairing, angry, injured, fearful) that are often isomorphic to the kinds of being. In this way, by tracking a person's feelings and other temperamental or behavioral characteristics, Stein asserts that it is possible to predict their future actions and the behavioral tendencies of others like them (including their children).

Reflecting on *The Making of Americans* a decade after its publication, Stein reasserted the predictive model found within the novel. After linking her psychological experiments on "character" to the vocabulary of the "bottom nature," she explains her diagnostic approach:

> I then began again to think about the bottom nature in people, I began to get enormously interested in hearing how everybody said the same thing over and over again with infinite variations but over and over again until finally *if you listened with great intensity you could hear it rise and fall and tell all that that there was inside them*, not so much by the actual words they said or the thoughts they had but the movement of their thoughts and words endlessly the same and endlessly different.[54]

By tracking the "infinite variations" of an individual's repeated expressions, Stein believed she could identify "all that there was inside them." *The Making of Americans* engages the reader in such a task by having them hear the characters say the same thing over and over again. These repetitions, the same but slightly different each time, initiate a process that slowly reveals the characters' bottom natures. By typifying these bottom natures and searching for similar repetitions in others, Stein wished to "describe every individual human being that could possibly exist."[55] The project, however, was not limited to description and prediction. Like eugenicists of her time, Stein wished to establish principles for selective breeding.

From Stein's early characterizations of ethnic minorities to her "history of us," a therapeutic urge underlaid her obsession with diagnosis. Therapeutic intervention was the "passion" driving Stein's early research and literary work. She reflects, "this passion for knowing the basis of existence in each one was in me to help them change themselves to become what they should become."[56] This comment begs the question, what should one become? Perhaps one cannot help becoming what one inherently is, as Stein asserts on the first page of the novel: "It is hard living down the tempers we are born with."[57] There is certainly something (e.g. the bottom nature or heredity) that compels individuals in this way. However, rather than outline ideal tempers that anyone can strive for, Stein admonishes the dangerous and "degraded" temperaments peculiar to certain social groups. Thus, her therapeutic imperative, I argue below, is to become what you are by protecting yourself from the dysgenic elements that you are not.

The protagonists of *The Making of Americans* are all in the process of becoming American. Americanness, however, is fledgling. Its bottom nature, or what Stein also calls its "vital singularity," is not yet settled; it is an ongoing project.[58] As a matter of fact, David Hersland cannot be considered "really American" because the singularities of the old world are still "stamped on him."[59] Using the language of biology and reproduction, Stein calls for the making of a "strain of singularity:"

> Now singularity that is neither crazy, sporty, faddish, or a fashion, or low class with distinction, such a singularity, I say, we have not made enough of yet so that any other one can really know it, it is as yet an unknown product with us. [. . .] Custom, passion, and a feel for mother earth are needed to *breed* vital singularity in any man, and alas, how poor we are in all these three.[60]

The singularity missing from American identity is one that is based on custom (like the "tradition" that binds Julia Dehning to her grandmother), passion (as in Stein's passion for knowledge of one's essence), and a feel for mother earth (i.e. the nature of breeding). Against these firm characteristics, a singularity that is sporty or faddish (i.e. ephemeral) cannot serve as a basis for proper "breed[ing]." In this passage, Stein links her diagnostic project of charting types of hereditary temperament in individuals and families to a therapeutic imperative to “breed” a stable, vital, American singularity.

A “danger,” however, threatens the breeding of Americans; that danger is the “mixing” or inter-breeding, not just of different races, but of supposedly defective individuals with purportedly pure ones. This danger does not only threaten the purity of middle class American identity, but also presumably impoverishes (and thus, as I will show, disables) the individual. Stein warns middle class women that a “fervor for diversity” can lead to danger:

> Then comes the danger of being mixed by it [an element foreign to one’s own “singularity”] so that no one just seeing you can know it, and they take you for the lowest, those who are simply poor or because they have no other way to do it. Surely no young person with any kind of middle class tradition will ever do so, will ever put themselves in the way of such danger, of getting so that no one can tell by just looking that they are not like them who by their nature are always in an ordinary undistinguished degradation.[61]

Diversity, through hereditary “mixing,” threatens middle class women with a danger that no young person would want to encounter. It muddies their “vital singularity,” which can only thrive, as Stein notes in the quote above, through *breeding.* This breeding must be selective, according to Stein, and restrict the “poor,” who are not just economically disadvantaged in the novel but also portrayed as disabled and defective.[62] Their “ordinary,” “undistinguished,” and “mixed” nature threatens the vital “singularity” or purity of Americanness.

In the novel, the degraded poor are constantly lurking at the fringes, both figuratively and spatially. As is often recited, the poor of the town of Gossols live in small houses huddled around the outskirts of the Herslands’ ten-acre estate. The problems of servants or the poor are frequently described as failures of their existence or defects in their being. One anonymous poor man is described as not having “in him any real existing,” but who becomes a “male being” only when he is acknowledged by David Hersland, who treats him as a servant.[63] Specific animosity is reserved for the servants of the Herslands, some of whom are stricken with “servant girl being.” This kind of being appears in young, female servants and is exemplified, according to Stein, by dishonesty, laziness, irresponsibility, immaturity, deception, and a tendency toward criminal acts.[64] Madeleine Wyman was just such a “grimy scared little girl” who had to be “sent away” eventually by Mrs. Hersland.[65] Another Hersland servant, Mary Maxworthing, accidentally gets pregnant. After an uncomfortable experience with a doctor, she does not wish to see one again, even after developing complications in her pregnancy. Mary ultimately has a miscarriage and Stein locates the fault in Mary’s being: “All that happened to her was from the impatient being in her. Impatient being was the stupid being in her.”[66] Stein presents these stories as if a poor person’s inherent traits, more than any other factor, have led to their tragedy.

By locating behavioral traits like laziness, stupidity, and criminality in the servant’s heredity, Stein reiterates the eugenic (and *a fortiori* ableist) prejudices of her time. These depictions of servant girls and women run parallel to *Three Lives*, where three working women meet tragic ends because of some fundamental character trait. Literary scholar George B. Moore has asserted that the poor’s “simplified natures” in *The Making of Americans* form a background with which Stein contrasts middle class existence. This passive role that he attributes to the poor is undercut, however, by the narrator’s persistent paranoia and vehemence regarding the “danger” they represent. The “danger” of the working class, poor, and persons with disabilities exists, quite literally, on the same level as the Herslands (not as a background) and plays a crucial role in whether the white, middle class’ vital singularity is regenerated or degenerated.[67]

Without regard for its quasi-scientific motivations, recent commentators have praised the cultural diversity and formal innovation of *The Making of Americans*. Joshua L. Miller argues that Stein subverts traditional English in order to make it unrecognizable, though intelligible, to native speakers. This foreignization of the familiar is intended, according to Miller, to highlight the precarious foundations of nativist discourse on American identity. Stein’s language first sounds like an immigrant tongue, but is rather a “generically immigrant-inflected speech” that relies on the English language alone.[68] Stein's inclusion of immigrant-styled speech and characters in this novel has led Sarah Wilson to call it the "paradigmatic melting-pot text."[69] Like Miller, Wilson posits that Stein dismantles the form and content of conventional narrative in order to champion immigrants and domestic laborers.

The key problem with these readings of Stein is that they confuse attention with admiration. Stein's early work is closely linked (according to her and her readers) with her psychological research. Her texts produced a specific discursive effect that is at stark odds with the culturally inclusive Stein marketed today.[70] Moreover, the amplification of immigrant voices during the early twentieth century was not always innocuous. Immigrant speech was used as evidence to condemn, stigmatize, and deport "non-Americans." Stein herself supported strict immigrant restriction along racial lines, once saying, "There is no reason why we should not select our immigrants with greater care, nor why we should not bar certain peoples and preserve the color line."[71] While Stein never speaks this plainly in her literary texts, she consistently represents non-white or mentally "defective" characters as unfit. Ultimately, commentators like Miller and Wilson fail to sufficiently account for the historical and personal context in which Stein writes.

Other scholars have pointed to a similar complicity between Stein's literature and eugenics. Daylanne K. English, for instance, dedicates a superb chapter to Gertrude Stein in her *Unnatural Selections*. Although I mostly agree with English's conclusions, two major differences exist between our accounts. First, English focuses primarily on themes of gynecology and midwifery in *Three Lives*, whereas I will examine the theme of reproduction more broadly in *The Making of Americans*. Second, despite recognizing that eugenics "engaged forms of identity other than race," English restricts her analysis to race, class, gender, and sexuality, leaving out the ubiquitously absent term of disability.[72] My reading of Stein has sought to rectify this omission by highlighting the overlap of disability and "degraded" nature that exists in Stein's early work.

Some scholars, like Steven Meyer, attempt to redeem Stein in the end by arguing that throughout the long composition process of *The Making of Americans*, her thinking became less biologically deterministic.[73] From beginning to end, however, Stein maintains a hereditary link between family and individual reproduction.[74] In the concluding chapter, she asserts that children take up the same "doing" and "being" peculiar to their family:

> There are some families and any one can be married in them and some in them are not married and some in them are married and any one of them almost any one of them can have some children and some of them have some children and some of them do not have children and some of them do something, do anything again. There are some families and some of them do again and again do such a thing do being such a one, do being such a family of them. There are some families and some in such of them are ones having been doing such a thing being such a family of them again and then not again. There are some families and any one of them can almost remember having been doing being such a family again. There are families and some in such of them are completely doing having been a daughter and a son in such a family of them. There are families and some of them are being such a one and some in them can be being such ones and some in them do it again do again and again being such ones.[75]

Lest one think that these commonalities are the result of knowledge passed down from the parents, Stein rejoins that the transmission takes place entirely in the regeneration of life without the individual's awareness:

> Any one in any family living can come to be one not completely mentioning something. Every one in any family living can come to be one not completely mentioning everything. Every one in any family living can come to be one not completely hearing every one mentioning anything. Every one in any family living can be one completely remembering that any family living is existing. Any one in any family living can be one beginning not remembering that any family living is existing.[76]

The unity of family living not only defines the commonality of certain traits distributed throughout the family members, but also signals their similar way of doing things, which is deemed "natural" for the family:

> Some living in family living are doing something and are coming again and again to be one doing that thing. Some living in family living have been doing something and have been coming again and again to do that thing. How it is done the thing some one is doing in family living is a thing that every one in that family living is knowing. How it is done and how it is done again and again the thing that is done again and again, done by some one in some family living is a thing that every one in that family living is knowing. [. . .] Some doing the thing that is done and done by them in a family living are completely doing that thing in the way it is natural for them to do that thing.[77]

Conclusively, this "natural" way of being and doing that is common to all family members defines the family's peculiar way of existing, thus attributing to it a profound ontological value: "The way of doing what is done and one in a family living is a way that a family living is needing being one in a way existing."[78] In this way, even at the very end of the novel, Stein maintains her original hereditarian thesis that claimed individuals were expressions of their family traits. Tanya Clement's recent distant reading of the novel using digital methodologies has reached the same conclusion, surmising that the style of the latter half accomplishes the tasks laid out in the first half: the description of an American singularity and classification of its various individuals.[79]

In the social Darwinist climate of early twentieth-century American society, reproduction had a deeply social and political value. Stein's novel faithfully reproduces the eugenic quotation marks embedded in this period's racial, national, and medical discourses. It established a hereditarian basis for temperamental and behavioral traits. At the same time, it sought to distinguish "good" traits from "bad" ones and, thus, delimit the boundaries of appropriate breeding. Whether one was worthy of their reproductive capacity, in Stein's view, depended largely on their race, class, and ability. In Stein's warnings about the "danger" of reproductively "mixing" with those of the "ordinary undistinguished degradation," she reiterated and legitimated the rationale of campaigns seeking to segregate, deport, or sterilize the "unfit." Thus, *The Making of Americans* appears as both a diagnosis of Americanness and a therapeutic alert about the agents (primarily the poor and persons with suspected disabilities) of contamination. Many scholars have lauded the novel for its contribution to a new American modernist literature, but few have noted how closely this project was connected to the attempt to delineate a new American race.[80]

H.D.'s Aesthetic Ableism

The first two authors considered in this chapter produced radically different literary texts, both in style and story. Nevertheless, they had one significant common experience: they were both trained in the social sciences. Stein, as I explained in the previous chapter, was a published researcher in psychology; Gilman wrote the well-received sociological study *Women and Economics*. Despite being popular authors as well, it can be argued that their incorporation of eugenic discourse in their literary work was a peculiarly scientific influence. Such was not the case with Hilda Doolittle, commonly referred to by her *nom de plume* H.D., a modernist poet and novelist who was writing during the same period. H.D. specifically forswore scientific rationality in favor of a purely aesthetic explanation of the self. Despite no affiliation with the American Eugenics Movement, H.D.'s aesthetic manifesto and semi-autobiographical fiction faithfully reiterate the eugenic prejudices of her time.

A year before beginning her "Madrigal cycle" of semi-autobiographical novels, H.D. composed her aesthetic manifesto entitled *Notes on Thought and Vision* (1919). A consensus has emerged among literary scholars that the text is a deeply autobiographical and therapeutic response to an onslaught of traumatic experiences that occurred in the years leading up to its composition.[81] Around the same time, H.D. had several paranormal visions of energies or streams interacting with her body. One vision notably involved a jellyfish, which would become a central figure in *Notes*.[82]

Additionally, this period marked H.D.'s brief friendship with British sexologist Havelock Ellis, who also happened to be vice-president of the Eugenics Education Society.[83] These circumstances are frequently used to explain the content of *Notes*, but they cannot account for the entire picture. Beyond its autobiographical tropes, *Notes* was a timely cultural text that integrated eugenic anxieties about disability into an emerging modernist aesthetic.

The chief concern of *Notes* is "the mental process that is the complement of the life process."[84] Yet it is clear from the very beginning that the mental process H.D. is interested in is not merely the intellect, but also a more profound state of consciousness that she terms the "over-mind." While more profound, the over-mind is neither a more abstract nor honest form of intuition, nor is it cultural or absolute knowledge. The over-mind is like a "cap of consciousness over my head" that is accessible to all and connects everyone.[85] When one visualizes the over-mind, one finds it located in the body, specifically in the genitals ("the love-region") or as a fetus.[86] As I intend to show, H.D. identifies the over-mind with a superior form of intuition that is intimately connected to the language of reproduction.

H.D. asserts that each individual may have a unique way of accessing the over-mind, but the experience that connects the two universally begins with sexual enjoyment.[87] Great art arouses sexual pleasure in a creative process that brings one beyond oneself, that allows one to give birth to a new self. This "spiritual birth," which is similar to biological birth, allows one to be born again "not as a child but as the very first *germs* that grow into a child."[88] That is, the benefactor of this transmutation is not another living being, nor even a fully-formed child, but the seed from which the new world will emerge. H.D. thus attributes "metaphysical dimensions" (to borrow a phrase from Donna Hollenberg) to reproduction.[89] In this way, it is not biological reproduction *per se* that H.D. is concerned with, but a higher order reproduction in which the self begets a newer and better self. Contrary to scientific explanations of biological reproduction, this "metaphysical" or "spiritual" rebirth can only be understood aesthetically.

Spiritual rebirth first depends on a kind of self-knowledge, a knowledge of one's potential, that is acquired through the sexual-spiritual experience. Not everyone, however, is capable of this self-knowledge. One's access to the over-mind requires constant development of body and mind as well as maintaining their balance. The sexual pleasure that enables a body to become spiritually reborn is only available to those who have a "normal healthy body."[90] H.D. notes that if certain great authors like Rabelais or Montaigne do not provoke this experience in you, then "there is something wrong with you physically."[91] A body that cannot keep pace with the mind is nothing more than, in H.D.'s words, a "fatty-degeneracy."[92] More significantly, failure to develop along such "natural physical lines, cripples and dwarfs the being."[93] A "crippled" being is not sufficient to access the over-mind, and H.D. emphatically stresses numerous times that a "normal healthy body" is a prerequisite.[94] In this regard, disability, for H.D., transcends mere physical impairment and becomes a metaphysical defect. For aesthetic and not scientific reasons, H.D. situates disability as an obstacle to an improved rebirth.

Literary scholars frequently discuss the theme of rebirth in *Notes*, but nearly always ignore the equally common theme of disability. Such omission seems to be the result of the autobiographical interpretation, since H.D. dealt with a stillbirth in 1915 and had a successful birth in the same year in which she wrote *Notes*, but did not have any known disabilities. Pappas, the only scholar who even addresses the theme, argues that H.D.'s use of "medical and hereditary jargon" puts into question the fundamental assumptions of contemporary science (e.g. eugenics).[95] Her reasoning is that H.D. associates the over-mind experience with then-common pathological symptoms of mental disability, namely blurred vision and nervous exhaustion.[96] By showing that these symptoms emerge as a result of the superior functioning of the body, Pappas insists that H.D. is challenging their status as signs of disability. However, this claim reasserts the ableist presuppositions of the contemporary sciences that H.D. was presumably putting into question. Rather than accept the possibility of disability, Pappas merely reiterates H.D.'s original principle: no disability in rebirth. She does not in fact question or explain H.D.'s marginalization of "physically wrong" bodies or their exclusion from over-mind consciousness.

To eliminate disability in rebirth, H.D. contends that one must exercise control over the means of spiritual rebirth: the body. Although over-mind consciousness begins as an intellectual encounter with art, once accessed, the "chief concern [of man] automatically becomes his body."[97] Accompanying over-mind awareness is the realization that a "seed" or "germ" exists in the body and must be protected and cultivated. In this way, the aesthetic experience does not point to lofty values or transcendent forms, but points inward to the biological life process. The reason for this renewed interest in the body is that the body becomes the locus of not just germinal life, but spiritual life as well ("the spirit, we realise, is a seed").[98] As such, the body acts as a conduit to a higher order being.

Like Stein, H.D. warns of dysgenic elements that can interfere with the body's connection to a higher order, with the reproduction of this "seed." The body-as-conduit must be maintained through a negative process: "He cannot force his spirit to grow, but he can retard its growth. [...] He can retard its growth by neglect of his body." This neglect, which risks making the body abnormal and unhealthy, implies a transgression of nature: "the body of man as the body of nature is the ground into which the seed or spirit is cast." Here, H.D. once again draws a parallel between nature and spirit, aesthetic awakening and biological reproduction. Although she remains completely in the aesthetic realm, her notion of rebirth recapitulates the eugenic principles of improvement and normalization. As for the hopeless ones, H.D. advises that "every [normal] man can till the field, can clear weeds from about the stems of flowers."[99] She repeats this "weeding out" metaphor in *HERmione* (1927), one of her semi-autobiographical novels.

In its first few pages of *HERmione*, the reader finds the first iteration of what will become an oft-repeated phrase: "Trees are in people. People are in trees."[100] Long before the advent of eugenics, the tree had been a symbol of genealogy (in part due to the tree-like structure of a genealogical chart) and, by extension, heredity (as in the Medieval proverb, "the apple does not fall far from the tree"). H.D. plays on this metaphor to make several claims about the hereditary nature of identity. After lamenting that her family has been "whittled away from Europe," the narrator of the novel, Her Gart, meditates on the nature of trees:

> by one leaf you may judge the contour of a great tree, whether it be oak, or beech or chestnut. One

> conversation can give clue to the whole insistencies of a forest; analyse it and you will find whether the tract of oak wood may or may not, at some specific later date, be blighted. [...] Here a patch of brown may show the invidious canker or here some sodden bubble under the living texture may foretell a water logged anaemia. One conversation in a sodden jungle (her yet unformulated consciousness and her consciousness of America) gave her a clue to a new race and a new revaluation of the forest. The jungle must be weeded out surely . . . but the soil was ripe for a new sort of forestation.[101]

In this passage, Her uses the metaphor of the forest to process her family's recent move to America. The trees, like people, can have deep-seated defects that make them rotten at the roots, which clearly invokes a notion of heredity. Believing her European family has good roots, Her worries about them being successfully transplanted into the "sodden jungle" of America. A successful transplant would mean the birth of a "new race" and a "new sort of forestation." For that to happen, however, "The jungle must be weeded out surely." As in *Notes*, the process of formulating one's consciousness is a negative one: eliminate the "blighted" elements in order to preserve the healthy roots. This eugenic application of the tree metaphor conjures up the most famous symbol of the American Eugenics Movement, an enormous tree with its trunk labeled "eugenics" and its deep roots named after various scientific disciplines and social domains.

Literary scholarship on *HERmione* has drawn attention to the novel's Eurocentrism as well as its racist and classist descriptions of supporting characters. Andrew Lawson argues that Her "embraces the language of eugenics," which is a "discourse of 'race' that is, at the same time, an assertion of class privilege."[102] Similar to the scholarship on *Notes*, interpretations of *HERmione* overemphasize the social dynamics of race and class at the expense of the novel's portrayal of disability. In a subtler tone than in *Notes*, H.D. expresses anxiety over the hereditary quality of individuals with disabilities. This anxiety is primarily displayed in Her's relationship with her sister-in-law, Minnie. Minnie, who is the subject of much scorn and vitriol, is not explicitly identified as having a disability. Nevertheless, H.D.'s narrative echoes eugenic prejudices in its presentation of Minnie as an underdeveloped person who suffers from a supposedly hereditary defect, namely epilepsy.

Minnie's unannounced epilepsy is presented in three ways. First, Minnie is denigrated for her "eternal headaches."[103] Her finds them so annoying, she belittles and dehumanizes Minnie frequently: "Minnie is like some fraction to which everything had to be reduced"; "If her father was also the father to . . . this thing, then the half of her, that twin-self sister would be forever blighted."[104] Her headaches are a frequent topic in Her's disparaging monologue and mirrors eugenic anxieties about hereditary epilepsy: "Hermione would not let Minnie take the letters. Minnie would not be able to remember . . . anything . . . her headache always interfered when there were uninteresting things to do."[105] To the eugenicist, severe headaches were a sufficient symptom to suggest a case of epilepsy. Second, although Minnie is Her's equal in many respects, she is narrated as if she were a rambunctious child: "How explain to Minnie a sentiment about a stillborn child? Minnie was right. In some horrible torturous cranny of her inferior little being, she was right however. There was reason in her hysteria, in her tantrums."[106] Infantilization was a common trope of contemporary eugenic discourse, which deemed "feeble-minded" those individuals who had a lower "mental age" than their biological age. "Mental impairment" was generally linked to epilepsy in medical discourse more broadly. In a 1907 study, Dr. William Aldren Turner states that 83% of people with epilepsy have a "mental impairment" while 15.5% of them are "incapable of education" and "require supervision and care in the idiot asylums."[107] Her's comments likewise suggest that Minnie is incapable of caring for herself.

The third and final way that Minnie's epilepsy is suggested is in the supposedly hereditary nature of her condition. Minnie is repeatedly described as an inferior and foreign contaminant that "blights" the Gart family: "It was still incredible to Hermione [. . .] that she and Minnie should call the same person 'father' "; "a creature of Minnie's disposition could take it out of everyone"; "Minnie however was, she knew it, the one fraction that reduced them all, as family, to that level"; "Minnie made Gart hallway and the wood lilies and Pius Wood so much junk"; "Gart and Bertrand and Carl and the acid, acid Minnie that ate into them"; "They [the Garts] were Nordic [. . .] They budded from a South German affiliation to be blighted with the cross-purpose of New England. Into it, Minnie stepped, nonchalant and aggressive. She was their first 'American.' "[108] Her disparagingly notes that Minnie is the "first 'American' " to enter the family's European bloodline.[109] Epilepsy was thought to be hereditary as early as 1815.[110] Early twentieth-century "cures" restricted the reproduction of individuals with epilepsy. In a 1922 article entitled "Eugenics Versus Epilepsy," Dr. James Thomas Wright opined that "prophylaxis is ninety per cent of the cure."[111] For similar prophylactic reasons, Harry H. Laughlin recommended complete and indiscriminate segregation: "To withdraw each and every person who has at any time displayed epileptic tendencies, in any degree whatever, from the community, is the only rational course left open."[112] For Her, Minnie's marriage to Her's brother was a threat to the racial and biological superiority of her family.

H.D.'s prose, as literary scholars have shown, is influenced by her personal issues with pregnancy. Less often explored is the specifically eugenic twist that qualifies H.D.'s conception of spiritual rebirth. This aspect of her prose is evident in its treatment of disability, which is approached generally in *Notes* and more specifically with the example of epilepsy in *HERmione*. Among the three authors I have considered, H.D. is unique for forswearing scientific explanation and privileging a purely aesthetic account of rebirth. This account, nevertheless, is laden with the eugenic ideas circulating around the discourse of reproduction during the period. In stigmatizing disability and arguing against its aesthetic reproduction, H.D. championed the "normal healthy body" as an aesthetic norm. Adequate, spiritual rebirth would lead to a sexual self-knowledge that enabled one to reproduce one's "germ" in successive generations, but this possibility was not granted to all. For the sturdy trees of the forest, self-study would suffice to maintain health and purity, but for the gnarled weeds of the jungle, destruction is the only option.

Toward a Gynocentric Eugenics

During the early twentieth century, eugenic thought seeped into numerous cultural domains. American literature, with its modernist embrace of science and novelty, was a fertile soil for eugenic concepts to thrive. The novels of Charlotte Perkins Gilman, Gertrude Stein, and H.D. offer an informative cross-section of ways in which eugenic thought permeated literature. From bald-faced propaganda to anti-scientific manifesto, the orientation, purpose, and scope of their works differed drastically, but were all similar in their expression of the eugenic conception of reproduction. In those works, they depict the poor and persons with disabilities as defective and burdensome, contrasting their "crippled" bodies to a "normal healthy" ideal. By privileging the reproduction of the latter over the former, these authors reiterated and reinforced the tenets of selective breeding.

The feminine body, as the site of racial and national regeneration, was central to eugenic anxieties about "race suicide." The social significance that early twentieth-century scientists, reformers, and authors applied to reproductive matters served as justification for both positive and negative eugenics. The three women authors discussed in this chapter reinforced that justification by sounding the alarm about individuals "unfit" to procreate. By combining this warning with positive appeals for women's reproductive autonomy (Gilman), selective reproduction (Stein), and normalization (H.D.), these authors laid the conceptual groundwork for the popularization of a gynocentric eugenics in the 1920s and 1930s, specifically the Birth Control Movement. In this way, they were antecedents to a critical narrowing of eugenic discourse onto the pursuit of self-regulation.

The cases of Stein and H.D. both demonstrate that self-knowledge (either as the "history of us" or sexual enjoyment) was key to self-regulation. Only with an understanding of one's own hereditary potential could one make responsible reproductive decisions. Like their contemporaries, they believed that not all people could be trusted to be responsible. In these situations, eugenicists recommended negative measures. Although first codified into law by the State of Indiana in 1907, compulsory sterilization for eugenic purposes would be sanctioned by the Supreme Court of the United States in just twenty years with the landmark case *Buck v. Bell.* The decision was well-received, meeting virtually no opposition or outcry. Nevertheless, throughout the entire first half of the twentieth century, eugenicists focused their efforts on eliciting *voluntary* collaboration from the American population, mainly through educational initiatives and recreational activities. Based on the belief that self-knowledge would lead to self-direction, public campaigns for voluntary eugenics ushered the quest for better breeding into the second half of the century.

5

The Clinic

At the ripe old age of 85, Francis Galton finally felt vindicated by a society that was resistant to "eugenics" from the moment he first coined the term in 1883. Well-known for his self-critical attitude, the resistance was not as widespread as Galton surmised. Nevertheless, a noticeable shift in public opinion was occurring in the first decade of the twentieth century. The turning-point, according to Galton, was in 1907.[1] This year saw three significant events that exposed Galton's thought to an even wider audience. In recognition of his popular appeal, he was approached by a publisher to write his autobiography, which he eagerly penned that same year. While writing his autobiography, he was also instrumental in establishing the Eugenics Education Society, whose primary mission was to popularize eugenic thought. The same year, in the academic arena, he delivered the Herbert Spencer Lecture at the University of Oxford, which he titled "Probability, the Foundation of Eugenics." This last accomplishment may not seem like it had much popular appeal, but the text of the lecture reveals otherwise.

In the lecture, Galton is not shy about the need for popular approval of eugenic measures. "The enlightenment of individuals," he states, "is a necessary preamble to practical Eugenics."[2] Once enlightened, it would be possible for society "to proclaim a 'Jehad,' or Holy War against customs and prejudices that impair the physical and moral qualities of our race."[3] Yet he was not satisfied with just stating the importance of eugenic education. The form of the lecture, in addition to its content, deeply emphasizes the vital role of education. Nearly half of the lecture consists of five "Object lessons" intended to teach the principles of probability to the average person. Before his esteemed colleagues, Galton painstakingly described various essential concepts related to biometry and eugenics as if the audience had no prior knowledge of them. The “syllabus,” as he calls it, was intended to be an outline that teachers could fill in. Regardless of this fact, Galton spared few details. The description of the first lesson exemplifies his verbosity and is worth quoting at length:

> The object of the first lesson would be to explain and illustrate Variability of Size, Weight, Number, &c., by exhibiting samples of specimens that have been marshalled at random (Fig. 1), or arrayed in order of their magnitude (Fig. 2). Thus when variations of length were considered, objects of suitable size, such as chestnuts, acorns, hazel-nuts, stones of wall fruit, might be arrayed as beads on a string. It will be shown that an ‘Array’ of Variates of any kind falls into a continuous series. That each variate differs little from its neighbours about the middles of the Arrays, but that such differences increase rapidly towards their extremities. Abundant illustration would be required, and much handling of specimens.
>
> Arrays of Variates of the same class strung together, differing considerably in the number of the objects they each contain, would be laid side by side and their middlemost variates or ‘ Medians’ (Fig. 3) would be compared. It would be shown that as a rule the Medians become very similar to one another when the numbers in the Arrays are large. It must then be dogmatically explained that double accuracy usually accompanies a four-fold number, treble accuracy a nine-fold number, and so on.
>
> (This concludes the first lesson, during which the words and significations of Variability, Variate, Array, and Median will have been learnt.)[4]

The figures cited in the lesson plan correspond to a set of illustrations, used during the lecture, that depict basic statistical concepts such as random arrangement, orderly arrangement, and median size. The audience, however, did not require such minute description of fundamental concepts. Nevertheless, the lecture captivated them throughout its entirety.[5] What specifically was the purpose of the lecture?

Concepts such as probability or variability were not necessarily the object of Galton's lecture. Instead, the object was the pedagogical presentation of the concepts. "Probability" serves as a means of popularizing a eugenic ethos in the hopes that this knowledge would lead to a particular type of self-knowledge (i.e. an awareness of one's hereditary potentialities) that could inform one's marital, vocational, and reproductive choices. Eugenicists believed that this goal could be attained even without teaching eugenics directly: "a eugenic attitude [could best be taught] not by teaching eugenics as such, but by acquainting the students all along the line with the materials which go into a sound eugenics."[6] They hoped that the "attitude," once cultivated, would promote eugenic choices in an individual's life without need for oversight or coercion. Eugenic education, inspiring self-regulation, served both diagnostic and therapeutic ends.

In Chapter 1, I analyzed the methodology of eugenic diagnosis and its basis in psychological paper tools, notably George Partridge's *An Outline of Individual Study* and Robert M. Yerkes and Daniel W. LaRue's *Outline of a Study of the Self.* These tools were designed for, among other audiences, amateur observers who wished to study human heredity out of curiosity. Their designers hoped that their results would influence individual decisions and, when distributed on a larger scale, public policy. The Eugenics Record Office (ERO), which systematized these methods, elicited cooperation from the public by providing blank schedules for individual and family history (always sent in duplicates, so the person could send one copy back to the Office) as well as promoting its research and political mission at public events such as state fairs and international exhibitions. Far from the xenophobic prejudices of field workers and the tens of thousands of eugenic sterilizations, the eugenicist's friendlier, inviting side has prompted one historian to attribute a "Jekyll-and-Hyde nature" to institutional eugenic campaigns.[7]

American eugenics, from its very beginning, employed coercive and collaborative strategies. Some eugenicists deemed it necessary to forcefully segregate, sterilize, or murder "undesirables." The majority, however, sought some way of invoking a sense of "eugenic instinct" in the population at large. Education, by means of both traditional pedagogy and popular media, was the primary means for solidifying "eugenic consciousness" in the average American citizen. By 1915, the ERO, open for just five years, had already distributed approximately 20,000 blank schedules, which was said to be a sign of "widespread interest" in eugenics.[8] By the late 1930s, public interest had increased to a point where eugenicists believed it would be more efficient to establish clinics of human heredity that people would voluntarily attend to receive important eugenic advice. Throughout the mid-twentieth century, the clinic gradually replaced field work as the primary diagnostic and therapeutic eugenic technique. This chapter tells the story of the rise of the eugenic clinic from its origins in field work to its contemporary manifestation as genetic counseling.

To begin, I discuss the coercive and collaborative strategies embedded in eugenic field work. Then, I explain the history of the clinic in the United States, its birth at the turn of the twentieth century, and its application outside of medical practice, especially with regard to early psychological clinics and, by the 1920s, birth control clinics. I use Margaret Sanger's changing strategies of birth control activism as an example of the discursive transition from field work to clinical practice. Sanger originally utilized field work methods in her early career to popularize the meaning and message of family limitation, a message closely linked to eugenic discourse. Yet she quickly realized that a static location was better suited for distributing birth control instruction to individuals. Critical race and feminist scholars have long noted Sanger's complicity with the eugenics movement and argued about its greater relevance to the birth control movement.[9] This chapter contributes to that scholarship by examining how Sanger's belief that education was a therapeutic technique led to the formation of the birth control clinic. I treat the rise of the birth control clinic as part of a broader trend in eugenic discourse that emphasized education and self-regulation.

Next, I interpret these early clinics as precursors to the first eugenic clinic, developed by Harry H. Laughlin in 1938. Using previously unexamined archival documents, I reconstruct Laughlin's plan for a "Clinic of Human Heredity," which reproduced the tension between coercive and collaborative strategies in field work. Although it never materialized, Laughlin's plan became the blueprint for geneticists in the early 1940s who successfully built their own clinics. Genetics clinics carried eugenic techniques, notably genetic counseling, into the twenty-first century.

The transition from field work to clinical practice is significant because it marks the shifting strategy of eugenic discourse from one of surveillance and control to certain soft tactics like persuasion and education over the course of the twentieth century. It is perhaps the paramount domain of the "long history" of eugenics, since it represents the foremost continuity of eugenic discourse in terms of current medical practices and genetic technological capabilities. I argue that eugenic objectives and intentions continue to be present in contemporary genetic practices, not as coercive mandates, but as collaborative arrangements between physician and patient that empower the patient to make their own decisions. This seemingly paradoxical change-of-course can only be made sense of when placed in its particular context of eugenic strategies and the evolution of clinical practice. The clinic as eugenic technique ultimately reveals the discursive overlap of diagnosis and treatment. This overlap, in which epistemology becomes politics and vice versa, signifies the omnipresent social implications of the life sciences. These implications are strikingly clear today, over one hundred years after the beginning of the American Eugenics Movement, not only in applied genetics, but also in popular perceptions of ourselves, our relation to others, and health in general.

Eugenic Field Work

Starting in the late nineteenth century, field work was the perfect synthesis of coercive and collaborative strategies for attaining eugenic goals. A field worker's success often depended on their ability to establish common ground with a target and foster the target's compliance throughout the interview. After a day of canvasing, some field workers would end up empty-handed. Sometimes people could not be tracked down, other times they refused to talk or regaled the frustrated field worker with wild tales. Although the fortune of the field worker often rested on their target's willingness to collaborate, the ERO codified useful techniques of persuasion within just a year of its opening.

In 1911, Charles Davenport, Harry Laughlin, and other leading eugenicists authored the first manual for eugenic field workers, *The Study of Human Heredity: Methods of Collecting, Charting, and Analyzing Data.* In addition to lauding field work as the primary diagnostic methodology of eugenics (contrary to Mendelian analysis, as I argued in Chapter 1), this manual instructs the field worker on how to attain the desired information. Insofar as they worked with people, field workers had to be friendly and welcoming. They were expected to maintain contact not just with the propositus (in or out of an institution), but also physicians and the propositus' relatives, friends, and neighbors. Playing off contemporary views that social work was a maternal practice, the manual (authored by five men) states that the field worker is "preferably a woman."[10] Nearly all of the 258 field workers trained by the ERO were women.[11] This preference for women on the front lines is preserved through the transition into clinical practice and remains till this day in the predominantly female profession of genetic counseling.

Field work is broken down into four stages. First, the field worker "learns all she can about the patient from the material at the office such as correspondence, application blanks, records of medical and psychological examinations." Records are indispensable for this task and will become a central function of the later clinical model. They helped officials and activists track, diagnose, and continue treatment for individuals beyond their institutional reach. Second, they pay a "friendly visit" to the patient in order to acquire information about the patient's friends and family, which "assures her cordial welcome" into the patient's community. Third, using the intimate knowledge of the family gained from the patient, the field worker gets acquainted with and interviews as many relatives, friends, and neighbors as possible. The interview process itself must be conducted carefully so as to maintain the target's collaboration. The field worker is instructed to appear sympathetic and to write notes on blank pages of paper, since filling in a printed form could appear too objective and detached. When the field worker meets any "defectives," they must gather as much information on them as possible for "when application is made for admission to Institutions."[12] It is notable that on this point, despite the tactics of persuasion intent on social control, the manual adheres to a principle of voluntarism. Fourth and finally, a pedigree chart is drawn, full descriptions of every individual are written out, and the information is stored at both the local institution and at the ERO.[13]

The four stages of field work demonstrate that its success was not guaranteed by collaboration alone, but also by the psychological strategies crafted by eugenicists in order to elicit cooperation. Elicited cooperation often became complete coercion when field workers interviewed captive audiences such as prisoners and the institutionalized. More often, however, field work targeted the population-at-large in order to monitor and evaluate individuals for potential intervention. Despite its methodological appeal, field work was an expensive and timely process requiring trained experts. Even if it did sometimes foster genuine collaboration from the average citizen, its scope was far too limited to prevent the supposed degeneration of American stocks. For this reason, eugenicists in the 1920s initiated popular, pedagogical campaigns in order to elicit the unprompted cooperation of the American public.[14] One such campaign involved the centralized distribution of eugenic advice through clinical practice. Although initially rare and at times compulsory, the clinic became the ideal model by the mid-1920s for bolstering voluntary adherence to eugenic principles and, *a fortiori*, regulating the biological well-being of the population.

The Birth of the Clinic

Established in the late eighteenth century, the first medical clinics were set up in French military hospitals for expressly pedagogical purposes. Unlike other medical apprenticeships, the clinic experience emphasized observation over theorization. The face-to-face experience of a patient and their symptoms was more clinically valuable than, for instance, the mathematical values of bodily measurements. By the turn of the century, the spread of teaching clinics along with their growing economic and political value as institutions of national hygiene led to, according to historian and philosopher Michel Foucault, “the opening up of the individual, for the first time in Western history, to the language of rationality.”[15]

Although clinics at this time were didactic tools for a quickly professionalizing medical discipline, their first task was diagnosis.

It was in their diagnostic methodology that clinics present something new to medical knowledge. At this moment, faith in the ancient wisdom of doctors, codified in theorems and precepts which were recorded in dusty books, was shaken and forsworn by technological rationalism. Assuming its prestigious place were diagnostic techniques such as “chemical experiments, anatomical dissections, surgical operations, and [. . .] the use of machinery.”[16] It was believed that these techniques could access the truth of the disease far better than previous theoretical methods. Bolstered by Enlightenment optimism, the clinic provides an opportunity in which the doctor may see (*voir*) and, at the same time, know (*savoir*) the internal mechanisms of human pathology.[17] In this way, the matrix of relations linking doctor to patient and disease to diagnosis is “at once perceptual and epistemological.”[18]

It took another hundred years for clinics to be founded in the United States. At the turn of the twentieth century, medical clinics began to proliferate, but so did other types of health care clinics.[19] Notably, clinics specializing in the emerging *psy* disciplines (psychology, psychiatry, psychopathology, etc.) offered their services to both voluntary citizens and captive audiences. The first psychological clinic was founded by Lightner Witmer at the University of Pennsylvania in 1896. Soon after, William Healy established the first psychiatric clinic in Chicago. Although these clinics retained a shadow of the medico-diagnostic ambitions of the French military hospitals,[20] they re-purposed themselves for an age in which political reform went hand-in-hand with social control and biological regulation.

According to psychologists-turned-historians Murray Levine and Adeline Levine, early twentieth-century clinics like Witmer’s and Healy’s “were embedded in the community, were concerned with the educational process, and were oriented toward prevention.”[21] Herein lies the key difference between American clinics and the original French model. Whereas clinical teaching was previously for didactic and research purposes alone, American clinicians believed that the diagnostic process was therapeutic in itself. The American clinic, in its practice, synthesized diagnosis and treatment. Witmer’s Psychological Clinic was designed according to this belief.

Not much is known about Witmer’s clinic during its first decade of operation. This dearth of public information would be partly rectified in 1907 with the publication of the first issue of *The Psychological Clinic*, a journal edited by Witmer for the express purpose of recording, publicizing, and organizing clinical research. Running until 1935, the journal covered both theoretical and practical issues, including many specific case histories of patients demonstrating both the diagnostic and therapeutic power of clinical practice. Many of these case histories are published with the headline "Diagnostic Teaching," a methodology devised by Witmer himself.

Witmer opened the first issue of the journal with a description of "clinical psychology," a term he coined. The prefix "clinical" was intended to denote a method, rather than a place.[22] The method in question, called diagnostic teaching or othogenics, combined diagnostic procedures with on-the-fly therapeutic treatments. He lamented that a diagnosis could only be made once the treatment had already begun:

> it is impossible to make a satisfactory diagnosis of the mental status of a child after seeing him once or indeed after several visits. The child's capacities and failings only become apparent after an attempt is made to teach him something beyond his known acquirements.[23]

He touted this method as beneficial for "abnormal," normal, and even "extra-bright" children.[24] Many of his early patients, however, had physical, mental, and learning disabilities that he tried to cure with "pedagogical treatment," aided by devices like the formboard test (a simple peg board with differently shaped pegs) and carpenter's tools.[25] Thus, for Witmer, education was thought to be ameliorative in itself.

The diagnostic-therapeutic overlap in clinical practice implied a less formal diagnostic procedure than, for instance, the elaborate questionnaires of eugenicist-psychologists.[26] In a comprehensive study of one thousand clinical records, Witmer argued that no clear diagnostic methodology emerged among the different attending psychologists that would be preferable to any other methodology. For this reason, he insisted that the clinical examination be kept "in a fluid state" and avoid at all costs the "formalism of the blank."[27] Blanks and other techniques such as the Binet test were deemed dubious at worst and redundant at best. According to Witmer, a psychologist's diagnosis "on sight" would reach the same conclusion in a shorter time as the Binet test when administered correctly.[28] And time, indeed, was an issue for Witmer's clinic, which was so popular by the 1920s that it had numerous imitations pop up across the country.[29] To administer every test to every child, while producing "data of great statistical value," would have taken so much time that it would turn the Psychological Clinic, Witmer warned, into a bureau of statistical inquiry.[30] Early clinics had to establish a delicate balance between diagnostic research, teaching, and therapeutic practice.

Nevertheless, statistical data was valued at a premium when it could be had. The record-keeping process constituted the most obvious hold-over in the transition from field work to clinical practice. Early clinicians sometimes felt that they needed even more patient data than was supplied to them by authorities, social work professionals, parents, and collaborative patients.[31] At the same time that these new institutions were founded for collecting data, new technologies for data storage and processing were being invented. The card catalog in particular, essential for indexing the hundreds of thousands of pages of blanks at the Eugenics Record Office, became a vital component of medical, legal, administrative, and commercial practices during the early twentieth century.[32] For this reason, it is no surprise that Healy's record forms for his Juvenile Psychopathic Institute were based on business ledgers, modified for clinical practice by business executive W. F. Dummer.[33] In making diagnosis and treatment more efficient, the card catalog and other so-called "paper machines," i.e. technologies for the collection and processing of data recorded on paper, allowed the psychologist to apply their scientific knowledge more effectively. Witmer, in a remark that would forecast the next century of clinical practice, declared that technological progress goes hand-in-hand with scientific progress:

> The practical needs of the astronomer to eliminate the personal equation from his observations led to the invention of the chronograph and the chronoscope. Without these two instruments, modern psychology and physiology could not possibly have achieved the results of the last fifty years. If Helmholtz had not made the chronograph an instrument of precision in physiology

> and psychology; if Fechner had not lifted a weight to determine the threshold of sensory discrimination, the field of scientific work represented to-day by clinical psychology could never have been developed. The pure and applied sciences advance in a single front.[34]

The card catalog, however, was not the only technological innovation of the period to have a significant impact on clinical practice. In the field of gynecology, developments in birth control enabled medical professionals, social workers, and activists to spread the rhetoric and means of family limitation within a single clinical visit.

Margaret Sanger and the Democratization of the Clinic

Influenced by radical social reformers and anarchists in the bohemian culture of Greenwich Village, Margaret Sanger began her activism in the early 1910s with two serialized newspaper columns for the *New York Call*, titled “What Every Mother Should Know” (1911-12) and “What Every Girl Should Know” (1912-13), both later collected and published as books. These columns made Sanger notorious and led to her first brush with the law due to the “obscene” nature of her descriptions of venereal disease. Today, Sanger is remembered as the outspoken advocate for women’s health care and reproductive rights. She founded Planned Parenthood (originally called the American Birth Control League) and her activism provoked the decriminalization of the distribution of birth control information and devices. Whereas the use of birth control is commonly thought of as an individual rights issue today, it had racial and national significance in the early twentieth century. As I demonstrated in the previous chapter, reproduction was popularly thought to be not just an individual issue, but one that affected the family, race, and nation.

Her written work, distributed in newspapers, journals, magazines, and pamphlets, as well as her public addresses, radio communiques, and didactic films integrated education, public health, and female empowerment in what was the most popular eugenic campaign for racial improvement in history. Insinuating that individual choices have national and racial consequences, she turned women's bodies into contested sites of nationhood and racial identity. Even though she firmly believed in the necessity of population control measures, she argued that the gateway to health and economic stability was voluntary motherhood, i.e., the ability for a woman to decide if and when she has a child or not:

> Eugenics without Birth Control seems to us a house builded upon the sands. It is at the mercy of the rising stream of the unfit. [...] Only upon a free, self-determining motherhood can rest any unshakable structure of racial betterment.[35]

This message resonated with eugenicists as much as it did women's rights activists.

The Woman Suffrage Movement is commonly thought to have begun in the United States in 1848. In July of that year, 300 women and men met in up-state New York for what would become known as the Seneca Falls Convention. The Convention debated the status of women in nineteenth-century society and ultimately composed a "Declaration of Sentiments" that described women's inferior social status and what had to be done to rectify it. The proposed resolutions affirmed gender equality as well as highlighting the need for women's social mobility, enfranchisement, and economic freedom. "The history of mankind," they wrote, "is a history of repeated injuries and usurpations on the part of man toward woman, having in direct object the establishment of an absolute tyranny over her."[36] Despite a rhetoric of revolution inspired by the Declaration of Independence, the Suffrage Movement at this time merely sought parity. This mission would culminate in 1920 with the ratification of the Nineteenth Amendment granting women the right to vote. During this time, however, a new image of woman and her role in society emerged. The "New Woman," as she was called, illuminates Sanger's particular brand of female empowerment.

Unlike the suffragists, but closely linked to them, the New Woman desired independence rather than parity. The second industrial revolution at the turn of the century paralleled an equally radical cultural revolution. During this time, the advent of consumerism and mass media urged people, especially young people, out of the home more often. The increased independence of the youth was compounded by the late nineteenth-century free love movement, which preached sexual liberation against strict Victorian morality. In this context, the New Woman emerged. The term describes more of an approximate archetype than an actual style or worldview, but one thing connected the disparate regional and cultural manifestations of New Womanhood: the desire for self-determination in all aspects of life, not just work and politics.

Upon this backdrop, Sanger's Birth Control Movement was painted. Rather than contesting the paradoxical marriage of coercive and collaborative strategies in the American Eugenics Movement with an unequivocal defense of self-determination, Sanger deftly joined this feminist virtue with a eugenic sense of social responsibility. Arguing against more authoritarian forms of eugenics, she equated a woman's right to her body to a duty to the State: "Eugenicists imply or insist that a woman's first duty is to the state; we contend that her duty to herself is her first duty to the state."[37] Sanger contends that voluntary, autonomous choices made by a woman about her own body can, at the same time, fulfill a national (and racial) obligation. Throughout her career, from her pamphlets to her clinical practice, she articulated reproductive freedom in these terms. The assumption underlying her popular brand of "voluntary motherhood" was that reproductive freedom would lead to more fit and desirable babies and less unfit and undesirable ones. As historian Linda Gordon notes, voluntary motherhood was frequently linked to these eugenic ends:

> It would be hard to find a single piece of writing on voluntary motherhood between 1890 and 1910 that did not assert that unwanted children were likely to be morally and/or physically defective.[38]

Sanger, unlike eugenicists of her time, realized that biological and national improvement was better achieved through collaborative instead of coercive means, as long as one could situate reproductive decisions within a eugenic framework. This strategy is precisely what she employed in her newspaper columns, magazine articles, journal (*Birth Control Review*), public speaking tours, mass-mailing campaigns, radio addresses, and, eventually, clinical practice.

Sanger's early pedagogical direct action was the impetus for the formation of America's first birth control clinic. She believed that education was important because "women are afraid of their own bodies."[39] The clinic was a place for a woman to become familiar with her body. This space allowed for words to turn into deeds, self-knowledge to coalesce into self-direction, especially in the case of uneducated, working-class and immigrant women who supposedly could not learn from the pamphlets:

> Theories and solutions are quite all right; printed matter will carry the message to those who have been educated. But women must be told by word of mouth and shown by demonstration standards what to do and how to do it.[40]

Only in this way, according to the last edition of *Family Limitation* published a year after the founding of the first legal birth control clinic, could women adequately "close the gates of [their] bodies against the diseased, the unfit, and bring to birth only the best."[41]

Within the first couple decades of the twentieth century, the clinic had established itself as a model institution for social reform. In the late 1910s, Sanger added another chapter to the history of American clinics. Recently returned from Europe, where she was inspired by a visit to the world's first birth control clinic, founded in Holland, Sanger set about establishing her own clinic in the Brownsville neighborhood of New York City. Although directly influenced by the Holland model, it is likely that Sanger, a long time social reformer by this point, had familiarity with the recent American trend.[42] Already convinced by this time that individual, face-to-face instruction was the best way to encourage family limitation and reproductive autonomy, Sanger opened the first American birth control clinic on October 16, 1916.

The Brownsville clinic was short lived, lasting only ten days before being raided and shut down by police. Some historians have implied that it was never meant to be an operational clinic, but was a publicity stunt by Sanger to call attention to her legal battle against the Comstock laws of 1873, which prohibited in New York the mailing of items deemed "obscene," including contraceptive information.[43] Within those ten days, about five hundred women passed through the clinic, receiving instruction on the use and availability of pessaries. This early clinic was not established to distribute contraception (although it may have sold condoms and pessaries discreetly), but offered oral instruction and pamphlets on the use of douches and birth control devices. Nearly all the women who attended had their "case history" recorded by clinic staff.[44] It is not clear what Sanger intended by recording this information, but the procedure would become the *raison d'être* of her next birth control clinic.

On January 1, 1923, Sanger opened the Clinical Research Bureau (CRB), which was the first permanent birth control clinic in the United States. This time around, her aim was less provocative. Although essentially serving the same function as the Brownsville clinic, Sanger used a legal loophole to open it under the guise of a "dispensary." Essentially, the clinic operated as a private practice under the head physician, who prescribed contraceptives for "health reasons" alone. In this way, every contraceptive distributed by the CRB was done for medical or eugenic purposes, at least on paper. To include the term "clinical" in the name, Sanger was required by law to define it as a "research" clinic. Only medical clinics approved by the New York State's Board of Charities could operate under the name "clinic," unless, according to another loophole, the "clinic" was research-oriented.[45] Nonetheless, Sanger must have taken the title to heart, because research quickly became the *modus operandi* of the CRB.

Birth control clinics like the CRB began to spring up across the United States during the 1920s. Many of them were caught in a catch-22 when it came to publicizing their services. Too much publicity could incite a police raid, whereas too little would lead to a failure of the clinic to attract clientèle. Nevertheless, these clinics were wildly popular. Some courageous activists jettisoned all caution and took out advertisements in the paper for their clinic. Others spread the news through word-of-mouth to friends and family as well as at neighborhood and church group meetings.[46] Independent clinics like the CRB handled the vast majority of birth control instruction throughout the nation, despite only accounting for about 60% of total clinics.[47] The CRB, by far the largest and most well-known of the independent clinics, recorded roughly fifteen thousand clients per year.[48] Within its first six months, Sanger declared in a newsletter to members of the American Birth Control League (ABCL) that the clinic was "the most important advance" of the birth control movement that year.[49]

In spite of its popularity, not all women could access a birth control clinic. Many clinics including the CRB would only admit married women who had already had one or more children. While the Brownsville clinic was conscientiously opened in an impoverished, immigrant neighborhood with a high fertility rate, the CRB shared a building with the ABCL offices in the East Village neighborhood.[50] The regular fee for a visit was ten dollars, but women were allowed to pay as much as they could manage and some were even treated for free.[51] Women who could not afford to make it to the clinic would write in for information and be sent a copy of Sanger's *Family Limitation* and the address of a local physician who provided birth control instruction, if available.[52] In addition to these geographical and economic barriers, it was required by law that women could only receive birth control instruction for a valid health reason. The attending physician simply had to declare that a woman's health would be in serious jeopardy if she were to get pregnant, but eugenically minded activists and clinic staff used this opportunity to educate women about the reproductive danger of hereditary disease and disability.

All women accepted for treatment at the CRB were first interviewed. The interview, which would often last over half an hour, was conducted by the clinic staff prior to the client being seen by the doctor. The interview was a chance to begin recording a woman's case history and investigate if there was a medical or eugenic need for her to have birth control. Staff members, primarily young women of ample means who volunteered at the clinic, used the occasion for more than just recording information. They would educate women about their bodies and the reproductive cycle. Based on the surviving records from the CRB, there is little doubt that this education was partly eugenic in nature. A common line of questioning included, "Are [your children] normal?"[53] The clients themselves were suspected of being and often diagnosed as abnormal. According to historian Cathy Moran Hajo, "Case reports are peppered with terms like 'feebleminded,' 'of low mental and moral level,' or 'mentally defective.' "[54] Apart from the interview, eugenic diagnoses were sometimes made on sight, such as when one staff member described a potential client as a "border case mental defective."[55] The interview, in this way, served a dual purpose. It was both an occasion to secure a viable "health reason" for birth control instruction, thus maintaining the legality and existence of the clinic, and an opportunity for birth control activists to spread eugenic thinking.[56] This thinking, as can be seen from the case reports, strived to specifically limit the reproduction of the abnormal, which most often meant people with disabilities.

Sanger's CRB was unique when compared to previous American clinics like Witmer's because it was intended to be a model that other activists could replicate. When the model did not spread immediately, Sanger blamed it on a lack of education about the effectiveness of the model:

> There was no use upbraiding, accusing, or censuring women for not doing what I hoped they might do [i.e. open clinics]. The fact was that they did not feel this need as I did, and it was now my job to make them *see* and *feel* it by greater agitation and wider education.[57]

The clinic, in this way, would be inherently self-replicating; it would educate women about the importance of birth control and birth control instruction, who would in turn educate other women, preferably by means of clinical practice. After her first clinic failed, Sanger urged "immediate group action to form clinics at once." "The free clinic is the solution for our problem," she went on, "It will enable women to help themselves."[58] Others saw this potential too. Dr. William J. Robinson, advising Sanger on the legality of her first clinic, told her that "this Birth Control Clinic might become the germ of thousands of similar clinics."[59] History has proven Robinson right. Sanger had effectively democratized the clinic model.[60]

Women helping themselves was part of a common refrain of birth control activists, but the emphasis on autonomy belied a deeper, more sinister commitment to racial and national improvement. In "The Eugenic Value of Birth Control Propaganda," Sanger explains the ultimate value of the kind of education that took place in the clinics:

> Birth Control propaganda is thus the entering wedge for the Eugenic educator. [. . .] The potential mother is to be shown that maternity need not be slavery but

> the most effective avenue toward self-development and self-realization. Upon this basis only may we improve the quality of the race.[61]

In the confluence of biological health and self-realization, bodily self-control is linked to racial improvement. More particularly, it is the feminine body alone that is capable of "those modifications of form, capacity and ability which constitute evolutionary progress."[62] To this end, Sanger's "educational" materials and clinical practice sought to *incorporate* women's bodies into the national project of purifying the American body politic. This project was, above all, concerned with eradicating all forms of "defect" and disability that would supposedly make a people physically and mentally weak. In this way, gender and disability were intimately entwined in the clinical space and the latter figured prominently in reproductive decisions.

To ensure that racial betterment, rather than just happy mothers, was truly the outcome of contraception, the CRB, as clinics before it, took down detailed case histories on many of its clients. Each client's information was recorded on a "history card" that Sanger designed in consultation with eugenicists Raymond Pearl, Adolf Meyer, Leon J. Cole, and others.[63] By the mid-1920s, it was recording 1200-1500 case histories per year.[64] These histories constituted the first thorough, scientific research on birth control methods and contributed to the wane in popularity of ineffective methods such as jellies, douches, and withdrawal. They also, however, became a paper machine for diagnosing, treating, tracking, and following up with clients.

The heart of the clinic, in many ways, was its card catalog. When the first lead physician of the CRB, Dorothy Bocker, was fired for inadequate analysis of the clinical records, she went to the CRB office and destroyed all of the records by ripping off the filling tabs on which the clients' names were written. Sanger, who believed that this information was useless if it could not identify the person, wrote the following in her diary regarding the incident: "The records!! The names taken by her, make the records useless. [. . .] Sneaked into the office Sunday & took the cards & names. Must begin all over again. Regain faith in human beings."[65] Bocker's juvenile act of vengeance reveals how important the records were for the clinic (since it could supposedly not function without them) and how their use exceeded anonymous data collection on birth control methods (since they were useless without identifying information).[66]

Figure 3: A large card catalog sits near the front door of the Clinical Research Bureau.

In the words of one historian, the CRB was a "one-stop shop" combining diagnosis, treatment, and a sophisticated surveillance apparatus.[67] It was the "inspiration and justification" of over 300 other clinics by 1938, which continued to be women's primary source of birth control through the 1940s.[68] As the Birth Control Movement transformed through these decades, so did the clinics. They rebranded themselves "family planning" clinics or "marriage counseling" centers and added additional services such as marriage counseling, infertility treatment, and sterilization. Some women who worked under Sanger, such as Emily Mudd and Hannah Stone, became pioneers in the developing field of family planning, which incorporated many of the prejudices of the early birth control advocates. Stone, who is mainly known for being the head physician of the CRB from 1925 until her death in 1941, anticipated the need for a eugenic clinic in 1929:

> There is a distinct need, in my opinion, even today, for the establishment of so-called eugenic centers. There is a growing demand for concrete knowledge regarding the

> facts and problems of eugenic matings. The young man and young woman of today realize to an increasing extent the importance of proper mating, and particularly the importance of sound physical and mental background for the production of offspring.[69]

Such a “eugenic center” was closely aligned with the birth control clinic, according to Stone. In the same article, she anticipates that the “birth control clinic of the future” will be organized on the same “biological basis” as eugenics. The birth control clinic, joined with a “eugenic department,” would form a more general “marriage advice station,” much like the “Marriage Consultation Center” that Stone founded just two years later in New York with her husband. Based on principles of voluntary association and individual choice, Stone portrayed future clinics as ameliorating factors for both the individual and the race:

> In the clinic of tomorrow the germination of a wider social and racial consciousness will be stimulated. [...] The birth control clinic of today arose primarily in response to the needs of the individual mother or the individual family. The birth control clinic of tomorrow will serve also the needs of the race.[70]

The tendency to discourage births from the “unfit” continued well into the late twentieth century among activists, researchers, and health care professionals. In a 1966 anthology of conference proceedings published with the hope of encouraging health care and welfare professionals to open their own public family planning clinics, the introductory address offers a resounding echo of a eugenic catchphrase by declaring the aim of such clinics to be “quality rather than quantity.”[71] In one of the papers, psychiatrist James Pearce discusses the purpose of the clinic with regard to this mission:

> The answer is not in diagnosis, nor in treatment and rehabilitation programs, although these are desperately needed. The only reasonable answer is in preventive programs. We must make some attempt to limit pregnancies to those that are desired. Prevention should

> be the primary goal and primary selling point of a family planning clinic.[72]

The ultimate goal, of course, was not to empower women to control their reproductive potential, but to limit births from "problem" families, such as those with hereditary "mental deficiency" or a tendency toward delinquency, both examples given by Pearce. Even the new emphasis on "prevention" was prefigured by Sanger, who concluded many editions of her *Family Limitation* pamphlet by stating the need "to prevent the birth of diseased or defective children."[73] As with the eugenic discourse on character explored in Chapter 2, the eugenic lexicon changes as time goes on, but its purpose remains the same.

From Witmer's Psychological Clinic to the hundreds of birth control clinics that popped up in the 1920s, these early clinical models established two essential contradictions that would define mid-century eugenic clinics. First, the diagnostic procedure was, at the same time, therapeutic. Reiterating the eugenic dogma that education alone would lead to social and evolutionary progress, clinicians believed that information could be curative in itself.[74] Education and the accumulation of information, in this way, became an exercise of power. The new significance placed on data collection and its attendant technological innovations spurred a second contradiction: whereas the object of clinical practice transformed from the involuntary "patient" to the voluntary "client," the client was forced to contend with an expanding surveillance apparatus that subjected them to further, at times undesired, eugenic and penal intervention. Despite dealing with primarily captive audiences, Healy stated that an individual's willingness to approach the clinician was the "golden moment" of treatment.[75] What followed after this golden moment, however, was carefully monitored and evaluated in case further intervention was required. These contradictions, rather than impeding the operation of the clinical model, allowed its divergent collaborative and coercive practices to work in unison in order to promote the "social efficiency" (to use Witmer's phrase) of their clientèle.[76] In 1938, Harry H. Laughlin introduced the clinical model to the mainstream eugenics movement.

Laughlin's Clinic of Human Heredity

Birth control clinics proliferated rapidly across the country during the late 1920s and 1930s. As the primary source of women's reproductive health care, these clinics, largely independent and run by activists like Sanger, provided an essential service well into the 1940s. By 1938, there were nearly 500 birth control clinics in the United States.[77] Like the rest of the country, eugenicists took note of this shift in popular opinion. For the first couple decades of the century, they were adamantly opposed to birth control. They believed that the socially responsible who "should" reproduce would lower their birth rate by using it, while the "undesirable" classes would be too ignorant, unintelligent, or immoral to bother using it. Eugenicists thus believed that birth control would exacerbate the "differential birth rate" (i.e. the recent and drastic reduction in births from the upper classes and the inverse effect in the lower classes) and lead to an increase in dysgenic elements in society. As early as 1922, members of the American Eugenics Society (AES) realized that they could no longer prevent the spread of birth control.[78] In an about-face, the AES started to promote contraceptives in the late 1930s, albeit as a means of population control.

Harry Laughlin, an old guard eugenicist, was among those originally resistant to birth control. In 1923, he wrote to Sanger that he could not endorse birth control unless its use coincided with an effort to encourage "a higher birth rate among persons best endowed by nature with fine mental, physical, and moral qualities."[79] Like his colleagues, Laughlin could not manage this strategic position for much longer. The concomitance of industrialization, consumer culture, and sexual liberation stoked popular interest in birth control. Persistent challenges to laws prohibiting the spread of birth control devices and instruction throughout the 1920s foreshadowed their inevitable repeal. Three years after his letter to Sanger, Laughlin optimistically declared in an article published in Sanger's *Birth Control Review* that birth control and eugenics were working toward a common end.[80] He also praised the pedagogical techniques of the birth control movement, admitting that they exceeded "eugenic education." Taking his cue from Sanger, Laughlin planned to reform eugenic education just over a decade later in his plan for a

"Clinic of Human Heredity." Although this clinic never materialized, it informed the genetics clinics that popped up directly after it and foreshadowed long-term trends in genetic diagnosis and treatment.

To a certain extent, clinical practice was already familiar to Laughlin when he set down the plans for his formal clinic. To an outside observer, the ERO operated as if it were a clinic insofar as it conducted diagnoses, kept patient records, and offered marital and vocational advice. In a 1939 report on the ERO's history, Laughlin similarly noted the clinical nature of the ERO: "While no dogmatic advice is ever given by the Eugenics Record Office in reference to problems which involve human heredity, persons who have presented their problems *as to a clinic* have, in every case, received careful consideration."[81] Such persons were termed, in ERO parlance, "volunteer collaborators" and were believed to be concerned citizens interested in improving the hereditary health of their families and communities.[82] In 1938, Laughlin began thinking that the educational efforts of the ERO and similar institutions could be housed in specialized clinics that would serve the volunteer collaborators, thus allowing those institutions to focus on research.

The idea for a clinic came to Laughlin over the course of his work on "The Survey of the Human Resources of Connecticut," a two-year eugenic survey commissioned by the state governor ending in October 1938. Its stated goal was the "reduction in number of individually defective and handicapped persons produced by or resident within the state."[83] The means of reduction ultimately recommended by Laughlin were by this time common suggestions: migration control, mate selection, sterilization, segregation, and euthanasia.[84] For these means to be effective, however, numerous "data sources" had to be consulted to build what would effectively be a pedigree chart of the entire state. These data sources were first limited to government officials, teachers, and local inhabitants, but later expanded to include family members, friends, physicians, lawyers, priests, social workers, counselors, judges, and public health officers.[85] Two critical apparatuses were required to collect and process this mass of data: a census and a clinic.

Laughlin devised a biologically-based census that would be conducted in order to create a "permanent population registry," which could be later used for eugenic diagnosis and intervention. The registry, also termed the "Master File," was intended to be a "complete, accurate, and up-to-date" card catalog of inadequate persons in the population. Yellow divider cards would list the town name on their tab and contain the sum totals of institutional inmates, people in out-patient programs or receiving government aid, and individuals in the population-at-large suspected of being part of the "inadequate or handicapped classes." Color-coded individual analysis cards followed: white for inmates, blue for "outdoor cases," and red for "equivalents." For those institutionalized or receiving outpatient care or aid, the onus of data collection fell on administrators and social workers. By contrast, the at-large cases would have to be recorded through "firsthand field work, by consulting the census and registry, by voluntary collaboration, and by any other means found by the vigil and active keeping of the 'Master File.' "[86] Laughlin believed that this religious devotion to keeping the registry up-to-date would help coordinate all diagnostic and therapeutic operations concerning the "inadequate and handicapped" classes. Moreover, in regard to the proposed means of reduction stated above, he insisted on the necessity of the card index for the "effective administration of the state's policy for the reduction of human degeneracy and handicap."[87] Hence, eugenic discourse in the late 1930s began to integrate its paper tools into emerging paper machines to form an apparatus that could simultaneously diagnosis and treat individuals in the population-at-large.

The census was portrayed as a necessary component for managing the reproductive capacity and genetic hygiene of the population. Its therapeutic purpose is worth analyzing further. Laughlin elaborates on it toward the end of the survey:

> The state would be in much sounder position than it now is, *even if no advance in race betterment were attempted*, if it maintained an up-to-date census and registry of its whole population classified not only by the present periodic census data of sex, age, occupation and so forth, but also as to certain hereditary qualities and family-stock connections and individual endowments in body, mind and spirit.[88]

In other words, the census data itself, based on individual and family hereditary qualities identified through pedigree analysis, without any regulatory interventions such as segregation or sterilization, would be ameliorative. The reasoning is that self-knowledge alone is sufficient to prompt self-regulation. With this line of thought, Laughlin echoes a eugenic trope common to Stein, H.D., Sanger, and others. This conceptual triangulation of collaboration, education, and intervention formed the theoretical and practical foundation of early clinical practice. It is no surprise, then, that one of Laughlin's final recommendations in the survey concerns the establishment of a "Clinic of Human Heredity" for collecting and processing data from the population as well as coordinating therapeutic interventions.[89]

In 1938, the same year as Laughlin's report on the Connecticut Survey, he composed a general plan for a model "Clinic of Human Heredity" irrespective of location. Laughlin's Clinic had four major formal similarities to Sanger's model. First, clinical services would be entirely voluntary. Laughlin insisted on this point not only because it would be cheaper than employing field workers to search for clients, but also because the "most valuable pedigrees of human traits" came from willing collaborators who reported on traits present in their families or in their neighbors' families.[90] This point also justifies the transition from field work to clinical practice. Reiterating that the ERO had already unintentionally served as a clinic "in a limited manner" through its correspondence with collaborators, Laughlin argued that a great deal of time and labor would be saved by diagnosing and recording the hereditary traits of individuals in a clinic instead of through the mail. This economic motive is obviously stated for strategic reasons, since the proposal asks for more funding to cover land, construction, and staffing costs. Of course, Laughlin does not hesitate to include a eugenic motive for the shift to clinical practice as well:

> if a competent clinic were organized for handling such problems [i.e. the time- and labor-intensive "questionnaire and correspondence method" of data collection], and if it were generally known that such a clinic were available, doubtless a great number of cases with accompanying data on the family distribution of certain specific subject-traits would be offered to the clinic each year.[91]

In other words, the clinic would accomplish the same objectives stated by the ERO, namely the research and detection of hereditary qualities within the nation's germplasm. Furthermore, it would do so quicker and more cost-effectively than previous methods, especially field work and correspondence. Surprisingly, these benefits are only achievable, according to Laughlin's proposal, if the clinic remains voluntary.

The second similarity to birth control clinics is in their staff. Laughlin initially hoped to have a robust staff at the clinic consisting of a eugenist-in-charge, a diagnostician (also titled "an expert in human 'yardsticks' "), a geneticist, a field worker (to also serve as a traveling agent and reference librarian), a secretary-stenographer, an archivist-librarian, and a caretaker-janitor. Realizing that this may not be feasible, Laughlin mentions in a note that clinical work could begin immediately with only a clinician-in-charge and a secretary operating out of a small suite of offices. This more modest proposal mimics the spatial and administrative organization of Sanger's Brownsville clinic, which had only three staff members (Sanger, a nurse, and a secretary) and was located in a non-descript, small storefront.[92] In both cases, the minimum requirements of clinical practice illuminate the clinic's essential service: the creation of records (i.e. diagnosis) by a diagnostician and their maintenance by a bureaucrat-administrator. Hence the reason why Laughlin proposed that the clinic building be fireproof, like the ERO building before it.

Third, since clients would attend the clinic voluntarily, more emphasis was placed on education than on direct intervention. Eugenicists since Galton realized that one could not force a couple to mate according to scientific principles. In the battle between love and eugenics, love would always win, even when it was presumably detrimental to the race. With negative eugenic measures declining in frequency and popularity throughout the 1930s, eugenicists switched tactics and decided to control reproduction through soft strategies such as education. By "educating" the public about the hereditary risks of dysgenic reproduction, eugenicists hoped that average citizens would begin to make eugenic choices voluntarily. In a long bet, Laughlin wagered the effectiveness of the clinic on the success of eugenic education: "The whole thing, so far as use and effect are concerned, would doubtlessly depend largely upon popular education."[93] Like the tactical insight behind Sanger's pamphlets and clinics, Laughlin proposed a modern strategy in the war over the nation's germplasm. Its object was no longer individual bodies (although these would continue to be swept up in the mayhem), but the discourse of reproduction itself. By influencing how people thought about reproductive hygiene, eugenicists could accomplish the same end without monitoring and maiming people's bodies.

Fourth, closely related to the previous similarity, all clinical advice had to be non-directive. By not instructing the client on what to do, the clinic would maintain its principle of collaboration and not invite any criticism. Whereas criticism of birth control clinics took the form of a claim of illegal activities, Laughlin most likely feared the Clinic's association with Nazi extermination programs, notably *Aktion T4*, since American public opinion was now turning against Hitler's regime. Even though inquirers to the ERO (who would likely become the Clinic's clients) sought "definite advice," Laughlin insisted on a strict policy of non-directive education:

> after the probability of inheritance of the subject-trait in the particular subject-mating is computed, and supplied to the applicant as a clinical service, it [a successful clinical outcome] would depend, of course, upon the voluntary action of the particular subject, or his or her advisor or guardian, whether or not the subsequent "marriage and reproduction-policy" of the particular subject is to be guided by knowledge of the probable outcome of heredity, based upon many trait-similar and family-distribution-similar human pedigrees.[94]

This approach, although similar to the pedagogical techniques of previous clinics, is notable for its insistence that informing the client is sufficient to complete the clinical service. This practice became the methodological foundation of the genetics clinics that sprang up in the 1940s and has continued to be an, if not *the*, essential therapeutic technique of medical genetics up until today. It was formally termed "genetic counseling" in 1947 by Sheldon C. Reed, a geneticist with close ties to the ERO.

Laughlin's "Clinic of Human Heredity" was never built, but it inspired the construction of several other genetics clinics and foreshadowed the clinical principles of patient autonomy, privacy, and non-directive counseling. His plan provides a crucial historical link between the voluntary, independent birth control clinics championed by Sanger and later genetics clinics. Throughout these clinical models, collaborative values of voluntary participation and education were consistently balanced with the rigid framing of reproductive choices within a medical model and the professional expectation of compliance. The rise of medical genetics in the 1940s and the professionalization of genetic counseling in the late 1960s further entrenched these conflicting strategies in clinical practice while preserving their eugenic heritage.

The Longevity of Paper Machines

Genetic counseling, or what had been previously termed "heredity counseling," was touted as a new form of medico-genetic clinical practice in the 1940s. A decade prior, the field of "medical genetics" was founded in order to diagnose and treat "diseases" that were believed to be hereditary, such as Huntington's chorea, harelip, and albinism. Bringing the history of the clinic full circle, biological research on heredity once again found its footing in medical practice, as Witmer had originally envisioned. In 1941, three separate genetics clinics were established to meet the practical needs of this burgeoning discipline: the Dight Institute of Human Genetics at the University of Minnesota, the Heredity Clinic of the University of Michigan, and the Bowman-Gray School of Medicine in North Carolina. They conducted research and offered reproductive advice to would-be parents who voluntarily attended the clinic. In the early stages, clinicians were conflicted about whether their advice should be directive (to fulfill some sense of eugenic responsibility) or not (to respect patient autonomy). By the end of WWII, non-directive genetic counseling established itself as a best practice and was theorized in journals and books by the then-director of the Dight Institute, Sheldon Reed.

Reed outlined his theory of genetic counseling in an influential textbook, *Counseling in Medical Genetics*. "The primary function of counseling," he wrote, "is to provide people with an understanding of the genetic problems they have in their families."[95] The pedagogical goal was simply to present clients with their chances for the reappearance of an "abnormality" in future offspring, then let the clients decide how to proceed. Although he admitted that clients' reproductive choices could be "eugenic" or "dysgenic," Reed insisted that a couple should never be dissuaded from procreating. In fact, he suggested that all clients should be *encouraged* to reproduce because the fact that they are worried about their genetic hygiene is already proof that they are "morally" superior to those who do not seek genetic advice.[96] In this way, genetic counseling was conceived as a means of positive eugenics, even if it explicitly disavowed this purpose.

Contrary to what the name suggests, genetic counseling was purported to be a medical practice. Despite its pedagogical rhetoric, it was also designed to prevent the spread of disease. The mandate to prevent sometimes contradicted the non-directive precept. For example, Reed notes a case in which a woman had given birth to two children with spina bifida. The woman's obstetrician sought out clinical advice in order to "make sure that this unpleasant situation won't occur again at the conclusion of his patient's third pregnancy." In other words, the obstetrician wished to receive a scientifically legitimate reason for sterilizing the woman. This kind of post-natal physician-directed sterilization was used on countless women, with uninformed or no consent, at the Los Angeles County-USC Medical Center throughout the 1960s and 1970s. Regardless of its new name, genetic counseling sometimes operated as a more covert form of eugenic education and intervention. By interpreting reproductive issues and choices as part of the medical domain, it prefigured disability as disease and, hence, undesirable. Nonetheless, eugenic prejudices concerning other social identities persisted in genetic counseling as well.

Scientists adamantly proclaimed that medical genetics and its clinical practice were far from the "gory excesses committed in the name of eugenics in the past."[97] They believed that an individual-centered, voluntary clinical practice was in every way the opposite of state-sponsored, compulsory eugenic programs that targeted entire classes and races. Addressing the race issue directly, Reed's textbook included a chapter on "Skin Color." In the chapter, he mentioned that research on "racial crosses" has great value for medical genetics, especially because most requests that the Dight Institute received had to do with the hereditary nature of skin color. These requests largely concerned couples seeking to adopt a child that was known to have some "colored blood."

The prospective foster parents were worried that either the child will grow up to appear non-white or that the non-white racial characteristics would be emphasized in the child's offspring. For these parents, the clinic offered several "diagnostic criteria" on whether the child (or child's children) would be able to pass, such as eye fold, hair texture, and nose width. In what would appear to be a break with the "gory excesses" of the past, Reed stated that interracial children, regardless of passing ability, are actually the "most vigorous and healthy stock generally available for adoption."[98] This praise, however, merely highlights the complex intersection of race and disability in eugenic discourse, as I have shown in previous chapters. Interracial children are desirable, according to Reed, only because those of the best stock are less likely to have been adopted already. It is thus *in spite of* their racial identity that the children are desirable choices for adoption.[99] This gesture is the verso of a biological racism that seeks to eliminate people of color for their presumed weakness and inferiority. Furthermore, it illustrates counseling practices more generally, in which clients are encouraged to reproduce *in spite of* any hereditary "defects" solely because their request for advice was proof of a superior moral fiber. The ultimate rubric for reproductive advice continues to be based on eugenic assumptions about fitness and social worth. These assumptions prefigured a homogeneity of race and disability within Reed's diagnostic criteria, so typical of early twentieth-century eugenic discourse, that subsumed both under the same general laws of heredity.

The genetics clinics of the early 1940s did not resolve, but merely re-inscribed the contradictions evident in preceding voluntary clinics, such as Sanger's CRB and Laughlin's Clinic of Human Heredity. The emphasis on patient privacy and client autonomy went hand-in-hand with the professional expectation that clients would follow sound medical advice. As long as they were sufficiently educated, clinicians believed, clients would select the most eugenic course of action. One biologist referred to this tactic as "jawboning," a soft form of persuasion.[100] Jawboning, an act in which the jaw becomes a literal instrument for the pursuit of eugenic goals, highlights the isomorphism of clinical practice between eugenicists and geneticists. Reed once declared: "Counseling in human genetics is the modern way of carrying on a program in Eugenics."[101] Another medical geneticist, William Allen, unequivocally termed his brand of genetic counseling "voluntary negative eugenics." In a similar vein, Reed said: "It could be stated as a principle that the mentally sound will voluntarily carry out a eugenics program which is acceptable to society if counseling in genetics is available to them."[102] In this way, genetic counseling was believed to serve a therapeutic as well as a diagnostic function. As in past clinics, the self-knowledge gained from information alone would be self-regulative. Thus, in spirit, purpose, and tactics, genetic counseling was eugenic education in all but name.

Genetics clinics like the Dight Institute represented an afterlife of the ERO in more ways than one. They continued its project of popular education while also building up a genetic database of the nation. In 1947, both Reed and Lee R. Dice, director of the Heredity Clinic in Michigan, wrote to Milislav Demerec, director of the Genetics Record Office (the new name of the ERO since 1939), regarding the family history records of the ERO. Both men had been receiving correspondence regarding family history records, marriage advice, and other issues that were redirected to the genetics clinics after the ERO closed. In a letter to Demerec, Dice expressed interest in acquiring the ERO records so that he could better assist those writing to him for advice.[103] In a response to one such inquiry later that year, Dice lamented not having access to those important records and affirmed that "a family record office is needed to serve the nation."[104] It would not be long before the ERO's records were serving "national" interests again.

Reed was more successful in acquiring the much-revered records. In his first query to Demerec, he asked for a simple loan of the records. Less than a month later after learning with "great pity" that the ERO records were not currently being used, Reed offered to take them all permanently in the form of a donation to the Dight Institute.[105] Demerec was willing to get the records off his hands, but could not pay for the shipping cost. Thus began a lengthy negotiation concerning the best way to get the records to Minnesota. An inventory reveals the logistical problem this collection presented. The ERO records contained over two million index cards and tens of thousands of folders of family history documents. The total collection, including the filing cabinets and card catalogs, weighed approximately 14,316 pounds. Reed ensured their safe transfer and utilized the records until at least the late 1970s. All correspondence to the ERO during that time was forwarded to Reed, who responded to the inquires by referencing the ERO records and even offered genetic counseling to inquirers. In 1977, he sent a short notice to Agnes C. Fisher, the secretary of the nearly defunct Genetics Record Office, concerning a recent move of the Dight Institute, including the ERO records, to a new address. In a hand-written postscript, he added: “We have much better facilities, including storage, now.”[106] Even decades later, Reed underscores the crucial value of the ERO records and the significance of their proper storage. They represent perhaps the only material continuity of eugenics after the rise of medical genetics, but one substantial enough to determine a parallelism of diagnostic methodology and therapeutic applications between the two disciplines, notably in the isomorphism of genetic counseling and eugenic education.

In addition to genetic counseling, medical geneticists continued to use ERO methods throughout the 1960s, including family history record forms, Galtonian biometry, pedigree charts, and city-wide eugenic surveys. In 1965, for instance, Reed and his wife, Dr. Elizabeth W. Reed, published a longitudinal study of mental disability entitled *Mental Retardation: A Family Study*. Using pedigree analysis and other methods directly inherited from the ERO, the Reeds analyzed 82,217 individuals through the creation of 121 pedigree charts. Short descriptions of each individual, identified by a number relative to their respective chart, mention genetically relevant details and sometimes include a diagnosis. In this way, the pedigree chart of early twentieth-century eugenics “migrated intact into medical genetics,” in the words of Alexandra Minna Stern.[107] This methodological continuity has led historian Nathaniel Comfort to describe the genetics clinics of 1941 as a “new, medically oriented kind of Eugenics Record Office.”[108] Indeed, even if it never materialized under its own name, Laughlin’s Clinic of Human Heredity became a reality not long after it was planned on paper. Throughout the 1950s and early 1960s, twenty-five more such genetics clinics “popped up like mushrooms” across the United States.[109] In the 1970s, new technologies for prenatal genetic testing, such as amniocentesis, made the paper tools of the ERO obsolete. Nevertheless, genetic counseling remains a vital clinical technique and has carried the prejudices of early twentieth-century eugenics into the twenty-first century.

One is able to pull back the curtain and observe the inner-workings of contemporary genetic counseling by looking at how it is taught to future counselors. Geneticist and historian of eugenics Elof Axel Carlson taught medical genetics to graduate students at Northwestern University from 1968 to 2000.[110] In 1984 he published a textbook based on this course which contains an illuminating chapter on genetic counseling. In a breakdown of the process, the first step of genetic counseling is to determine the pedigree. From this first step, the genetic counselor can jump right into informing the family about their risk figures and available options. The pedigree, along with the counselor's medical knowledge, is sufficient to assess a client's risk of reproducing an undesirable genetic defect. The counselor's responsibilities conclude, Carlson instructs, with giving an "oral quiz to check understanding."[111] Is it possible to assume that this oral quiz is benign? Or does it potentially exist to persuade the client of a "responsible" course of action? An example will help clarify its purpose.

In a section titled "Some, But Not All, Parents Are Psychologically Ready for Genetic Counseling," Carlson tells the story of a teenage mother who birthed a baby with Hurler syndrome, an enzyme deficiency with a life expectancy of around ten years. Both parents are carriers of the "mutant gene" that causes it, and have a 25 percent chance of recurrence. Carlson anticipates that this news may be enough to dissuade the mother from continuing her relationship with the baby's father (her boyfriend, at the time). If it is not, then he claims that "she will need advice on family planning, amniocentesis, and the genetics of Hurler syndrome." It is not clear from the information given if the mother actually needed family planning information, since Carlson does not mention if the baby was planned or not. The implication seems to be that the mother would choose not to get pregnant again given her genetic situation. If she does, however, she will need information on amniocentesis, an early form of prenatal testing.

Amniocentesis would be able to detect if the mother's fetus is likely to develop Hurler syndrome or not. How can this help the mother if she is already pregnant, though? According to Diane B. Paul, the legalization of abortion in the 1970s compounded the effectiveness of amniocentesis as a preventive measure by allowing women to abort fetuses with genetic defects.[112] Although genetic counseling has remained non-directive, the recommendation of amniocentesis implies the expectation that women will elect to abort so-called "defective" fetuses. This assumption may seem audacious, but geneticists were all-too-quick to integrate abortion into their "medical arsenal."[113] In a government-funded report on genetic technology and its implications for public policy completed just two months after the *Roe v. Wade* (1973) U.S. Supreme Court decision decriminalizing abortion, Mark S. Frankel describes abortion as the "only therapeutic alternative" for a pregnant woman who learns that her fetus has an incurable genetic disease, regardless of whether it will be fatal or not.[114] The report frequently combines prenatal diagnosis and abortion into a single strategy of negative eugenics that protects the gene pool from "deleterious genes." In his conclusion, Frankel, like Laughlin, affirms that "an educated public is essential" if early diagnosis and therapeutic alternatives such as abortion are to be successful in preserving the genetic hygiene of the nation.[115]

Carlson, likewise, presented abortion as the only therapeutic alternative: "The most acceptable solution, given our contemporary values, would be for those at risk [. . .] to undergo amniocentesis and abort fetuses shown to be defective."[116] He further recommends that they should limit their family size of "normal offspring" to below the national average in order to reduce the "genetic load," i.e., the amount of detrimental genes that the family (or any group) carries recessively. Reducing the genetic load is favorable, Carlson argues, not just for the family itself, but for the population as a whole. Once again, the eugenic motivations of inculcating the group from "defective" elements and optimizing the nation seep into clinical practice. In this way, genetic counseling, even in its non-directive form, expects clients to act eugenically, whether they already desire to or need to be "informed" about various risk figures and genetic concepts.

There is some evidence to suggest that genetic counselors are becoming aware of these prejudices and seeking to rectify them. A recent oral history of genetic counseling conducted by Stern hints at a significant shift occurring in the field. Since the professionalization of genetic counseling in 1969 with the creation of the first masters level program at Sarah Lawrence College, the vast majority of genetic counselors have been white, middle class women. Over the past couple decades, professors of genetic counseling became aware of this dearth of diversity and began to include readings in critical race theory and Disability Studies in their courses. Some of this curriculum has even filtered down to the high school level. These changes, while an improvement, have not yet had a serious impact on the practice of genetic counseling. Research on interactions between genetic counselors and clients has shown that counselors' personal biases continue to seep into their framing of a client's genetic risks and therapeutic options.[117] This issue has become all the more serious since the 1990s when debate over the non-directive principle of genetic counseling was renewed. Today, major medical geneticists argue that non-directive counseling is "crap" and "not helpful."[118] The progress the field has made toward social inclusion and respect for difference has largely been the result, as Stern points out, of parent activist and patient support groups.[119] The perspective of today's genetic counselors on disability, however, remains firmly rooted in the medical model of prevention.

The counselor can identify a potential life that is "unfit," but they expect the client to voluntarily act on this information. To a great extent, their "jawboning" has been successful in getting potential parents to think eugenically. In his textbook's conclusion, entitled "What Should We Do with Our Genes?", Carlson returns to the specter of the genetic load. He warns of dysgenic trends in the world. Among them is the increasing life expectancy levels of people in underdeveloped countries that have low literacy rates and living standards. This situation supposedly endangers the eugenic effects of assortative mating, i.e., the reproduction of the best with the best. This argument recalls the eugenic propaganda of the early twentieth-century that blamed improved living standards and social protections for an "unnatural selection" that counteracted the ameliorative effects of natural selection. Carlson's final recommendations to his students, the genetic counselors of today, do not mince words. All individuals with known hereditary defects or disabilities should not reproduce. Anyone who does decide to reproduce should "choose to reduce [the] genetic load by differential breeding."[120] Despite the dysgenic trends, Carlson observes that "[e]ugenic practices today are largely carried out at an unconscious level."[121] In this regard, the popular education campaigns of the American Eugenics Movement, and their continuation in the form of genetic counseling, can be considered a success.

The ERO closed its doors in 1939, but its paper tools and machines were preserved by medical geneticists who furthered its objectives of compiling a genetic database of the nation, providing marital and reproductive advice, and indirectly eliminating the dysgenic elements of the American germ plasm. The paper tools such as family trait forms and pedigree charts began to lose some of their diagnostic value with the creation of prenatal tests like amniocentesis in the late 1960s, but screening and elimination of possible disease and defect remained a cornerstone of medical genetics. Despite more sophisticated instruments, genetic counselors generally reiterate the ableist prejudices of eugenic discourse to their clients. By jawboning their clients, counselors continue the long history of eugenic education whose primary objective was self-regulation according to eugenic principles.

From Education to Perception

Over the course of the twentieth century, the fundamental technique of eugenic diagnosis and intervention shifted from field work to clinical practice. Early clinics demonstrated a cost-effective way of treating the population-at-large as well as soliciting its collaboration in public health programs. Sanger's successful campaign democratized the clinic model making it accessible to all and opening the possibility of it being replicated by anyone who had the economic means to do so. Eugenicists took notice in the late 1930s and early 1940s and founded genetics clinics with the express purpose of preventing hereditary "diseases." Like other clinics before it, the eugenic clinic interwove collaborative and pedagogical practices with coercive expectations. As part of their coercion, clinics collected detailed records on all patients, stored and processed them with the latest data technology, and used them as diagnostic and therapeutic tools. These data collecting practices represent the immediate precursor to contemporary digital predictive analytics and genetic information databases that are used to combat crime and disease. These databases have solved decades-long cold case homicides, but have also been used to stigmatize, for example, in the case of carriers of sickle-cell anemia, who are predominantly African-American. Like the clinical practice from which they stem, these tools are also used today by professionals like genetic counselors to stigmatize and inhibit the reproduction of persons with disabilities or anyone else deemed a burden on the genetic load.

The goal of eugenic education was not only to inform, but to persuade. Persuasive tactics utilized by medical professions exerted a kind of soft power on their clients that pressured them to act eugenically. By having the right kind of knowledge and foresight, the eugenicist assumed, a person would voluntarily self-regulate their reproduction as eugenically as possible. Education was thus conceived to be both a pedagogical and therapeutic tool as early as Galton. Later eugenicists, like O. F. Cook, would argue that non-directive eugenic education that instilled "eugenic perceptions and instincts" would be more successful at inspiring "the strongest motives of eugenic behavior" than direct instruction on one's eugenic responsibility.[122] Clinical practice enabled health care professionals, social workers, and activists to normalize and promote this kind of eugenic perception in the name of science, national efficiency, and, above all, patient autonomy.

The history of the eugenic clinic is the history of the victory of the American Eugenics Movement. Unlike other national eugenics movements that aimed for the elimination of entire populations, the American movement largely worked to capture the hearts and minds of the population-at-large in order to empower the average citizen to carry out a eugenic program voluntarily. Even after the horrors of the Holocaust, the taboo placed on the word "eugenics," and the social visibility and legal protections for minorities brought about by the Civil Rights and Disability Rights Movements, eugenic perceptions are as prevalent today as they were during the days that the ERO was active. In 1937, a *Fortune* magazine poll revealed that two-thirds of their readers supported compulsory sterilization of "mental defectives."[123] In an Associated Press poll from 2018, the same fraction responded that they would favor the use of gene-editing technology to prevent the births of those with detrimental hereditary conditions, even non-fatal ones including blindness.[124] Over eighty years later, the same perception persists: prevent the reproduction of those deemed by science or public opinion to be abnormal and thus “unfit” for life.

Although it has undergone various reconfigurations and taken on new names, concepts, and techniques, eugenic discourse has persevered for over one hundred years. It has substantially influenced how we think about ourselves, our relation to others, and health in general. Our bodies fall under intense medical and psychopathological scrutiny from birth to death. They are monitored by experts and public health authorities in order to control and eliminate signs of abnormality in both the individual and the population-at-large. The signs are not actual or even always evident, but interpreted through a statistical web of “markers” and “predispositions” that signify an individual’s potential for a condition or behavior, rather than its actual presence. This scrutiny reaches its peak when applied to the maternal body, where medical professionals are able to exert power of the individual and the population simultaneously. Such interventions invariably assimilate all abnormalities to a medical model of disease prevention. During the past hundred years, diagnostic and therapeutic technologies have witnessed tremendous innovation, empowering individuals more and more to regulate their own body. Our social beliefs and perceptions, on the other hand, lag behind.

6

Conclusion

> "Every one can share in the eugenics movement."[1]
>
> Charles B. Davenport

"My pedigree, my pedigree"

The introduction of the pedigree chart into eugenic discourse in the first decade of the twentieth-century initiated a century-long project that would eventually affix the logic of pedigree analysis to social understandings of health, reproduction, and identity. The power of the pedigree chart spanned from stock breeding contests in Iowa to the halls of the Supreme Court of the United States. Most interestingly, even those who wielded the paper tools and maintained the paper machines of various eugenic programs were not immune to its effects. In a 1921 newsletter written and circulated by trainees at the Eugenics Record Office (ERO), one would-be field worker penned "Ode to a Pedigree Chart," a poem expressing the aporetic nature of their profession:

The hours I've spent on thee, dear
chart
Are as a source of pain to me,
A million, more or less, are there,
My pedigree, my pedigree,

Each inch a race, each race a nation
Alcoholic traits and weakend lung
I count them over every one apart.
And there a FREAK is hung.

Oh! ancestors that wed three times
Oh! question mark and micro-head,
I look them over and strive at last
to learn

To live unwed.[2]

In studying heredity to learn how to best reproduce, the distressing truth revealed by the pedigree chart drove this field worker to never want to have children. One may find the conclusion a bit tongue-in-cheek, but this sentiment was sincerely shared by some, most notably the ERO's Superintendent Harry Laughlin who refused to procreate due to a family history of epilepsy.

From its restricted origins in biological science and social work, the pedigree chart and everything it stood for wiggled its way into the public imagination. Novels, magazines, newspapers, radio, movies, state fairs, and international exhibitions were replete with actual or symbolic pedigrees, often used to express the heredity of undesirable conditions. In this way, the pedigree chart was not just a paper tool, but a way of seeing and judging the value of life. A telling example from the trial of Frank Osborn, the subject of New York State's test case for its compulsory sterilization law, illuminates the diagnostic, therapeutic, and optical role of the pedigree chart.

During the trial, expert witness Lemon Thomson was called to testify. In the preliminary round of questioning, he laid out the facts he ascertained from Osborn's family members, neighbors, acquaintances, affidavits, and other official records concerning the supposed hereditary "feeble-mindedness" of Osborn. This line of questioning from the prosecution concluded with Thomson's recommendation that Osborn be sterilized by vasectomy in order to prevent him from reproducing more "feeble-minded" kin and to save the State the cost of caring for them. Thomson was then cross-examined by one Mr. Frost who, unlike Alice Smith's collaborationist defense attorney discussed in the Introduction, skeptically interrogated the diagnostic and epistemological value of the pedigree chart itself. It is worth following the back-and-forth from the beginning to see what Thomson eventually admits about pedigree analysis.

Mr. Frost begins by asking about the relevance of Osborn's family history in determining whether his physical and mental constitution could withstand the surgical procedure of vasectomy.

> Q. Did the question of the family history of the proposed subject bear any relation to the probable effect upon his physical system of the proposed operation?
> A. The history of the family bear any relation to the physical effect?
> Q. Yes.
> A. No, sir, I think not; no, sir.
> Q. Or any relation to the probable mental effect?
> A. No, sir.
> Q. Then the only relation which the family history bore in the determination reached by your board of the selection of a patient was to get a patient who had a bad family record, isn't that the fact?
> A. No.[3]

Since the family history had no bearing on Osborn's ability to undergo a vasectomy, it is unclear why Thomson presented it as evidence. Frost suggests that the family history was the primary evidence used in the decision to sterilize Osborn, despite any other evidence suggesting that Osborn would necessarily be the bearer of "feeble-minded" children. Thomson denied that the family record played such a weighty role, but begins to backtrack when Mr. Frost persists:

> Q. Well, now, what other relation then did the family history have to the selection of a patient?
> A. The selection of a patient who could by no possibility procreate a normal mental individual from the stock from which he came.
> Q. Then if you had a patient who was feeble-minded to a degree equal to that of Frank Osborn and you as a member of this board had to determine the question whether or not the operation should be performed would you be influenced in your determination by the family history of that patient?
> A. I would.
> Q. So that the degree of feeble-mindedness which you may find in a patient will not be the determining fact with you in a question of this character?
> A. Not to start with; would be more cautious; we don’t wish to get anyone that there could be any possible doubt as to his ability to procreate normal individuals mentally.

Thomson goes on to explain that the family history is used to ensure that Osborn could not possibly have any “normal” children. He thus admits that the family history does have some bearing on the diagnosis and therapeutic plan. Mr. Frost then underscores that Osborn is not being judged based on his ability alone, but that of his entire family. Thomson retorts that this “cautious” diagnosis protects normal individuals from being sterilized. If it was not evident by now, Thomson eventually admits that the pedigree chart alone is the determining factor in his diagnosis and recommended course of treatment:

> Q. Well, did your board in making this selection consider the question of the selection of a patient with what may be termed a bad family record?

> A. Why, not particularly. We talked that over. We had several to select from.
>
> Q. Well, didn't you as a matter of fact select a patient with a bad family record as came under your observation?
>
> A. It is bad enough.

In other words, the family record looks so "bad" upon viewing it that no further evidence is required to indict Osborn. This kind of diagnosis at a glance was the *modus operandi* of both pedigree analysis and characterology, explored in Chapters 1 and 2. The immediate visual recognition of deviance or degeneracy in a pedigree chart spurred similar, equivocal *at a glance* diagnoses of individuals in court rooms, immigration centers, hospitals, and beyond.

Eugenicists believed that the pedigree chart itself was an extremely useful device for popularizing eugenic perception. The ERO printed pedigrees of both eminent and "undesirable" families on quarter-sized sheets of paper to distribute at fairs, exhibits, and by mail. Thousands of copies of various pedigree sheets still exist in the archive at Cold Spring Harbor. These sheets were intended to teach the public how to see like a eugenicist. This tactic was reproduced in literary depictions of families and reproduction (see Chapter 3) and was later utilized in clinical practice when medical professionals and activists taught women about their bodies (see Chapter 4). The pedigree chart is emblematic of the social meanings eugenicists were successful at attaching to health, identity, and reproduction.

In the late 1960s, geneticists believed that they had sufficiently distanced themselves from the evils of eugenics. They began to call for a "new eugenics" that would alleviate human suffering without unpopular, coercive social programs. Today, sincere calls for eugenic improvement can still be heard, imploring individuals to exercise their free will eugenically. In the fields of medicine and genetics, researchers and clinicians continue to insist that recent reproductive and genetic technologies bear no resemblance to early twentieth-century eugenics. In this conclusion, I consider the merits of claims that a "new eugenics" has emerged that is diametrically opposed to the old eugenics, examine two examples of contemporary reproductive technology that have supposedly resisted eugenic discourse, and highlight the tension between reproductive autonomy and reproductive justice.

The Myth of the “New Eugenics”

In 1985, historian Daniel J. Kevles wrote that a “new eugenics” had appeared in the guise of medical genetics.[4] Although optimistic about its ability to distinguish itself from the old eugenics and accomplish its goal of alleviating human suffering, Kevles keenly noted its institutional and ideological hold-overs from early twentieth-century eugenics. After the turn of the twenty-first century, geneticists, psychologists, philosophers, psychiatrists, and legal and medical professionals celebrated the potential of the “new eugenics” to remake human life and society. With superficial denunciations of the old eugenics, these experts declared that the new eugenics was not only politically benign, but ethically imperative. Yet what precisely is so “new” about this brand of eugenics?

The virtually universal consensus is that the new eugenics respects individual autonomy, personal choice, and patient privacy. These concepts are repeatedly contrasted to the state-mandated sterilization and euthanasia programs of the mid-twentieth century. Psychologist Richard Lynn, in a study sponsored by the Pioneer Fund, a non-profit organization founded by Harry Laughlin, distinguishes “classical eugenics” from the “new eugenics.” According to Lynn, whereas classical eugenics applied crude notions of stock breeding to human reproduction, the new eugenics accomplishes the same goal (i.e. improving the human race) with state-of-the-art genetic technologies such as artificial insemination, prenatal diagnosis, in vitro fertilization (IVF), genetic engineering, and cloning. He believes that, while the core tenets and direction of classical eugenics was correct, its implementation was flawed. A proper implementation, says Lynn, would respect individual choice and require a positive public opinion of these technologies eugenic improvement is to occur in the population. Nevertheless, he stipulates in his conclusion that a compulsory “world eugenic program” involving both positive and negative measures will eventually be instituted by China after it ascends to global economic and military supremacy.[5]

Not all proponents of the new eugenics, however, have so voraciously quaffed the Pioneer Fund's Kool-Aid. Philosopher Nicholas Agar presents a measured defense of "liberal eugenics," which he contrasts, in standard fashion, to "authoritarian eugenics." He contends that "switching attention from races and classes of humans to individuals provides of version of eugenics worthy of defence."[6] More recently, geneticists, psychiatrists, legal professionals, historians, and others contributed to an anthology entitled *Davenport's Dream*. The anthology, published by Cold Spring Harbor Laboratory Press, included a reissue of the most infamous tract of American eugenics, Charles Davenport's *Heredity in Relation to Eugenics* (1911). Preceding a facsimile of Davenport's text was nearly two-hundred pages of predominantly laudatory essays by eminent scholars in various fields.[7] The forward, written by best-selling British journalist Matt Ridley, sets the tone of the entire volume:

> Davenport was correct to argue that segregating, sterilizing, and advising people on marriage could very gradually reduce the burden of disease and in society. There is no practical reason people could not be bred like cattle, dogs, or pigeons.[8]

He goes on to suggest that the cost of American eugenics programs greatly outweighed their benefits, but mainly due to their infringement on individual rights. "What is wrong with eugenics," he concludes, "is the authoritarian means, not the scientific ends."[9] As if the optics of republishing a eugenic screed were not bad enough, the scientific and medical elites at Cold Spring Harbor Laboratory once again advocate for segregation and sterilization, as long as it is voluntary!

Even astute historians of eugenics, like Nikolas Rose, have drawn a rigid boundary between the old and new eugenics. Rose presents the eugenics of the first half of the twentieth century as one focused on population control with a clear demarcation between positive and negative measures as well as voluntary and compulsory programs.[10] Its key concepts, he argues, were population, quality, territory, and nation, with "nation" being synonymous with "race." In this way, Rose is clearly describing the variety of eugenics that took root in Nazi Germany rather than its substantially different and earlier American version.[11] He goes on to contrast to this variety of eugenics a new form of biopolitical genetics that takes the "neurochemical self" as its object. In this new form, positive and negative eugenics, voluntary and compulsory measures, are intermingled in the practices of prenatal testing, genetic engineering, assisted reproductive technology (ART), and other biotechnical processes.

The claim of a "new eugenics," in all its manifestations, is fundamentally flawed. As I have shown, eugenics was and has always been focused on the individual. To say that eugenics is essentially preoccupied with class or race is to mistake its ideological claims for its discursive practices, concepts, techniques, and strategies. This error leads to absurd perspectives on the history of eugenics, such as Lynn's claim that Nazi extermination programs and concentration camps never had any eugenic motivations. He opines that the true purpose of the Nazi euthanasia program, *Aktion T4*, was "to save the expense of maintaining these patients."[12] This economic motive, however, was often an aspect of eugenic strategies that ultimately aimed at national and biological efficiency. When one looks at the practice of eugenic techniques, policies, and interventions, one gets a clearer picture of what eugenics actually was and attempted to accomplish. The eugenic project, in practice, always took the individual as its object.

In addition to the diagnostic and therapeutic focus on the individual, the "new eugenic" values of personal choice and patient privacy were also evident in early twentieth-century eugenic discourse. Popular eugenic education campaigns, Sanger's birth control clinics, and genetic counseling were all part of a broader tendency to inculcate the public with eugenic thinking. Experts in these fields believed that a well-educated public would voluntary choose to self-regulate their reproduction according to eugenic principles. As I presented in Chapter 4, self-regulation was the ultimate goal of eugenics from the very beginning as it was espoused by Francis Galton. Patient privacy, although a more common concern after the Second World War, was a concept evident in the operations of Sanger's Clinical Research Bureau, the first legal birth control clinic in the United States, and the advisory function of the ERO. Rose's contention that voluntary and compulsory measures were distinct in eugenics is patently false. In fact, it is the very ambiguity of these measures that persists in the contemporary practice of genetic counseling and constitutes the field's eugenic heritage.

Ultimately, the values of the "new eugenics" (autonomy, personal choice, and patient privacy) are not really new at all. They were in actuality defining concepts of the American Eugenics Movement. This fact has been underappreciated by scientists, scholars, medical practitioners, and activists, who believe that a healthy dose of self-determination is the antidote to the evils of eugenics.[13] In the next section, I consider two specific cases in which autonomy is portrayed as inherently anti-eugenic. I argue that autonomy is not a sufficient condition for the absence of eugenic intentions or consequences. This point is largely born out by the history of eugenics told throughout the four chapters of this book, but it is also one worth putting into the context of contemporary reproductive practices.

The Virtue of Autonomy in Reproductive Technology

Not long after the reproductive technology boom of the 1920s that allowed women to control the *quantity* of their offspring with improved quality of and increased accessibility to birth control devices, diagnostic techniques were invented for the purpose of monitoring and controlling the *quality* of potential offspring. Modern karyotyping, a process that results in a visual depiction of all 46 chromosomes, was developed in the mid-1950s. This technique is used to detect irregularities in the shapes of chromosomes, such as trisomy-21, the extra chromosome attached to the twenty-first pair that indicates Down's syndrome. Within less than a decade, karyotyping with the help of amniocentesis, a medical procedure that extracts amniotic fluid from a pregnant woman's womb, inaugurated the era of prenatal diagnosis (PND). Once the fetal fortress had been breached, its interior was laid bare to the medical gaze. Tissue sampling techniques and diagnostic tests began to proliferate. Now, there exist prenatal tests for thousands of diseases and conditions. These developments are often hailed as a hallmark of the women's health movement and the fight for reproductive rights. The decriminalization of abortion, which coincided with this new diagnostic regime, empowered women to decide not only if and when they have a child, but also what kind of child they will have. About a century ago, "New Women" like Margaret Sanger felt a similar empowerment with the advent of birth control. They ultimately linked this technology to eugenic campaigns for "better breeding." Likewise, contemporary forms of prenatal testing represent another significant expansion of reproductive choice, but is this wave of innovation also being swept up by political and social prejudice?

Medical professionals and philosophers answer this question with a resounding "no!" Hamish Anderson contends that the "lack of class bias" and "lack of coercion" in prenatal diagnostic technology distinguishes it from the eugenics of the early twentieth century.[14] Bioethicist Steven D. Edwards likewise stresses the supposed anti-eugenic values of this technology. He presents three common justifications for fetal selection and screening: it reduces suffering by preventing the births of disabled children; it alleviates the economic burden of caring for people with disabilities; it expands reproductive autonomy by giving women more information and choices with regard to their pregnancy.[15] He concludes that the last justification is the strongest and most effective against claims that PND is a eugenic procedure. If it increases choices and encourages autonomy, the reasoning goes, it cannot possibly have anything to do with coercive, state-sponsored eugenics programs.

This standard defense of PND is complicated by a more nuanced history of eugenics. As I have shown, eugenic campaigns were not only coercive and government-ordered, but also highly collaborative, popular, and grassroots-oriented. The lack of coercion is not a sufficient condition for the absence of eugenics. In fact, the principle of autonomy that encouraged women to self-determine the quantity and quality of their offspring was historically constituted alongside eugenic discourse and other medical structures that sought to eliminate disability. While this aspect of eugenics has not been adequately examined by historians, Disability Studies scholars have dealt with it quite extensively.[16] These scholars, who defend the right to abortion, undercut the assumption that women have a free choice in the medical context of prenatal care. Anne Kerr and Tom Shakespeare maintain that the kind of information provided to pregnant women, the attitudes of medical staff, and the routinization of prenatal testing exert social pressure on women to terminate fetuses that are not completely "normal."[17] These pressures are evident in the practice of genetic counseling, examined in Chapter 4.

In a similar fashion, feminist biologist Ruth Hubbard emphasizes that the concept of "choice" in such a context is void of value. Contrasting contemporary reproductive technology to coercive Nazi eugenics, she writes:

> In today's liberal democracies the situation is different. Eugenic principles are part of our largely unexamined and unspoken preconceptions about who should and who should not inhabit the world, and scientists and physicians provide the ways to put them into practice. Women are expected to implement the society's eugenic prejudices by "choosing" to have the appropriate tests and "electing" not to initiate or to terminate pregnancies if it looks as though the outcome will offend. [...] To the extent that prenatal interventions implement social prejudices against people with disabilities they do not expand our reproductive rights. They constrict them.[18]

Hubbard's argument that selective abortion, the termination of a pregnancy for a non-medical reason such as a positive diagnosis of a non-fatal condition, constricts rather than expands reproductive choice is essential to understanding the disability rights critique of PND and its relevance for the history of eugenics. After the Second World War, eugenicists took a greater interest in controlling how women reproduced and how society thought about reproduction more generally, rather than preventing the reproduction of the "unfit." As I explored in Chapters 3 and 4, women were motivated to think about their potential offspring in medical terms and to make use of every available resource to guarantee a "normal" child. In this context, an abnormal or disabled child is portrayed as necessarily suffering, a burden on its mother, and generally undesirable for society. Can a real choice be made under such duress?

Disability Studies scholar Marsha Saxton further elaborates on this issue of choice:

> I believe that at this point in history the decision to

> abort a fetus with a disability even because it "just seems too difficult" must be respected. A woman who makes this decision is best suited to assess her own resources. But it is important for her to realize this "choice" is actually made under duress. Our society profoundly limits the "choice" to love and care for a baby with a disability. This failure of society should not be projected onto the disabled fetus or child. No child is "defective." A child's disability doesn't ruin a woman's dream of motherhood. Our society's inability to appreciate and support people is what threatens our dreams.[19]

In addition to the pressures from medical professionals, women must contend with societal norms that deem disability a "tragedy" that should be avoided when possible. The pressure of these norms is compounded by the economic hardships faced by people with disabilities and parents of children with disabilities. As these groups report, such hardships are frequently the fault of social barriers restricting productive participation in society and not a result of the individual's impairment. Undoubtedly, these factors weigh on women who are forced to contemplate the incredibly difficult decision of terminating a desired pregnancy. Thus, scholars like Saxton contend that selective abortion is the product of a "failure of society" to provide equal support to mothers of children with disabilities, not the will of malicious mothers or coercive physicians.

This critique of reproductive choice has prompted some disability rights activists to oppose PND altogether. The Disabled People's International, for example, declared in 2000, "The underlying reason for pre-natal screening and testing is the elimination of the impaired foetus. This sends a discriminatory message to say that disabled people's lives are not worth living or worthy of support."[20] This argument has since been popularly supported and rejected as the "expressivist objection," which asserts that PND expresses a negative message about disability. Philosophers, feminists, and medical professionals commonly reject the reality or the value of such a "message," insisting that it is either not sent or is not compelling enough to infringe on a woman's reproductive autonomy.[21] Putting this debate in the context of the history of eugenics, it is wrong, I believe, to focus on the communicative aspect of PND. The more significant issue of the eugenic and ableist tendencies embedded in PND practices is not the message they send, but the population they eliminate, namely people with disabilities.[22] It is common to imagine eugenics as crematoria and the surgeon's scalpel, but it can be equally effected through screenings and counseling. As Troy Duster has noted, "When eugenics reincarnates this time, it will not come through the front door, as with Hitler's *Lebensborn* project. Instead, it will come by the back door of screens, treatments, and therapies."[23]

So, to answer the original question, on a holistic level PND often reiterates eugenic prejudices leading to a restriction of reproductive autonomy rather than its expansion. Proponents of PND sometimes acknowledge the issues raised by disability rights advocates, but double-down on their original defense: respect for autonomy will prevent the abuse of reproductive technology for eugenic purposes.[24] As this history of eugenics has shown, the principle of autonomy is part and parcel of the eugenic project. Eugenic discourse, instead of limiting choice, structures and encourages particular choices that it deems appropriate. These choices may change or widen, but they are consistently directed toward the elimination of the unfit. Since innovative technology and "better" science have only exacerbated this issue, any resistance to eugenic discourse must focus on its monopoly on the social understanding of health, reproduction, and disability. I conclude this section with two examples of such resistance that promote reproductive autonomy as a panacea for eugenic agendas.

The first example draws on Nikolas Rose's *The Politics of Life Itself.* At the top of a new section in the text, he begins by criticizing warnings about eugenics "through the backdoor," like Duster's cited above. New reproductive technology such as pre-implantation genetic diagnosis is not, he claims, the harbinger of a new eugenics. Rather, he optimistically writes that "biology is not destiny but opportunity [and the ability to] open oneself to hope."[25] Hope for what, exactly? Rose presents his ideal vision in clear terms:

> The nonimplantation of a potentially afflicted embryo is not to condemn a defective or inferior person to death; it embodies the hope that biological information may enable potential parents to maximize the chance that they will have a child who will lead a fulfilled life."

> The process Rose describes is none other than negative eugenics, the selection of embryos for fitness and the elimination of those deemed unfit.

In this neoliberal take on reproductive technology, Rose reiterates the false belief that autonomy is a sufficient condition for the absence of eugenics and its discriminatory practices. What is most interesting about his account, however, is where he draws the line between "inferior" and "fulfilled" lives. In the context of this discussion, Rose aligns vague examples such as "terminal illness" and "adverse reaction to a drug" to the category of inferior life. The only specific example he mentions is autism. At the time of his writing (2005), he mentions that a new genetic diagnostic test for autism would soon be available. Autism, perhaps included in what Rose later calls "troubled subjectivity," is the only concrete example he provides of an "afflicted embryo" that would produce a "defective or inferior person."

Today, not even twenty years later, the call to select out and eliminate people with autism would face overwhelming criticism. The reason is that, shortly after Rose's writing, social awareness of autism and associated conditions increased dramatically. Public education campaigns conducted by grassroots activists and non-profit groups made people with autism more visible and normalized the condition. In 2005, the nationally-recognized Autism Speaks organization was founded. Shortly after in 2007, the United Nations established World Autism Awareness Day (April 2). These initiatives were effective in decreasing the stigma associated with developmental disability. For example, comedian Amy Schumer has been very vocal about her husband's recent autism diagnosis, reporting that the symptoms of his autism were the personality traits that originally made her fall in love with him. Instead of backlash or awkward silence, Schumer's fans seem to appreciate and support her candor and openness. This shift in social sensibilities gives credence to disability rights advocates' claims that better education about and exposure to the lived realities of people with disabilities would reduce the stigma against them.[26]

The second example of resistance to eugenic discourse comes from historian of eugenics Paul A. Lombardo. In a recent editorial, Lombardo argued that the best solution for avoiding coercive medical intervention in patient's reproductive lives is to make reproductive technologies available to all. Citing examples such as the inaccessibility of IVF for low-income families and the decade-long delay of the release of the "Plan B" emergency contraceptive, he concludes that medical control over such technology has led to the failure to provide the full spectrum of reproductive choices to all. Instead of technologies guarded by a "medical gatekeeper," Lombardo praises "Do It Yourself" (DIY) techniques such as "turkey-baster babies" and "shoebox IVF." These techniques place all choice in the hands of the patient and completely circumvent the problem of inaccessibility and the threat of coercive medical paternalism.[27] And yet, DIY reproductive technology is just another solution that upholds individual autonomy against the contemporary reverberations of eugenic discourse, mistaking them for polar opposites. In reality, the DIY ethic was embedded in American eugenic practice from the day that the ERO opened its doors, offering in its printed announcement to send out family trait forms to interested volunteers so that they could learn about their heritage. In a troubling parallel to today's at-home genetic testing kits, the ERO even distributed rubber stamp kits for families to make their own pedigree charts.

In sum, the principle of autonomy is indifferent to the ethical ramifications of its application. For this reason, its exercise and protection cannot be considered wholly innocent, but susceptible to the insidiousness of eugenic discourse. Autonomous self-regulation has been a eugenic ideal since the days of Galton. It is not in autonomy, self-identity, self-determination, or any related concept that a critical response to eugenic discourse can be based. These concepts and their deployment in reproductive discourse presuppose the ownership, management, and (hygienic) responsibility that one has over one's body. A different conception of self, health, and reproduction is required. Some activists and scholars have proposed the notion of "reproductive justice" in light of the problematic nature of the discourse of reproductive choice. It is in reproductive justice, I argue, that one finally encounters an anti-eugenic conception of identity, reproduction, and disability.

Beyond Autonomy

"Reproductive justice" was first coined in 1994 by a group of Black women activists called "Women of African Descent for Reproductive Justice." Initially conceived as a counter-concept to "reproductive rights," reproductive justice strived to integrate the feminist demand for individual autonomy into a social justice framework that could form the basis for a popular movement. These activists specifically wanted to redraw the lines of the debate surrounding reproductive issues and make the discussion both broader (to address issues beyond abortion rights) and more inclusive (to deal with the particular reproductive issues faced by people of color, persons with disabilities and the LGBTQ community). Activist Loretta J. Ross, one of the original creators of the concept, has argued for the need to realign the sides of the debate. Instead of drawing party lines into "pro-choice" and "pro-life," Ross contends that the wide range of reproductive issues are better illustrated by contrasting those supportive of fertility control to those supportive of reproductive justice.[28] The difference, which I will go on to explain, is incisive for distinguishing eugenic from anti-eugenic reproductive positions.

Fertility control can take on many guises including, but not limited to, birth control, PND, infertility treatments, and policies of population control, but the strongest argument in its favor regards the right to "choice." The mainstream feminist movement, according to reproductive justice activists, often boils down complex reproductive social issues to a matter of choice. One choice in particular is emphasized: the choice to have an abortion. Ross and Rickie Solinger have argued that this term was useful to the movement in making abortion rights and reproductive autonomy "palatable" to middle class Americans, specifically by couching it in an economic lexicon.[29] Despite its wide appeal, women of color were frustrated by this individualist approach, as Ross explains:

> But we women of color felt that the abortion framework, the choice framework, was just too narrow a vessel to talk about the threat to women's lives. We're dealing with the Bush administration, an immoral and illegal war in Iraq, the Patriot Act, poverty—I mean, all these things would not be challenged by just talking about freedom of choice.

> I mean, if we made abortion totally available, totally accessible, totally legal, totally affordable, women would still have other problems. And so reducing women's lives down to just whether or not choice is available, we felt was inadequate. . . . It was really about choice and abortion. Not the right to have a child, but the right to terminate a pregnancy. That's all they wanted to talk about.[30]

As Ross points out, even if all of the issues surrounding the legality and accessibility of abortion were solved, women's reproductive lives are still highly dependent upon social factors such as poverty and discrimination. These factors greatly influence whether certain women view abortion as a choice or as a necessity. Scholar and activist Dorothy Roberts, for example, has linked this problem to eugenics by arguing that poor women who do not have access to emergency abortions (due to cost and the absence of public funding) are pressured into accepting long-term sterilization options (like Norplant and Depo-Provera). For this reason, the market concept of "choice" does nothing to dispel the eugenic logic of "more from the fit, less from the unfit."

The solution that both responds to "pro-life" conservativism and moves beyond the choice framework is one centered on justice. For activists, this means that three basic rights are respected: (1) the right to not have a child, (2) the right to have a child, and (3) the right to parent or raise a child. The last right presents the crux of the difference between the reproductive choice and justice frameworks. Whereas the choice framework is not concerned with what happens after delivery or termination, reproductive justice seeks to extend legal and social protection to the parent and child throughout the duration of their lives. This extension can take many forms, including anti-discrimination laws for working parents, guaranteed insurance coverage for the children of LGBTQ parents, welfare reform, or improved access to reproductive health education and care. In light of recent developments in reproductive technology, one could also add to this list universal education on diversity.

As I discussed above, Disability Studies scholars have shown that choice is severely limited, rather than expanded, by the use of contemporary reproductive technology. The market forces and social prejudices that determine, with the assistance of cost-benefit analysis, the desirability of one fetus over another largely depend on a deeply ingrained eugenic and ableist impulse. This impulse can be abated not by increased autonomy, which only exacerbates the issue, but through reproductive justice reform, like better education about the lives of people with disabilities. Such a principle underlies humanitarian Jean Vanier's L'Arche, an international organization which sponsors houses in which people with and without developmental disabilities live and learn from one another. Participants in these communities have reported attaining greater social understanding and empathy for those unlike themselves.

Reproductive justice adds another layer to the debate over PND and disability rights. These issues must not be reduced to a matter of choice, autonomy, or self-determination, because reproduction is more than a consumerist behavior. Feminist activists frequently find themselves in a double-bind when confronted with the problems of PND. For instance, Tabitha Powledge has said of pre-natal sex-selection:

> To forbid women to use prenatal diagnostic techniques as a way of picking the sexes of their babies is to begin to delineate acceptable and unacceptable reasons to have an abortion [. . .] I hate these technologies, but I do not want to see them legally regulated because, quite simply, I do not want to provide an opening wedge for legal regulation of reproduction in general.[31]

As one can see, the choice framework is unable to resolve the tension between discriminatory reproductive practices and the principle of autonomy. The problem, however, is neither selective abortion nor autonomy, but rather the discursive imbrication of these acts with eugenic principles and goals. Eugenic discourse, as I have shown, manifests in individuals' attitudes and actions. Thus, resisting eugenics requires one to address ableist attitudes, not regulate bodies. Reproductive justice provides a framework for combating discriminatory and violent exercises of genetic technology without resorting to legal prohibition, instead favoring a broader approach based on social justice reform.

This is not to say that eugenic discourse can be relinquished by simply changing one's opinion. The emergence, proliferation, and solidification of the discourse was the result of material and technical processes that cannot be just wished away. In addition to changing one's individual understanding of health, identity, and reproduction, it is necessary to amplify the personal narratives of persons with disabilities, share the history of eugenics with others, advocate for policies that support rather than eliminate social diversity, and forcefully dismantle the diagnostic and therapeutic tools of modern eugenics. Such activism can take the form of using a ransomware attack on Genetic Ancestry databases and giving the money to anti-racist and disability rights organizations, disrupting the public platforms of avowed eugenicists such as Charles Murray, sabotaging eugenically-oriented sperm banks, and generally making it as difficult and as unprofitable as possible to do the material work of eugenics. Everyone should have the right to have a child, to not have a child, to have prenatal testing done, and to resourcefully parent a child, but the principles of choice and autonomy, invested as they are in capitalism and eugenics, cannot secure these rights for all. For those who wish to challenge eugenic discourse, it is necessary to go beyond autonomy.

Notes

Notes

Acknowledgements

[1] "The Wolf and the Lamb, by John de La Fontaine," trans. Eli Siegel, accessed December 23, 2023, https://aestheticrealism.net/poems/the-wolf-and-the-lamb-by-jean-de-la-fontaine/. Throughout this study, all emphasis in quotations occurs in the original text unless otherwise noted.

Introduction

[2] These documents are included in Harry H. Laughlin, *Eugenic Sterilization in the United States* (Chicago: Psychopathic Laboratory of the Municipal Court of Chicago, 1922), 294 and 296.

[3] Ibid., 294.

[4] Ibid., 296. He further claims that the sexual encounter could not have been rape because "specialists on this subject have proven in extensive literature that it is practically impossible for one man to commit this crime unless the victim is insensible."

[5] On the metaphorical aspect of eugenic discourse, see Nancy Ordover, *American Eugenics: Race, Queer Anatomy, and the Science of Nationalism* (Minneapolis: University of Minnesota Press, 2003), 100-1.

[6] Historian of eugenics Michael A. Rembis, for example, points out that because of their later formulation by Nazi Germany, eugenic policies are sometimes interpreted through the lens of racial thinking ("Disability and the History of Eugenics," in *The Oxford Handbook of Disability History*, 85-103, eds. Michael Rembis, Catherine J. Kudlick, and Kim E. Nielsen (New York: Oxford University Press, 2018), 86). While race plays a significant role in eugenic discourse, gender, disability, and age are given equal weight. For this reason, Rembis suggests that a very different history of eugenics might be told if one begins with the assumption that a "more or less virulent ableism" underlies eugenic discourse rather than a "more or less virulent racism." This history would be noticeably different mainly due to the increasing amount of eugenic and genetic research on disability after 1945, which poses

a stark contrast to the waning of interest in the genetics of race. A history of eugenics from a Disability Studies point of view would be in fact, to use Rembis' term, a "long history" of eugenics. This book seeks to contribute to that project by tracing the continuity of eugenic diagnostic and therapeutic techniques from 1910 to the present day.

[7] Francis Galton, *Inquiries into Human Faculty and Its Development* (New York: MacMillan and Co., 1883), 24n1 and 44.

[8] Plato, *The Republic*, trans. G. M. A. Grube (Indianapolis: Hackett Publishing Co., Inc., 1992), 133-4.

[9] H. D. Rankin, "Plato's Eugenic ΕΥΦΗΜΙΑ and ΑΠΟΘΕΣΙΣ in Republic, Book V," *Hermes*, vol. 93, no. 4 (1965): 420. For examples of eugenics in other Platonic texts, see William W. Fortenbaugh, "Plato: Temperament and Eugenic Policy," *Arethusa*, vol. 8, no. 2 (Fall 1975): 283-305.

[10] English eugenicist Ferdinand Canning Scott Schiller opened his *Eugenics & Politics* (1926) with the line, "I cannot quite remember whether I was a eugenist before I read Plato's *Republic*, ever so many years ago; but I have been a convinced eugenist ever since." For an American eugenicist's take on Plato's relevance, see Henry Fairfield Osborn, *From the Greeks to Darwin: An Outline of the Development of the Evolution Idea* (New York: The MacMillan Company, 1908). On a prominent Nazi interpretation of Plato, see Simona Forti, "The Biopolitics of Souls: Racism, Nazism, and Plato," *Political Theory,* vol. 34, no. 1 (February 2006): 9-32.

[11] In an oft-quoted line, Galton declares that the first step in spreading eugenics nationally is to make of it an "academic question" (*Essays in Eugenics* (London: The Eugenics Education Society, 1909), 42). Scholars frequently take this passage to mean that eugenics must initially be practiced as a science. See, e.g. Marius Turda, *Modernism and Eugenics* (New York: Palgrave MacMillan, 2010), 20. The context, however, reveals that Galton is not making a declaration on the status of eugenics, but merely describing the steps that a Eugenics Society would go through in order to popularize eugenic thinking. The second step, unsurprisingly, is to develop a practical eugenic program. Further evidence demonstrating that Galton crafted eugenics as a political enterprise rather than an academic science is found in the opening paper of *Essays*, which was originally presented three years prior. He writes that eugenics "is smiled at as most desirable in itself and possibly worthy of academic discussion, but absolutely out of the question as a practical problem. My aim in this lecture is to show cause for a different opinion" (*Essays in Eugenics*, 2). Galton's preoccupation with *practical* eugenics is illustrated in nearly all of his projects and writings. I consider this topic further at the beginning of Chapter 4.

[12] Galton, *Essays in Eugenics*, 95.

[13] "The brains of the nation lie in the higher of our classes. If such people as would be classed W or X [i.e. those with the best qualities] could be distinguishable as children and procurable by money in order to be reared as Englishmen, it would be a cheap bargain for the nation to buy them at the rate of many hundred or some thousands of pounds per head." Ibid., 11.

[14] Michel Foucault, *The Archaeology of Knowledge,* trans. A. M. Sheridan Smith (New York: Pantheon Books, 1972), 49.

[15] Michel Foucault, “The Order of Things,” in *Aesthetics, Method, and Epistemology*, trans. Robert Hurley and others, ed. James D. Faubion (New York: The New Press, 1998), 267.

[16] Canguilhem’s methodology famously inspired Foucault’s “archaeological” method in the 1960s. More recently, it has experienced a twenty-first century resurgence, notably in the work of German historian of science Hans-Jörg Rheinberger.

[17] For a thorough account and assessment of this view, see Pierre-Olivier Méthot, “On the Genealogy of Concepts and Experimental Practices: Rethinking Georges Canguilhem’s Historical Epistemology,” *Studies in History and Philosophy of Science*, vol. 44 (2013): 112-123.

[18] Georges Canguilhem, *Études d’histoire et de philosophie des sciences: concernant les vivants et la vie* (Paris: Vrin, 2002), 18. My translation. More directly, he states later on that “every science is a branch of culture.” Ibid., 235.

[19] Ibid., 19. My translation.

[20] On non-linearity, see Canguilhem’s discussion of the myth of the precursor in “L’Objet de l’histoire des sciences,” *Études,* 21-3. Canguilhem often examines the theme of disunity in terms of how the meaning of a concept varies between disciplines or at different times within the same disciplines. See ibid., 143-155; Georges Canguilhem, *La formation du concept de réflexe aux XVIIe et XVIIIe siècles* (Paris: PUF, 1955).

[21] Canguilhem, *Études*, 14. My translation.

[22] Georges Canguilhem, *Ideology and Rationality in the History of the Life Sciences,* trans. Arthur Goldhammer (Cambridge: MIT Press, 1988), 9 and 11.

[23] I borrow this term from Hans-Jörg Rheinberger’s *Toward a History of Epistemic Things: Synthesizing Proteins in the Test Tube* (Stanford: Stanford University Press, 1997).

[24] "The history of the sciences can certainly distinguish between and admit several levels of objects in the specific, theoretical domain that it constitutes: documents for cataloging; instruments and techniques for describing; methods and questions for interpreting; concepts for analyzing and criticizing." Canguilhem, *Études*, 19. My translation.

[25] See Michael Foucault, “Introduction,” in *The Normal and the Pathological*, trans. Carolyn R. Fawcett (New York: Zone Books, 1991). Despite the prominence of this criticism, even a cursory reading of *The Normal and the Pathological*, Canguilhem’s most celebrated text, will show a deep preoccupation with power asymmetries and the issue of stigmatization.

[26] Georges Canguilhem, *The Normal and the Pathological*, trans. Carolyn R. Fawcett (New York: Zone Books, 1991), 40 and 105.

[27] Ibid., 41 and 122.

[28] Ibid., 109-12.

[29] Ibid., 121.

[30] Ibid., 120.

[31] An excellent survey of Canguilhem's influence can be found in Kevin Gotkin, "The Norm___and the Pathological," *Disability Studies Quarterly*, vol. 36, no. 1 (March 2016), doi: 10.18061/dsq.v36i1.4281. Gotkin demonstrates that, while Canguilhem is frequently cited in Disability Studies, his arguments are rarely taken up in earnest. Some scholars have claimed that Canguilhem does not write about disability, and his only real contribution to the field is the normal-pathological distinction. Although he does not often use the term "disability," Canguilhem is consistently interested in impairment and its stigmatization by medical authorities. I agree with Gotkin that Disability Studies scholars would benefit from a more direct engagement with Canguilhem.

[32] Lennard J. Davis, *Enforcing Normalcy: Disability, Deafness and the Body* (New York: Verso, 1995), 23-49.

[33] Sharon L. Snyder and David T. Mitchell, *Cultural Locations of Disability* (Chicago: University of Chicago Press, 2006), 70-1.

[34] Jay Timothy Dolmage, *Disabled Upon Arrival: Eugenics, Immigration, and the Construction of Race and Disability* (Columbus: Ohio State University Press, 2018); Douglas C. Baynton, *Defectives in the Land: Disability and Immigration in the Age of Eugenics* (Chicago: University of Chicago Press, 2016); Michael A. Rembis, *Defining Deviance: Sex, Science, and Delinquent Girls, 1890–1960* (Urbana: University of Illinois Press, 2011).

Pedigree Analysis

[1] "America" denotes a land mass of two continents, though it also connotes one nation in particular, the United States. This synecdochic violence historically has served to erase people of color, especially those in the Global South, from consideration in "American" matters. Throughout this study, I will use the term "America" to signify a certain conception of the United States in cultural imagination. It will soon become clear that "America" and "Americanness" were key signifiers for the development of eugenic thought in the United States. This conception of America, however, was not restricted to nativist political discourse. In regard to the current context, one need only recall jazz drummer Art Blakey's famous quip, "No America, no jazz."

[2] Charles Darwin, *The Descent of Man, Selection in Relation to Sex,* vol. 1 (New York: D. Appleton and Company, 1871), 193. The adjective "savage," here and in general, was used to mark racial difference. In *Origins*, Darwin argued that selective breeding of animals was practiced even by the "lowest savages," specifically, South Africans, "Eskimos," and "the negroes in the interior of Africa who have not associated with Europeans." Charles Darwin, *Origin of Species by Means of Natural Selection, Or the Preservation of Favored Races in the Struggle for Life* (New York: P. F. Collier & Son, 1902), 62.

[3] Charles Darwin, *The Descent of Man, Selection in Relation to Sex,* vol. 2 (London: John Murray, Albemarle Street, 1871), 405.

[4] Darwin, *Descent*, 1:106-7.

[5] Eugenicists' opinions on this topic changed quickly. See Alexander Graham Bell, "A Few Thoughts Concerning Eugenics," *Journal of Heredity*, vol. 4, no. 1 (January 1908): 209; Alexander Graham Bell, "How to Improve the Race," *Journal of Heredity*, vol. 5, no. 1 (January 1914): 2; and Laughlin's commentary on this metonymy and the need for a "state of eugenic consciousness and responsibility" with regard to human affairs in "The Science and Practical Application of Eugenics," *Journal of Heredity*, vol. 13, no. 2 (February 1922): 96n5.

[6] Richard Hofstadter, *Social Darwinism in American Thought* (New York: G. Braziller, 1965), 4-5.

[7] For those works in which this claim is most evident, see Roberto Esposito, *Bios: Biopolitics and Philosophy*, trans. Timothy Campbell (Minneapolis: University of Minnesota Press, 2008); Nikolas Rose, *The Politics of Life Itself: Biomedicine, Power, and Subjectivity in the Twenty-First Century* (Princeton: Princeton University Press, 2007); Michel Foucault, *"Society Must Be Defended": Lectures at the Collège de France, 1975-76,* trans. David Macey, eds. Mauro Bertani and Alessandro Fontana (New York: Picador, 2003).

[8] The view that Mendelism was the scientific impetus and hereditarian paradigm of a major part of the American Eugenics Movement is virtually universal in the scholarship: Philippa Levine, *Eugenics: A Very Short Introduction* (Oxford: Oxford University Press, 2017), 4; Molly Ladd-Taylor, *Fixing the Poor: Eugenic Sterilization and Child Welfare in the Twentieth Century* (Baltimore: Johns Hopkins University Press, 2017), 13; Marius Turda, *Modernism and Eugenics* (New York: Palgrave MacMillan, 2010), 120; Mark A. Largent, *Breeding Contempt: The History of Coerced Sterilization in the United States* (New Brunswick, NJ: Rutgers University Press, 2008), 10; Paul A. Lombardo, *Three Generations, No Imbeciles: Eugenics, the Supreme Court, and* Buck v. Bell (Baltimore: The Johns Hopkins University Press, 2008), 30; Christina Cogdell, *Eugenic Design: Streamlining America in the 1930s* (Philadelphia: University of Pennsylvania Press, 2004), 45; Daylanne K. English, *Unnatural Selections: Eugenics in American Modernism and the Harlem Renaissance* (Chapel Hill: University of North Carolina Press, 2004), 38-9; Edwin Black, *War Against the Weak: Eugenics and America's Campaign to Create a Master Race* (New York: Four Walls Eight Windows, 2003), 31; Steven Selden, *Inheriting Shame: The Story of Eugenics and Racism in America* (New York: Teachers College Press, 1999), 2-3; Daniel J. Kelves, *In the Name of Eugenics: Genetics and the Uses of Human Heredity* (Cambridge: Harvard University Press, 1995), 41-4; Diane B. Paul, *Controlling Human Heredity: 1865 to the Present* (Amherst: Humanity Books, 1995), 48 and 51; Philip R. Reilly, *The Surgical Solution: A History of Involuntary Sterilization in the United States* (Baltimore: The Johns Hopkins University, 1991), 31. Some scholars trace back the most horrendous aspects of eugenics (e.g. compulsory sterilization) to Mendelism: Alexandra Minna Stern, *Eugenic Nation: Faults and Frontiers of Better Breeding in Modern America* (Berkeley: University of California Press, 2005), 16; 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), 20; Allen Chase, *The Legacy of Malthus: The Social Costs of the New Scientific Racism* (New York: Alfred A. Knopf, 1977), 117, 128, 191. In only one case that I have encountered is Mendel's influence questioned: Elof Axel Carlson, *The Unfit: A History of a Bad Idea* (Cold Spring Harbor, NY: Cold Spring Harbor Laboratory Press, 2001), 338. Carlson correctly points out that, despite Mendelism's incongruence with "like-for-like" heredity, eugenicists often conflated the two in practice.

[9] Of course, this emphasis did not preclude the management of actual reproduction. My point is that such interventions (e.g. segregation to inhibit sexual activity or sterilization) were primarily motivated by concerns about an individual's hereditary potential. This fact is evident in the many cases where completely asymptomatic individuals are forced to undergo sterilization or some other procedure for the sole reason that a dysgenic trait may manifest in them later or in their children. The story of Alice Smith, which I recount at the beginning of the introduction, is one such example.

[10] Charles B. Davenport and Harry H. Laughlin, "How to Make a Eugenical Family Study," *Eugenics Record Office Bulletin,* no. 13 (Cold Spring Harbor: Eugenics Record Office, 1915), 32.

[11] Robert M. Yerkes and Daniel W. LaRue, *Outline of a Study of the Self* (Cambridge: Harvard University Press, 1914), 2.

[12] George E. Partridge, "Studies in the Psychology of Alcohol." *The American Journal of Psychology*, vol. 11, no. 3 (April 1900): 319. This research was later expanded into the book, *Studies in the Psychology of Intemperance* (New York: Sturgis & Walton Company, 1912). On Lombroso's relation to eugenics, see Nicole Hahn Rafter, *Creating Born Criminals* (Urbana: University of Illinois Press, 1997).

[13] Ibid.

[14] Georges Canguilhem, *The Normal and the Pathological*, trans. Carolyn R. Fawcett (New York: Zone Books, 1991), 40 and 105.

[15] Ibid., 43.

[16] Partridge, "Studies in the Psychology of Alcohol," 367.

[17] "Indeed it seems inevitable that ultimately a broad biological method must be adopted (based upon a monistic philosophy) in which the individual is the unit, and in which psychological and physiological data will be placed on equal terms and supplement or mutually explain each other." Ibid., 368.

[18] For a review of scholarship on self-psychology during the turn of the century, see Mary Whiton Calkins, "The Self in Recent Psychology: A Critical Summary," *The Psychological Bulletin*, vol. 16, no. 4 (April 1919): 111-119.

[19] George E. Partridge, *An Outline of Individual Study* (New York: Sturgis & Walton Company, 1910), 15.

[20] "Some authors believe it to be as much the function of the reproductive system to produce individual differences, or very slight deviations of structure, as to make the child like its parents. But the much greater variability, as well as the greater frequency of monstrosities, under domestication or cultivation, than under nature, leads me to believe that deviations of structure are in

some way due to the nature of the conditions of life, to which the parents and their more remote ancestors have been exposed during several generations." Charles Darwin, *The Origin of Species*, 164.

[21] Gertrude C. Davenport and Charles B. Davenport, "Heredity of Eye-Color in Man," *Science*, vol. 26, no. 670 (November 1907): 589-592.

[22] Partridge, *Outline*, 3, 38-41. Later, Partridge explicitly names the body as the focal point of individual-study: "Detailed study of the body cannot fail to give to an observer a sense of the great complexity of personality, and its great variability." Ibid., 68.

[23] Ibid., 22. See also 70-1.

[24] Ibid., 25, 48-9.

[25] Jacy L.Young, "The Biologist as Psychologist: Henry Fairfield Osborn's Early Mental Ability Investigations," *Journal of the History of the Behavioral Sciences*, vol. 48, no. 3 (Summer 2012): 201.

[26] Ursula Klein, *Experiments, Models, Paper Tools: Cultures of Organic Chemistry in the Nineteenth Century* (Stanford: Stanford University Press, 2003).

[27] Stephen Jay Gould, *The Mismeasure of Man* (New York: W. W. Norton & Company, 1996), 195.

[28] For Yerkes, this partnership was more than intellectual. Davenport was one of Yerkes' professors during his undergraduate education and the two continued to correspond for sixty years.

[29] Partridge, *Outline*, 232.

[30] Eugenicists optimistically hoped that temperament could be distilled to a single trait, but they also sometimes acknowledged that it was more complicated. In Chapter 2, I probe this controversy further by examining the notion of "character," which was said to be the unitary manifestation of a manifold of temperamental traits.

[31] Contrary to the traditional interpretation that Dugdale believed crime was the result of hereditarian *and* environmental forces, he explicitly argues that environment is an expression of heredity: "The tendency of heredity is to produce an environment which perpetuates that heredity." Richard L. Dugdale, *The Jukes: A Study in Crime, Pauperism, Disease and Heredity* (New York: AMS Press, 1975), 65.

[32] I am referring to Arthur H. Estabrook's *The Jukes in 1915*, which is an analysis and expansion of Dugdale's original work that downplays Dugdale's hope that the "Jukes" and other families like them could be rehabilitated.

[33] Ibid., 11, 113-4.

[34] Henry H. Goddard, "Heredity of Feeble-Mindedness," *Eugenics Record Office Bulletin,* no. 1 (Cold Spring Harbor: Eugenics Record Office, 1911), 1.

[35] Laughlin, for example, claimed that Dugdale's work was "a generation ahead of its time." Harry H. Laughlin, "Report on the Organization and the First Eight Months' Work of the Eugenics Record Office," *Journal of Heredity*, vol. 2, no. 2 (April 1911): 111-2.

[36] Frederick Adams Woods, "Some Desiderata in the Science of Eugenics," *Journal of Heredity*, vol. 5, no. 1 (January 1909): 246.

[37] Charles B. Davenport, “Report of Committee on Eugenics,” *Journal of Heredity*, vol. 1, no. 2 (April 1910): 127-8.

[38] Laughlin, “Report,” 108.

[39] Ibid.

[40] The family study genre would later be remade by eugenicists to underscore the role of heritable traits. A notable example of this revision can be found in A. H. Estabrook’s *The Jukes in 1915*, which reinterprets Dugdale’s findings.

[41] Davenport, “Report,” 127.

[42] Ibid. On Davenport’s broader aspirations to centralize research on heredity, see Allen, “The Eugenics Record Office,” 227-36.

[43] “An Office for Eugenics Records,” *Journal of Heredity*, vol. 1, no. 2 (April 1910): 145.

[44] Charles B. Davenport, “The Trait Book,” *Eugenics Record Office Bulletin,* no. 6 (Cold Spring Harbor: Eugenics Record Office, 1919), 129. The number and phrasing of these functions change over the years, but indexing hereditary information is always predominant.

[45] “The Field of Eugenics,” *Journal of Heredity*, vol. 2, no. 2 (April 1911): 141.

[46] Harry H. Laughlin, “The Relation of Eugenics to Other Sciences,” *The Eugenics Review*, vol. 11, no. 2 (July 1919): 54.

[47] “Meeting of the Eugenics Section,” *Journal of Heredity*, vol. 1, no. 4 (October 1910): 305.

[48] Davenport and Laughlin, “How to Make a Eugenical Family Study,” 4.

[49] Ibid., 6.

[50] Levine, *Eugenics*, 4.

[51] Stern, *Eugenic Nation*, 16.

[52] Diane B. Paul and Barbara A. Kimmelman, “Mendel in America: Theory and Practice, 1900—1919,” in *The American Development of Biology*, eds. Ronald Rainger, Keith R. Benson, and Jane Maienschein (Philadelphia: University of Pennsylvania Press, 1988).

[53] Ibid., 283.

[54] For a detailed history of the ABA, see Barbara A. Kimmelman, “The American Breeders’ Association: Genetics and Eugenics in an Agricultural Context, 1903-13,” *Social Studies of Science*, vol. 13, no. 2 (May 1983): 163-204.

[55] See, for example, Chas. E. Woodruff, “Prevention of Degeneration the Only Practical Eugenics,” *Journal of Heredity*, vol. 3, no. 1 (January 1907): 247-252.

[56] David Starr Jordan,“Report of the Committee on Eugenics,” *Journal of Heredity*, vol. 4, no. 1 (January 1908): 201.

[57] On Davenport’s critical role in securing funding and other support for eugenic institutions, publications, and research, see Garland E. Allen, “The Eugenics Record Office at Cold Spring Harbor, 1910-1940: An Essay in Institutional History,” *Osiris*, vol. 2 (1986): 225-264.

[58] Charles B. Davenport, “Heredity and Mendel’s Law,” *Proceedings of the Washington Academy of Sciences,* vol. 9 (July 1907): 182.

[59] Charles B. Davenport, *Heredity in Relation to Eugenics* (New York: Henry Holt and Company, 1911), iii.

[60] Ibid., 18.

[61] Francis Galton, "Francis Galton letter to William Bateson, commenting that knowledge of heredity would be of little practical help to eugenics progress (6/12/1904)," ID #2201, Image Archive on the American Eugenics Movement, Dolan DNA Learning Center. Accessed on April 18, 2018. http://www.eugenicsarchive.org/eugenics/image_header.pl?id=2201.

[62] See Francis Galton, *Essays in Eugenics* (London: The Eugenics Education Society, 1909), for numerous examples of the types of social programs and incentives that Galton proposed.

[63] O. F. Cook, "Mendelism and Other Methods of Descent," *Proceedings of the Washington Academy of Sciences*, vol. 9 (July 1907): 191. This paper was presented in direct response to Davenport's lecture on "Heredity and Mendel's Laws."

[64] O. F. Cook, "Heredity and Cotton Breeding," Bulletin No. 256, *U.S. Department of Agriculture: Bureau of Plant Industry* (Washington: Government Printing Office, 1913), 10.

[65] O. F. Cook, "Aspects of Kinetic Evolution," *Proceedings of the Washington Academy of Sciences*, vol. 8 (February 1907): 197.

[66] Elof Axel Carlson, *The Unfit: A History of a Bad Idea* (Cold Spring Harbor, NY: Cold Spring Harbor Laboratory Press, 2001), 338.

[67] Davenport, Laughlin, et al., "The Study of Human Heredity," 4 and 7.

[68] Ibid., 7.

[69] Ibid., 9.

[70] Ibid., 32.

[71] Ibid., 33.

[72] Garland E. Allen, "The Eugenics Record Office at Cold Spring Harbor, 1910-1940: An Essay in Institutional History," *Osiris*, vol. 2 (1986): 225-264.

[73] Ibid., 226.

[74] On this definition, see Harry H. Laughlin, *Eugenic Sterilization in the United States* (Chicago: Psychopathic Laboratory of the Municipal Court of Chicago, 1922), 362.

[75] Gould, *Mismeasure*, 187.

[76] Nancy Ordover, *American Eugenics: Race, Queer Anatomy, and the Science of Nationalism* (Minneapolis: University of Minnesota Press, 2003), 100-1.

[77] Ibid., 90.

[78] Ibid., 124.

[79] Gregory Michael Dorr, *Segregation's Science: Eugenics and Society in Virginia* (Charlottesville: University of Virginia Press, 2008), 138.

[80] Most eugenicists outwardly argued for a Mendelian view of heredity despite implicitly acting on a more recticular view. This tendency, however, eventually began to change. By 1938, Laughlin was presenting a form of analysis that he called "actuarial genetics," which combined the physico-chemical analysis of blood, pedigree analysis, and statistical analysis in order to diagnose a propositus. Despite not using the term, actuarial

genetics relied on a "recticular" view of heredity. In a telling passage, Laughlin contrasts it to Mendelian analysis: "Actuarial genetics is more practicable for the prediction, that is, the computation of the probability, that a given diagnosable or measurable human quality will appear in the subject-individual. This is true because most specific subject-traits are based upon not one but a number of genes, or, in the course of development of the subject-trait a number of genes or their somatic products interact with each other to modify the basic trait. Another factor which *makes direct Mendelian prediction difficult*, but which may be attacked successfully by the actuarial method, consists, in most families, in the *wide distribution* of these several basic and modifying genes of the subject-trait *among many of the antecedent near-blood kin.* In such cases actuarial genetics finds and uses parallel family-trait distribution-patterns as the basis of prediction." Harry H. Laughlin, "A Clinical Service in Human Heredity," 1 July 1939, Box 5, File 1, Eugenics Record Office Collection, Cold Spring Harbor Laboratory Library & Archives, Cold Spring Harbor, New York, 5-6. My emphasis.

Characterology

[1] There have been many different conceptions of "character" since Aristotle famously located character building at the center of his ethics. In addition to moral character, the term could also refer to personality, reputation, originality, a fictional representation, or a species-specific trait. The psychological and eugenic conception of character, which I will spend the length of this chapter exploring, incorporates most of these definitions. What differentiates it from previous conceptions of character is its firm hereditarian basis.

[2] Nikolas Rose has explored the connections between psychology, normalizing techniques, and eugenics from a Foucauldian perspective in his *Inventing Our Selves: Psychology, Power, and Personhood* (Cambridge: Cambridge University Press, 1998). However, his focus, taking on various national contexts across a span of nearly a century, is too broad. Character analysis is mentioned only twice in lists of examples. Regardless of its focus, a deeper, methodological problem is at the core of Rose's research. Despite attempting to chart the technical nature of eugenic discourse, Rose restricts himself to, what I would call, macro-techniques of normalization, such as calculation, space management, authority, self-improvement, stigmatization, rejuvenation, professionalization, and extermination. Each of these macro-techniques involves a heterogeneous ensemble of concepts, policies, institutions, and practices that vary depending on national context. This ensemble constitutes what I would call micro-techniques. In Chapter 2, I endeavor to analyze the micro-technique of character analysis (which, itself, is composed of a manifold of tests, questionnaires, schematizations, and devices). A close analysis of micro-techniques reveals how eugenic discourse constituted itself in the sciences and was deployed more broadly. This form of analysis is largely missing from theories of biopolitics and histories of eugenics, which is the reason why, as I have already argued, that

previous studies misinterpret eugenic discourse.

[3] This distinction between character and temperament is a working generalization. More precisely, paper tools equivocated about the status of temperament, sometimes reducing it to a single "blank" and other times assessing it with a lengthy list of dichotomous traits. Part of the reason for the equivocation is that psychology as a discipline was still in its infancy during this period and would not have a standard vocabulary for these issues for several decades. More historical research on these concepts is required to better differentiate them.

[4] Michel Foucault, *Psychiatric Power: Lectures at the Collège de France, 1973-1974*, eds. Jacques Lagrange, trans. Graham Burchell (New York: Picador, 2003), 86, 202, and 222.

[5] Foucault, *Abnormal*, 310-2.

[6] It has been suggested that this hereditarian view is implicit in or returns to the rhetoric of blood, including the one-drop rule discussed below. One sees the radical difference in these conceptions by looking at the technique of racial identification. In terms of blood, having at least "one drop" of non-white blood would be identified by tracing an individual's genealogy in order to find a non-white ancestor. This ancestor was known to be non-white because of their skin color. Thus, this conception of racial "blood" is reducible to skin color. Such is not the case with hereditary character, as I will show in this chapter.

[7] Allan Chase, *The Legacy of Malthus: The Social Costs of the New Scientific Racism* (New York: Alfred A. Knopf, 1977).

[8] Ibid., 4.

[9] Ibid., 11.

[10] Ibid., 11-2.

[11] Nicole Hahn Rafter, "Introduction," in *White Trash: The Eugenic Family Studies, 1877-1919*, ed. Nicole Hahn Rafter (Boston: Northeastern University Press, 1988).

[12] Interestingly, Gobineau publicly defended the opposite view, known as monogenism, the belief that all human races had a common ancestry and were a single species. Despite this position, Gobineau's text was highly influential for the competing polygenic theory of humankind, discussed below. On his religious justification for monogenism and his "de facto polygenesis," see James W. Ceaser, *Reconstructing America: The Symbol of America in Modern Thought* (New Haven: Yale University Press, 1997), 98.

[13] For a detailed account of the "American School," especially Nott's role in it, see Andrew Dewbury, "The American School and Scientific Racism in Early American Anthropology," in *Histories of Anthropology Annual*, Vol. 3, eds. Regna Darnell and Frederic W. Gleach (Lincoln: University of Nebraska Press, 2007).

[14] Quoted in Gould, *Mismeasure of Man*, 76-7.

[15] Ibid., 78.

[16] Ibid., 81. My emphasis.

[17] Ariela J. Gross, *What Blood Wont Tell: A History of Race on Trial in America* (Cambridge: Harvard University Press, 2008), 36.

[18] Gordon S. Wood, *Empire of Liberty: A History of the Early Republic, 1789–1815* (Oxford: Oxford University Press, 2009), 541.

[19] Winthrop D. Jordan, *White over Black: American Attitudes towards the Negro, 1550-1812* (Baltimore: Penguin Books, 1973). See also Jordan's posthumously published article, "Historical Origins of the One-Drop Racial Rule in the United States," *Journal of Critical Mixed Race Studies*, vol. 1, no. 1 (January 2014): 98-132.

[20] See, for example, Thomas K. Nakayama and Robert L. Krizek, "Whiteness: A Strategic Rhetoric," *Quarterly Journal of Speech*, vol. 81 (1995): 291-309.

[21] George A. Yancey, *Who is White?: Latinos, Asians, and the New Black/Nonblack Divide* (Boulder, CO: Lynne Rienner, 2003).

[22] "My suggestion is, then, that whether the apparent whiteness is natural or artificial should make no difference to its reality; in both cases, the person is apparently white." Charles W. Mills, *Blackness Visible: Essays on Philosophy and Race* (Ithaca: Cornell University Press, 1998), 62. This attitude toward racial identity should come under increased suspicion after the controversy surrounding Rachel Dolezal, a woman with white parents who modified her appearance to pass as black and became the president of an NAACP chapter. The popular sentiment was that Dolezal was *not* black, even though she had successfully passed.

[23] Alain Locke, "The Concept of Race as Applied to Social Culture," in *The Idea of Race*, eds. Robert Bernasconi and Tommy L Lott (Indianapolis: Hackett Publishing Company, Inc., 2000), 94.

[24] Ibid.

[25] Ibid., 92.

[26] Ibid., 97.

[27] Ibid., 96.

[28] On craniometry as race science, especially in the works of Morton and Broca, see Gould, *Mismeasure of Man*, 82-141.

[29] Dorothy Roberts argues that Darwinism and Mendelism during this period "generated a concept of race as a geographical population rather than a human essence," *Fatal Invention: How Science, Politics, and Big Business Re-Create Race in the Twenty-First Century* (New York: The New Press, 2011), 38. Her claim is based on the fact that eugenicists diagnosed specific populations such as Hebrews, Poles, and Italians with certain hereditary defects. While it is true that these were considered to be "racial" classifications, it is only in a characterological sense that eugenicists believed individuals common to a particular region shared certain hereditary traits. This conception of hereditary character included racial classification and expanded beyond it to include class, ethnicity, disability, and pathological disorder. The underlying biological theory that connected the heredity of diverse individuals in common social groups was Weismann's germ-plasm theory, which posited a hereditary "essence" that was influenced by, but not defined as, population. This distinction is crucial if one is not to confuse eugenics with late twentieth-century population genetics and, thus, avoid falling into the fallacy of composition, given that population genetics formed

only one part of the post-WWII legacy of eugenics.

[30] Francis Galton, “Hereditary Talent and Character,” *Macmillan’s Magazine*, vol. 12 (1865): 163.

[31] Ibid., 165.

[32] Ibid., 320. See Chapter 1 on the role of temperament in eugenic discourse.

[33] Ibid.

[34] Ibid., 321.

[35] Ibid., 325.

[36] Ibid., 325 and 321.

[37] Ibid., 323.

[38] Michael Omi and Howard Winant, *Racial Formation in the United States* (New York: Routledge, 2014).

[39] August Weismann, *The Germ-Plasm: A Theory of Heredity*, trans. W. Newton Parker and Harriet Rönnfeldt (New York: Charles Scribner’s Sons, 1893), 42-3.

[40] Harry H. Laughlin, “Report of the Committee to Study and to Report on the Best Practical Means of Cutting Off the Defective Germ-Plasm in the American Population,” *Eugenic Record Office: Bulletin No. 10A* (Cold Spring Harbor: Eugenics Record Office, 1914), 16.

[41] In their diagnostic methodology, eugenicists often conflated these terms despite their differences. Psychologist A. A. Roback, in his encyclopedic volume on characterology, asserts their synonymy: “since the historical development of the subject [i.e. character] took place in a somewhat protean fashion, sometimes in the guise of character, sometimes appearing in the shape of temperament, and at other times taking on the aspect of individuality and personality, it becomes clear that until the chameleon-like qualities of our subject are removed or at least reduced to a minimum, we have no right to prescind its history.” *The Psychology of Character: With a Survey of Temperament* (New York: Hardcourt, Brace & Company, Inc., 1927), xi.

[42] Harry H. Laughlin, *A Report of the Special Committee on Immigration and Alien Insane: Submitting a Study on Immigration-Control* (New York: Chamber of Commerce of the State of New York, 1934), 15-6. As Laughlin’s language indicates, “newer” personality yard-sticks were being developed in the 1930s. In the cited passage, his language eventually shifts from character and personality to solely emphasizing personality tests. This transition is crucial for understanding the development of eugenic discourse into the mid-century and is something I will consider further in the conclusion. I am indebted to Michael A. Rembis for the insight regarding the language of the passage.

[43] Laughlin, *Eugenical Sterilization*, 371.

[44] “At a glance” diagnosis was critical for the speedy processing of immigrants at Ellis Island. For more on these applications, see Jay Timothy Dolmage, *Disabled Upon Arrival: Eugenics, Immigration, and the Construction of Race and Disability* (Columbus: Ohio State University Press, 2018).

[45] I borrow this skeleton simile from Laughlin himself. See Davenport, Laughlin, et al., “The Study of Human Heredity,” 9.

[46] Cathy Boeckmann, *A Question of Character: Scientific Racism and the Genres of American Fiction, 1892-1912* (Tuscaloosa: The University of Alabama Press, 2000), 37.

[47] "The separation of character from appearance led to problems of detection and to a need to reestablish a connection between inner and outer that would ensure reliable information about character. And it is in the discourses of character that we find this mechanism of reconnection." Ibid., 44.

[48] Of course, "race" continued to exist as a concept in psychological research, but it was subordinated within the discourse to character traits. One would now have to identify race through character and not the other way around. This reversal defined nearly the entire first half of twentieth-century psychology. Psychologist June Downey's comment from 1922 about the value of character analysis (here called "temperamental testing") for race science was typical: "in racial psychology important results may be expected to follow temperamental testing." Quoted in Robert V. Gutherie, *Even the Rat was White: A Historical View of Psychology* (Boston: Allyn and Bacon, 1998), 70.

[49] Laughlin, *A Report of the Special Committee*, 18 and 43.

[50] Ibid., 18. My emphasis.

[51] The key to understanding Laughlin's argument in this passage is his distinction between legal and biological standards, which he discussed about a decade earlier in *Eugenical Sterilization in the United States*, 368-9.

[52] Hyppolite Adolphe Taine, *History of English Literature* (New York: Worthington Co., 1873), 24.

[53] Ibid., 17 (translation modified). The original French uses terms that were rendered too narrowly in the cited translation: "une copie des mœurs environnantes et le signe d'un état d'esprit." *Histoire de la littérature anglaise* (Paris: Librairie de L. Hachette et Cie., 1863), iii.

[54] Ibid., 19.

[55] Ibid., 19-21.

[56] Boeckmann, *A Question of Character*, 61.

[57] Mark S. Morrisson, *Modernism, Science, and Technology* (London: Bloomsbury, 2017); Tim Armstrong, *Modernism, Technology and the Body: A Cultural Study* (Cambridge: Cambridge University Press, 1998).

[58] Partridge, *Outline*, 10-1. He specifically cites Herbert Spencer's autobiography and Rousseau's *Confessions* as examples.

[59] Ibid., 11.

[60] On this incident, see Gould, *Mismeasure of Man*, 199. For the original claim, see Henry Herbert Goddard, *Psychology of the Normal and Subnormal* (New York: Dodd, Mead and Company, 1919), 239-41.

[61] For a more recent history of the psychology of character, see Gilbert Simondon, *Sur la psychologie (1956-1967)* (Paris: PUF, 2015), 82-3 and 141-50.

[62] Gardner Murphy, *Historical Introduction to Modern Psychology* (New York: Harcourt, Brace and Company, 1949), 208.

[63] Character, like intelligence, was thought to be a single individual trait

by early twentieth-century scientists. Today, it is commonly believed that it is made up of numerous, more specific, traits.

[64] Quoted in Lisel M. Olson, “Gertrude Stein, William James, and Habit in the Shadow of War,” *Twentieth-Century Literature*, vol. 49, no. 3 (Fall 2003): 328.

[65] James claimed that habit, the source of character, maintained divisions of class and race and protected society from the “mixing” of social strata: “It [habit] alone is what keeps us all within the bounds of ordinance, and saves the children of fortune from the envious uprisings of the poor. It alone prevents the hardest and most repulsive walks of life from being deserted by those brought up to tread therein. It keeps the fisherman and the deck-hand at sea through the winter; it holds the miner in his darkness, and nails the countryman to his log cabin and his lonely farm through all the months of snow; it protects us from invasion by the natives of the desert and the frozen zone.” William James, *The Principles of Psychology,* Volume I (New York: Henry Holt and Company, 1890), 121.

[66] James, *Principles*, 199-200.

[67] In the same year that *The Principles* was published, James wrote an article on the nature of the self, citing Janet and Binet, for a popular magazine (William James, “The Hidden Self,” Scribner’s Magazine, vol. 7, no. 3 (March 1890): 361-374). This article was part of the concentrated attempt to introduce psychology to the public.

[68] James, *Principles*, 203.

[69] See footnote 39 on the metonymy of consciousness, personality, and other terms (including character) in turn-of-the-century psychology.

[70] For an astute history of automatic writing research in psychology, see Wilma Koutstaal, “Skirting the Abyss: A History of Experimental Explorations of Automatic Writing in Psychology,” *Journal of the History of the Behavioral Sciences*, vol. 28 (January 1992): 5-27.

[71] Ibid., 209.

[72] It would be easy to dismiss this event as a ruse. Although James fervently believed in automatic writing, he was at first a skeptic, like many of his colleagues. The point, however, is that it was accepted as a real phenomenon by numerous social scientists. Automatic writing was studied in psychological laboratories and debated in academic journals. It was but one way of making palpable the unseen dynamics of character. Therefore, ruse or not, automatic writing was a *discursive reality* that gave credence to material techniques and concrete policies.

[73] In this regard, James’ model of the self is nearly identical to Partridge’s, explored in Chapter 1.

[74] Quoted in Ludy T. Benjamin*, A Brief History of Modern Psychology* (Malden, MA: Blackwell Publishing, 2007), 103.

[75] Benjamin, *A Brief History of Modern Psychology*, 103. Specifically, in Münsterberg’s psychological study of jurisprudence, he argued that psychology was a crucial tool to be used in legal matters: “The time will come when methods of experimental psychology cannot longer be excluded from the court of law” (ibid., 110-1). He would undoubtedly be pleased

with the extent to which psychological testing was integrated into juridical decisions, due to the lobbying efforts of eugenicists.

[76] Ann-Louise Silver, "William James and Gertrude Stein: Psychology Affecting Literature," *Journal of the American Academy of Psychoanalysis*, vol. 24, no. 2 (1996): 321-339; Liesl M. Olson, "Gertrude Stein, William James, and Habit in the Shadow of War," *Twentieth Century Literature*, vol. 49, no. 3 (Autumn 2003): 328-359; Steven Meyer, *Irresistible Dictation: Gertrude Stein and the Correlations of Writing and Science* (Stanford: Stanford University Press, 2001); Morrisson, *Modernism, Science, and Technology.* All of these accounts draw, at least in part, on Stein's own account of her relationship with James in *The Autobiography of Alice B. Toklas* (New York: Vintage Books, 1990), 69-85.

[77] Ronald B. Levinson, "Gertrude Stein, William James, and Grammar," *The American Journal of Psychology*, vol. 54, no. 1 (January 1941): 124-128; B. F. Skinner, "Has Gertrude Stein a Secret?", *The Atlantic Monthly*, vol. 153 (January 1934): 50-57; Armstrong, *Modernism, Technology and the Body*; Stein, *The Autobiography of Alice B. Toklas*, 78.

[78] Leon M. Solomons and Gertrude Stein, "Normal Motor Automatism," *Psychological Review*, vol. 3, no. 5 (September 1896): 492-512.

[79] Ibid., 492. Not only do they wish to study normal subjects, but stress the absolute importance of being certain of the subject's normality: "it was essential that no suspicion should rest upon the complete 'normality' of the subject throughout the experiments" (ibid., 493). They conclude that the best subjects for the experiment are themselves: "Neither of us has any aptitude for willing games, etc. We may both as far as we know stand as representatives of the perfectly normal—or perfectly ordinary—being, so far as hysteria is concerned" (ibid., 494). Stein and Solomons were the only test subjects for this experiment.

[80] Stein, *The Autobiography of Alice B. Toklas,* 83.

[81] On the role of normality in twentieth-century American psychology, see Chapter 1.

[82] Solomons and Stein, "Normal Motor Automatism," 493.

[83] Ibid., 500 and 494.

[84] Ibid., 503.

[85] Ibid., 509.

[86] Ibid

[87] Gertrude Stein, "Cultivated Motor Automatism; A Study of Character in its Relation to Attention," *Psychological Review*, vol. 5, no. 3 (May 1898): 295.

[88] Ibid., 297.

[89] Ibid., 297-8.

[90] Ibid., 299.

[91] Ibid.

[92] This evaluation, it should be noted, is not without a diagnostic and therapeutic intent. Not only is Type II described in terms of being less able-bodied, healthy, and social, but Stein writes that it is "much nearer the common one described in books on hysteria." Ibid., 298.

[93] See Chapter 1 on the concept of paper tool.

[94] Armstrong, *Modernism, Technology and the Body*, 198-9.

[95] Meyer, *Irresistible Dictation*, 221-9.

[96] Stein, "Cultivated Motor Automatism," 299.

[97] Although beyond the scope of this project, Stein's hereditarian concept of character was later influenced by Austrian philosopher Otto Weininger's *Sex and Character* (1903), which she read around 1908. Some scholars have argued that Stein's discovery of Weininger significantly impacted her final revision of her second novel, *The Making of Americans*, which was done between 1908 and 1911. However, this supposed influence did not alter in any way Stein's earlier interest in character and attempt to express it through formal innovations inspired by automatic writing. Rather, it seems that Weininger's influence primarily pertains to Stein's thinking about her own Jewishness and sexuality. On this issue, see Leon Katz, "Weininger and *The Making of Americans*," in *Critical Essays on Gertrude Stein*, ed. Michael J. Hoffman (Boston: G. K. Hall & Co., 1986), 139-49; George B. Moore, *Gertrude Stein's* The Making of Americans: *Repetition and the Emergence of Modernism* (New York: Peter Lang Publishing, Inc., 1998), 10-19.

[98] Lucy Daniel, *Gertrude Stein* (London: Reaktion Books Ltd, 2009), 28.

[99] Gertrude Stein, "Pictures," in *Writings 1932–1946* (New York: The Library of America, 1998), 228-9.

[100] Daniel, *Stein*, 68.

[101] Ibid., 34.

[102] Quoted in Daniel, *Stein*, 54.

[103] Daniel, *Stein*, 94.

[104] Recall that Roback's extensive history of characterology began with literature.

[105] On the popularization of literature and its formation into a social institution during this period, see Janice Radway, *A Feeling for Books: The Book-of-the-Month Club, Literary Taste, and Middle Class Desire* (Chapel Hill: University of North Carolina Press, 1997); Joan Shelley Rubin, *The Making of Middlebrow Culture* (Chapel Hill: University of North Carolina Press, 1992); Jennifer Wicke, *Advertising Fictions: Literature, Advertisement and Social Reading* (New York: Columbia University Press, 1988).

[106] I say "little to no" because Stein took a zoology course with Charles B. Davenport, but it is not clear if eugenics was ever a topic during the course.

[107] Despite no direct influence on Stein, Stein's psychological research had a direct influence on eugenics. See Havelock Ellis, *Studies in the Psychology of Sex,* Volume I, Third Edition (Philadelphia: F. A. Davis Company, 1913), 227-8.

[108] Stein's own automatically writing recorded for her psychological experiment bears a striking similarity to her literary prose: "When he could not be the longest and thus to be, and thus to be, the strongest." Stein, "Normal Motor Automatism," 506.

[109] Quoted in Daniel, *Stein,* 67.

[110] Richard Bridgman, *Gertrude Stein in Pieces* (New York: Oxford University Press, 1970), 52.

[111] Jaime Hovey, “Gertrude Stein: *Three Lives*,” in *A Companion to Modernist Literature and Culture*, eds. David Bradshaw and Kevin J. H. Dettmar (Malden, MA: Blackwell Publishing, 2006); Daylanne K. English, *Unnatural Selections: Eugenics in American Modernism and the Harlem Renaissance* (Chapel Hill: University of North Carolina Press, 2004); Daniel, *Stein*.

[112] To understand this scholarly preference, one would just need to look at the Norton Critical Edition of *Three Lives* and *Q.E.D.* The majority of the 19 critical articles in that volume focus on “Melanctha,” with more than a third referencing the name of the story in their title.

[113] Wendy Steiner, *Exact Resemblance to Exact Resemblance: The Literary Portraiture of Gertrude Stein* (New Haven: Yale University Press, 1978), 162.

[114] Gertrude Stein, *Three Lives* (Mineola, NY: Dover Publications, Inc., 1994), 142.

[115] Ibid.

[116] Ibid., 143.

[117] Ibid.

[118] Ibid., 142, 144, 146, 147, 148, 150, 152, 153.

[119] The publisher would not respond to an inquiry regarding the author of this blurb. Despite the fact that it was unlikely to be Stein herself, the blurb author seems to have interpreted the portrait of Lena as Stein had intended, i.e., as a eugenic characterization.

[120] Ibid., 146 and 148.

[121] Ibid., 148-51.

[122] Bert Bender, *Evolution and “the Sex Problem”: American Narratives During the Eclipse of Darwinism* (Kent: Kent State University Press, 2004),154

[123] Stein, *Three Lives*, 152.

[124] Ibid., 164.

[125] Ibid., 166.

[126] Ibid., 167.

[127] English, *Unnatural Selections*; Bender, *Evolution and “the Sex Problem”*; Eric Schocket, *Vanishing Moments: Class and American Literature* (Ann Arbor: University of Michigan Press, 2006); Beth Widmaier Capo, *Textual Contraception: Birth Control and Modern American Fiction* (Columbus: Ohio University Press, 2007); Deanna Gross Scherger, “The Same Brave World: Eugenic Discourse in Contemporary Narratives of Reproductive Technology,” PhD diss., (Indiana University, 2013).

[128] Gregory Michael Dorr, *Segregation’s Science: Eugenics and Society in Virginia* (Charlottesville: University of Virginia Press, 2008), 138.

[129] Nancy Ordover, *American Eugenics: Race, Queer Anatomy, and the Science of Nationalism* (Minneapolis: University of Minnesota Press, 2003), 7.

[130] Rembis, *Defining Deviance*, 126.

[131] Henry A. Murray, *Explorations in Personality: A Clinical and Experimental Study of Fifty Men of College Age* (New York: Oxford

University Press, 1938).

[132] Raymond B. Cattell, *Personality: A Systematic Theoretical and Factual Study* (New York: McGraw-Hill Book Company, Inc., 1950), 118-50.

Selective Breeding

[1] Francis Galton, *Essays in Eugenics* (London: The Eugenics Education Society, 1909), 2. On eugenic perception: "Higher appreciation of human nature in its normal perfection might be trusted to inspire the strongest motives of eugenic behavior, both in the individual and in the race. To develop eugenic perceptions and instincts is even more important than to magnify the idea of eugenic responsibility." O. F. Cook, "Eugenics and Breeding," *Journal of Heredity*, vol. 5, no. 1 (January 1914): 33.

[2] Rembis, *Defining Deviance*, 18.

[3] Some notable examples of this tendency are Ewa Barbara Luczak, *Breeding and Eugenics in the American Literary Imagination: Heredity Rules in the Twentieth Century* (New York: Palgrave MacMillan, 2015); Paul A. Lombardo, "From Better Babies to the Bunglers: Eugenics on Tobacco Road," in *A Century of Eugenics in America: From the Indiana Experiment to the Human Genome Era*, ed. Paul A. Lombardo (Bloomington: Indiana University Press, 2011); Jay Watson, "Genealogies of White Deviance: The Eugenic Family Studies, *Buck v. Bell*, and William Faulkner, 1926-1931," in *Faulkner and Whiteness,* ed. Jay Watson (Jackson: University of Mississippi Press, 2011); Barbara E. Ladner, "The Descent of Yoknapatawpha: Eugenics and the Origins of Faulkner's World," in *Popular Eugenics: National Efficiency and American Mass Culture in the 1930s,* eds. Susan Currell and Christina Cogdell (Athens: Ohio University Press, 2006); Betsy L. Nies, *Eugenic Fantasies: Racial Ideology in the Literature and Popular Culture of the 1920's (*New York: Routledge, 2002).

[4] Canguilhem, *The Normal and the Pathological*, 44-6.

[5] Daylanne K. English, *Unnatural Selections: Eugenics in American Modernism and the Harlem Renaissance* (Chapel Hill: University of North Carolina Press, 2004), 20-1.

[6] Christina Cogdell, *Eugenic Design: Streamlining America in the 1930s* (Philadelphia: University of Pennsylvania Press, 2004), x.

[7] Howard Ayres, "Selective Breeding," *The Lancet-Clinic*, vol. 110, no. 9 (August 1913): 224.

[8] On the history of compulsory sterilization in the United States, see Molly Ladd-Taylor, *Fixing the Poor: Eugenic Sterilization and Child Welfare in the Twentieth Century* (Baltimore: Johns Hopkins University Press, 2017); Mark A. Largent, *Breeding Contempt: The History of Coerced Sterilization in the United States* (New Brunswick, NJ: Rutgers University Press, 2008); Philip R. Reilly, *The Surgical Solution: A History of Involuntary Sterilization in the United States* (Baltimore: Johns Hopkins University Press, 1991).

[9] Daniel J. Kelves, *In the Name of Eugenics: Genetics and the Uses of Human Heredity* (Cambridge: Harvard University Press, 1995), 164-75.

[10] Laura L. Lovett, *Conceiving the Future: Pronatalism, Reproduction,*

and the Family in the United States, 1890-1938 (Chapel Hill: University of North Carolina Press, 2007); 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).

[11] Kelves, *In the Name of Eugenics*, 174.

[12] Lovett, *Conceiving the Future*, 131-61; Kline, *Building a Better Race,* 95-123.

[13] I analyze some of these developments in the following chapter.

[14] Jay Timothy Dolmage, *Disabled Upon Arrival: Eugenics, Immigration, and the Construction of Race and Disability* (Columbus: Ohio State University Press, 2018); Michael A. Rembis, *Defining Deviance: Sex, Science and Delinquent Girls, 1890—1960* (Urbana: University of Illinois Press, 2011); Alexandra Minna Stern, *Eugenic Nation: Faults and Frontiers of Better Breeding in Modern America* (Berkeley: University of California Press, 2005); Nancy Ordover, *American Eugenics: Race, Queer Anatomy, and the Science of Nationalism* (Minneapolis: University of Minnesota Press, 2003); Kline, *Building a Better Race.*

[15] See, for example, Caleb Saleeby, *Woman and Womanhood: A Search for Principles* (New York: Mitchell Kennerley, 1911), 327-47.

[16] Charlotte Perkins Gilman, “Birth Control, Religion and the Unfit,” *The Nation*, January 27, 1932.

[17] Cynthia J. Davis, *Charlotte Perkins Gilman: A Biography* (Stanford: Stanford University Press, 2010), 286-318.

[18] For an example of such an interpretation, see Carol Farley Kessler, *Charlotte Perkins Gilman: Her Progress Toward Utopia with Selected Writings* (Syracuse: Syracuse University Press, 1995).

[19] Charlotte Perkins Gilman, *Moving the Mountain* (New York: Charlton Company, 1911), 51-2.

[20] Ibid., 51.

[21] Howard A. Knox, “Tests for Mental Defectives,” *Journal of Heredity*, Vol. 5, No. 3 (March 1914): 125.

[22] Gilman, *Moving the Mountain*, 100 and 108.

[23] Ibid., 106 and 108.

[24] Ibid., 181.

[25] Gilman, *Herland*, 82.

[26] Ibid., 59.

[27] Ibid., 57.

[28] Ibid., 54.

[29] Asha Nadkarni, *Eugenic Feminism: Reproductive Nationalism in the United States and India* (Minneaplois: University of Minnesota Press, 2014), 10.

[30] On this point, Ewa Barbara Luczak has convincingly argued that Gilman’s late fiction (which includes *Moving the Mountain*) was intended to be a direct response to the eugenic theories of sociologists Lester F. Ward and Edward A. Ross. See *Breeding and Eugenics in the American Literary Imagination: Heredity Rules in the Twentieth Century* (New York: Palgrave MacMillan, 2015), Chapters 4 and 5.

[31] Karen Leick, *Gertrude Stein and the Making of an American Celebrity* (New York: Routledge, 2009).

[32] Stein's first two novels were financial failures. She self-funded the publication of *Three Lives*, which received some favorable reviews, although went mostly unnoticed. She had to convince a publisher to print her second novel, *The Making of Americans*, by guaranteeing that it would sell fifty copies immediately, which it did not. Despite these shortcomings, Stein's personality and wit made her a household name long before her books became best-sellers.

[33] On the popularization of literature and its formation into a social institution, see Janice Radway, *A Feeling for Books: The Book-of-the-Month Club, Literary Taste, and Middle Class Desire* (Chapel Hill: University of North Carolina Press, 1997); Joan Shelley Rubin, *The Making of Middlebrow Culture* (Chapel Hill: University of North Carolina Press, 1992); Jennifer Wicke, *Advertising Fictions: Literature, Advertisement and Social Reading* (New York: Columbia University Press, 1988).

[34] Gertrude Stein, *The Making of Americans* (Victoria, TX: Dalkey Archive, 1995), 15.

[35] Gertrude Stein, "What is English Literature," in *Writings 1932–1946*, eds. Catherine R. Stimpson and Harriet Chessman (New York: Library of America, 1998), 220.

[36] Ibid., 222.

[37] The possible maternal significance of this new American beginning that creates, or gives birth to, new bodies is not lost on Stein. Elsewhere, she specifically designates America as "the mother of modern civilization" (Gertrude Stein, *Gertrude Stein's America*, ed. Gilbert A. Harrison (Washington, D.C.: Robert E. Luce, Inc., 1965), 68). This point highlights both the centrality of reproductive metaphors in Stein's literature and her scalar conception of heredity. These aspects of Stein's fiction signal an engagement with some of the major features of eugenic discourse.

[38] Stein, *Making of Americans*, 67.

[39] Scholar Nicola Glaubitz has recently noted that the transition from immigrant to American, middle class narratives in Stein's fiction correlates to her increasing interest in defining "normal" man, which became evident in her second psychological study, "Cultivated Motor Automatism." See " 'Normal Man' and the Modernist Long Novel: Gertrude Stein's *The Making of Americans* and Robert Musil's *The Man Without Qualities*," *Modernist Cultures*, vol. 10, no. 3 (2015): 321.

[40] For a prime example of this speculative effort, see Clive Bush, "Toward the Outside: The Quest for Discontinuity in Gertrude Stein's *The Making of Americans; Being a History of a Family's Progress*," *Twentieth Century Literature*, vol. 24, no. 1 (Spring 1978): 27-56.

[41] Stein, *Making*, 3.

[42] Ibid., 14-5.

[43] Ibid., 29. My emphasis. Taken out of context, one may wonder if this passage implies that parents should teach by example rather than by direct instruction. "Living," however, becomes a vital focus of Stein's text and

signifies, as I will go on to show, the expression of heredity and not the setting of an example. Thus, by living, parents express their hereditary nature which is also their childrens'.

[44] "All of his [David Hersland's] children had each mixed up in them the father, important to himself in his religion, and the mother, with her almost important feeling, with her constant trickling crying that made her have inside her her almost important feeling." Ibid., 63.

[45] Ibid., 123. This long passage describes how each of the father's qualities arose in his children to varying degrees. While describing Martha's inheritance, Stein repeats "in her" several times, invoking the verb "inhere."

[46] Ibid., 65.How does one become what one is?

[47] Ibid., 66.

[48] Ibid., 3.

[49] Ibid., 15 and 111.

[50] "[...] then there are the French bohemians, now one never would think of them as extravagantly cleanly beings, and yet in a village in Spain they were an astonishment to all the natives, why do you do so much washing, they all demanded of them, when your skin is so white and clean even when you first begin to clean them." Stein, *Making of Americans*, 16.

[51] Ibid. If one recalls the tale of "Gentle Lena" discussed in the previous chapter, one will find an even lower rung on the hygienic hierarchy reserved for the "feeble-minded" person, who is "worse than a nigger." This hierarchy, although predominantly ordered by race and ethnicity, is in fact suffused with the ableism present in its lowest rung, as one quickly learns from Stein's later elaborations.

[52] The cleanliness of American life was a constant theme for Stein. In her novel *Things As They Are*, Adele (a character based on Stein) travels to Boston and comments on the "very essence of clear-eyed Americanism": "It was a cleanliness that began far inside of these people and was kept persistently washed by a constant current of clean cold water." After living in Paris for several decades, Stein organized a trip back to America in the 1930s and nostalgically reported her hope to find "an America where as Mark Twain said in the first diary he ever kept he got up and washed and went to bed. He was proud that every day nothing happened but that he did get up every day and that he did wash." Quoted in Stein, *Gertrude Stein's America*, 16 and 46. See Chapter 2 for more on her interest in national character.

[53] Ibid., 136.

[54] Gertrude Stein, "The Gradual Making of *The Making of Americans*," in *Writings 1932–1946*, eds. Catharine R. Stimpson and Harriet Chessman (New York: Library of America, 1998), 272. My emphasis.

[55] Ibid., 275.

[56] Ibid., 271. Also, on the same page, regarding her talkative nature as a child: "this talking consisted in a desire not only to hear what each one was saying in every way everybody has of saying it but also then of helping to change them and to help them change themselves."

[57] Ibid., 3.

[58] Stein, *Making of Americans*, 47. Stein scholar George B. Moore, in

the only book-length study of this novel, conflates vital singularity with some kind of totalizing abstract character or, in his words, "the apogee of all human types" and an "idealized self-awareness" (*Gertrude Stein's* The Making of Americans, 45). In attempting to read *The Making of Americans* through the characterological lens of *Three Lives*, Moore misses Stein's new focus on the reproductive aspects of hereditary character.

[59] Ibid., 48.

[60] Ibid., 21. My emphasis.

[61] Ibid.

[62] This claim should come as no surprise from a text that celebrates the "bourgeois mind" and the middle-class: "Middle-class, middle-class, [. . .] is the one thing always human, vital, and worthy it--worthy that all monotonously shall repeat it,--and from which has always sprung, and all who really look can see it, the very best the world can ever know, and everywhere we always need it." Ibid., 34.

[63] "With the father David Hersland, there was in him a little more of real existing, there was in him then that he was a man to feel it in him when another man spoke to him, when another man spoke as a master to him or as just a man to know him; there was then in him a feeling of being a male thing then when Mr. Hersland met him." Ibid., 98-9.

[64] Ibid., 172-3.

[65] Ibid., 173.

[66] Ibid., 220.

[67] George Moore, *Gertrude Stein's* The Making of Americans: *Repetition and the Emergence of Modernism* (New York: Peter Lang Publishing, Inc., 1998), 63-5.

[68] Joshua L. Miller, *Accented America: The Cultural Politics of Multilingual Modernism* (New York: Oxford University Press, 2011), 142.

[69] Sarah Wilson, *Melting-Pot Modernism* (Ithaca: Cornell University Press, 2010), 165.

[70] For more on how Stein exploited literature for scientific ends, see Chapter 2.

[71] Quoted in Moore, *Gertrude Stein's* The Making of Americans, 242n6.

[72] English, *Unnatural Selections*, 22.

[73] Steven Meyer, "Introduction," in *The Making of Americans* (Victoria, TX: Dalkey Archive, 1995), xxxv.

[74] Stein, *Making of Americans*, 912-3.

[75] Ibid., 912-3.

[76] Ibid., 915-6.

[77] Ibid., 920-1.

[78] Ibid., 922.

[79] Tanya Clement, "The Story of *one*: Narrative and Composition in Gertrude Stein's *The Making of Americans*," *Texas Studies in Literature and Language*, vol. 54, no. 3 (Fall 2012): 426-448.

[80] Indeed, this connection is not distinctive of Stein's work, but of American modernism more generally. Walt Whitman, who Stein calls the first instance of "Twentieth Century writing," declared at the end of *Leaves of Grass* the

importance of a "new race of singers" who could herald the new nation and its new literature. Without this "new race," America would supposedly "stop short of first-class Nationality and remain defective." The fears of disability, weakness, and impurity were intimately tied to the reproductive discourses of this period and suffused throughout its literature.

[81] Robin Pappas, "H.D. and Havelock Ellis: Popular Science and the Gendering of *Thought and Vision*," *Women's Studies*, vol. 38 (2009): 151-182; Catherine A. Rogers, "H.D.'s Erotic and Aesthetic Gospel in *Notes on Thought and Vision*," *Paideuma*, vol. 35, no. 1 (January 2006): 91-117; Adalaide Morris, *How to Live/What to Do: H.D.'s Cultural Poetics* (Urbana: University of Illinois Press, 2003); Carma M. Stahnke, "H.D. and the Quest for Equilibrium as Expressed in *Notes on Thought and Vision* and Illustrated in the *Madrigal Cycle*" (PhD diss., Southern Illinois University at Carbondale, 2000); Kathleen Crown, "H.D.'s Jellyfish Manifesto and the Visible Body of Modernism," *Sagetrieb*, vol. 14, no. 1-2, (1995): 217-241; Donna Krolik Hollenberg, *H.D.: The Poetics of Childbirth and Creativity* (Boston: Northeastern University Press, 1991); Susan Stanford Friedman, *Penelope's Web: Gender, Modernity, H.D.'s Fiction* (Cambridge: Cambridge University Press, 1990).

[82] On the relation of H.D.'s mystical experiences to her poetics, see Lara Vetter, *Modernist Writings and Religio-Scientific Discourse: H.D., Loy, and Toomer* (New York: Palgrave MacMillan, 2010); Morris, *How to Live*, 89-119; Friedman, *Penelope's Web*, 10.

[83] For discussions of Ellis' role, see Polina Mackay, "H.D.'s modernism," in *The Cambridge Companion to H.D.*, eds. Nephie J. Christodoulides and Polina Mackay (Cambridge: Cambridge University Press, 2012), 54-5; Pappas, "H.D. and Havelock Ellis"; Stahnke, "H.D. and the Quest for Equilibrium," 70-97. On the general "scientific" aspiration of *Notes*, see Rachel Blau DuPlessis, *H.D.: The Career of that Struggle* (Bloomington: Indiana University Press, 1986), 40-1.

[84] Hilda Doolittle (H.D.), *Notes on Thought and Vision & The Wise Sappho* (San Francisco: City Lights Books, 1982), 40.

[85] Ibid., 18, 23, 40.

[86] Ibid., 19.

[87] Ibid., 24, 29-30.

[88] Ibid., 50. My emphasis.

[89] Hollenberg, *H.D.*, 45.

[90] H.D., *Notes*, 30.

[91] Ibid.

[92] Ibid., 17.

[93] Ibid.

[94] Ibid., 17, 19, 27, 31, 39.

[95] Pappas, "H.D. and Havelock Ellis," 154-5.

[96] Ibid., 156. One other reason Pappas gives is that H.D. appears to give equal weight to aesthetic experience and scientific investigation, thus putting into question the supposedly "objective" conclusions of the empirical sciences which rely on a doctrine of mind-body dualism. I have not commented on

this reason because, as I have argued throughout this chapter, eugenics was not merely a scientific discourse, but also popular and literary, i.e., aesthetic.

[97] H.D., *Notes*, 50. I interject the gendered term "man" because this is the grammatical subject that H.D. uses.

[98] Ibid., 52.

[99] Ibid.

[100] Hilda Doolittle (H.D.), *HERmione* (New York: New Directions Publishing Corporation, 1981), 5. A similar claim appears in *Notes*: "The body—limbs of a tree, branches of a fruit tree, the whole body a tree" (42).

[101] H.D., *HERmione*, 56-7.

[102] Andrew Lawson, "Helen in Philadelphia: H.D.'s Eugenic Paganism," in *Evolution and Eugenics in American Literature and Culture, 1880-1940: Essays on Ideological Conflict and Complicity*, eds. Lois A Cuddy and Claire M. Roche (Lewisburg, PA: Bucknell University Press, 2003), 227 and 235. For a similar reading, see Betsy L. Nies, *Eugenic Fantasies: Racial Ideology in the Literature and Popular Culture of the 1920's* (New York, NY: Routledge, 2002).

[103] H.D., *HERmione*, 15.

[104] Ibid., 15-6.

[105] Ibid., 20.

[106] Ibid., 21.

[107] William Aldren Turner, *Epilepsy: A Study of the Idiopathic Disease* (New York: The MacMillan Company, 1907), 250. For a eugenic diagnosis of epilepsy, see Laughlin, *Eugenical Sterilization*, 293-4.

[108] H.D., *HERmione*, 15-7, 22, 25, 38-9, 46, 122.

[109] Ibid., 46.

[110] J. F. G. Desisles, *Notice sur l'épilepsie considérée sous le rapport de l'hérédité* (Montpellier, J. Martel, 1815). The connection was made in anglophone scholarship as early as 1877 by E. Dupuy, "On Hereditary Epilepsy," *Transactions of the American Neurological Association*, vol. 2 (1877): 76-79.

[111] James Thomas Wright, "Eugenics Versus Epilepsy," *New York Medical Journal*, vol. 116 (1922): 339.

[112] Laughlin, *Eugenical Sterilization*, 294.

The Clinic

[1] Brookes, *Extreme Measures, 2*82-4.

[2] Galton, *Essays in Eugenics*, 95.

[3] Ibid., 99.

[4] Ibid., 85-6.

[5] Galton was unable to deliver the lecture himself due to an injurious fall in his bedroom shortly before the event. Instead, Arthur Galton, who was presumably more charismatic than Francis, read the prepared essay. Biographer D. W. Forrest asserts that the warm reception was due in part to this last-minute substitution. *Francis Galton: The Life and Work of a Victorian Genius* (New York: Taplinger Publishing Co., Inc., 1974), 273.

[6] Quoted in Michael A. Rembis, "'Explaining Sexual Life to Your Daughter': Gender and Eugenic Education in the United States during the 1930s," in *Popular Eugenics: National Efficiency and American Mass Culture in the 1930s*, eds. Susan Currell and Christina Cogdell (Athens: Ohio University Press, 2006), 96.

[7] Johanna Schoen, *Choice & Coercion: Birth Control, Sterilization, and Abortion in Public Health and Welfare* (Chapel Hill: University of North Carolina Press, 2005), 3.

[8] Charles B. Davenport and Harry H. Laughlin, "How to Make a Eugenical Family Study," *Eugenics Record Office Bulletin,* no. 13 (Cold Spring Harbor: Eugenics Record Office, 1915), 32.

[9] Dorothy Roberts, *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty* (New York: Vintage Books, 2017); Cathy Moran Hajo, *Birth Control on Main Street: Organizing Clinics in the United States, 1916–1939* (Urbana: University of Illinois Press, 2010); Angela Franks, *Margaret Sanger's Eugenic Legacy: The Control of Female Fertility* (Jefferson, NC: MacFarland & Company, Inc., Publishers, 2005); Nancy Ordover, *American Eugenics: Race, Queer Anatomy, and the Science of Nationalism* (Minneapolis: University of Minnesota Press, 2003*);* Carole R. McCann, *Birth Control Politics in the United States, 1916–1945* (Ithaca: Cornell University Press, 1994); Angela Y. Davis, *Women, Race & Class* (New York: Vintage Books, 1983); Linda Gordon, *Woman's Body, Woman's Right: A Social History of Birth Control in America* (New York: Grossman Publishers, 1976).

[10] Charles B. Davenport, H. H. Laughlin, David F. Weeks, E. R. Johnstone, and Henry H. Goddard, "The Study of Human Heredity: Methods of Collecting, Charting and Analyzing Data," *Eugenics Record Office Bulletin,* no. 2 (Cold Spring Harbor: Eugenics Record Office, 1911), 1.

[11] On gender issues related to field worker employment and professionalization, see Amy Sue Bix, "Experiences and Voices of Eugenics Field-Workers: 'Women's Work' in Biology," *Social Studies of Science*, vol. 27, no. 4 (August 1997): 625-668.

[12] Davenport, Laughlin, et al., "The Study of Human Heredity," 1-2.

[13] Since it was common practice to create two copies, field workers often used carbon-copy paper. Harry H. Laughlin, "Report on the Organization and the First Eight Months' Work of the Eugenics Record Office," *Journal of Heredity*, vol. 2, no. 2 (April 1911), 109.

[14] These campaigns ranged from Better Baby and Fitter Family Contests at local state fairs to extravagant, international exhibits at several World's Fairs. At exhibitions, eugenicists provided small, quarter-sheet pedigree charts that documented the presumed heredity of various physical, mental, and temperamental traits. At the time of its closing, hundreds and even thousands of some of these handouts were in stock at the ERO.

[15] Michel Foucault, *The Birth of the Clinic: An Archaeology of Medical Perception,* trans. A. M. Sheridan Smith (New York: Vintage Books, 1994), xiv.

[16] Quoted in Foucault, *The Birth of the Clinic*, 70.

[17] The early-century optimism in the power of the medical gaze to reveal the nature of disease does not last long. In tandem with the lifting of the taboo on cadaver dissection, clinical knowledge transitions away from a visual diagnostic model to one that claims to interpret subtle, subterranean signs. In essence, disease now burrows beneath the surface of the body and only a "*sensorial triangulation*" of its location can lead to a cure (Foucault, *The Birth of the Clinic*, 163). Although Foucault does not mention it, this development roughly coincides with the emergence of Darwinian evolutionary theory and the various techniques (explored in Chapter 1) for evaluating an individual's hereditary pathology, also thought to be hidden below the surface of the body.

[18] Foucault, *The Birth of the Clinic*, 165.

[19] For a thorough account of the history of American medical clinics during this period, see Harvey A. McGehee, *Science at the Bedside: Clinical Research in American Medicine, 1905-1945* (Baltimore: Johns Hopkins University Press, 1981).

[20] Witmer originally saw his clinical practice as part of medical science, but reassessed this view a decade after the clinic's founding. In 1907, he claimed that medicine was but one component of clinical practice, which also incorporated elements of sociology and pedagogy. Instead of narrowing its focus, Witmer portrayed the clinic as a veritable Panopticon overseeing all of social life: "The school room, the juvenile court, and the streets are a larger laboratory of psychology." Lightner Witmer, "Clinical Psychology," *The Psychological Clinic*, vol. 1, no. 1 (March 1907): 7. Healy would undoubtedly concur with this view since, just two years later, he was appointed by an expert panel including William James to run the Juvenile Psychopathic Institute, a psychiatric clinic conducting research on child delinquency and crime, conveniently housed in the same building as Chicago's Juvenile Court. At Healy's clinic, medical examinations were part of a battery of tests that children were forced to endure. Murray Levine and Adeline Levine, *A Social History of Helping Services: Clinic, Court, School, and Community* (New York: Appleton-Century-Crofts, 1970).

[21] Levine and Levine, *A Social History of Helping Services*, 1.

[22] Lightner Witmer, "Clinical Psychology," 8.

[23] Lightner Witmer, "The Hospital School," *The Psychological Clinic*, vol. 1, no. 5 (October 1907): 138.

[24] Lightner Witmer, "Clinical Records," *The Psychological Clinic*, vol. 9, no. 1 (March 1915): 2. Even though Witmer accepted cases of children with supposed above-average intelligence, his method was intended to normalize children and make them productive and able-bodied members of society. Using the telling metaphor of the tree, he defined ability as the potential to produce something (Lightner Witmer, "The Analytical Diagnosis," *The Psychological Clinic*, vol. 14, no. 5-6 (October-November 1922): 130). Competency, the aggregate of an individual's productive abilities and the end goal of diagnostic teaching, enabled one to "succeed in the competitive events of a lifetime" (Lightner Witmer, "Psychological Diagnosis and the Psychonomic Orientation of Analytic Science: An Epitome," *The*

Psychological Clinic, vol. 16, no. 1-2 (January-February 1925): 4). This success, also termed "social efficiency," was interpreted through the lenses of individual pathology (normality), racial improvement (biological hygiene), economic-national progress (productivity), and the "*perfectability of man*." Ibid., 10-2.

[25] Manual labor and strict discipline were aspects of Witmer's "pedagogical treatment." Witmer, "The Hospital School," 141.

[26] Witmer railed against these "group tests of statistical psychology" and specifically criticized eugenicists. Witmer, "Psychological Diagnosis," 2; "Clinical Records," 5-6. To be clear, his disagreement with eugenicists concerns methodology alone. Witmer uncritically accepts the hereditarian theories of eugenics, but believes that such topics are outside the purview of the psychologist.

[27] Witmer, "Clinical Records," 2.

[28] Ibid., 1-2.

[29] Witmer, "Psychological Diagnosis," 18. This claim was Witmer's own. The final issue of *The Psychological Clinic*, however, included a report from a committee of the American Psychological Association that found that at least one thousand psychologists were engaged in some kind of clinical practice in 1935. The report went on to examine the results of a questionnaire filled out by 150 of those clinical psychologists. An index at the end lists nearly one hundred distinct clinics across the country.

[30] Witmer, "Clinical Records," 5.

[31] Witmer and Dr. Hannah Stone, the lead physician of Sanger's first permanent birth control clinic, both expressed a desire for a codified "follow-up" system that would track patients after their visit to the clinic. Ibid., 10; Hannah Stone, "Therapeutic Conception," *Medical Journal and Record*, vol. 127 (March 1928): 12-3. Stone's recommendations in particular echo the tactics of persuasion recommended by Davenport, Laughlin, and others.

[32] On the history of the card catalog as a paper machine, see Markus Krajewski's wonderful study, *Paper Machines: About Cards & Catalogs, 1548-1929* (Cambridge: MIT Press, 2011). The fact that this new technology was taken up by medical and business professionals simultaneously is not insignificant. With the formation of clinics, eugenic discourse adopts a commercial valence. This commercial turn has been analyzed in part by Cogdell's study on industrial design and style, but it has more profound implications for eugenic practice in general.

[33] William Healy, *The Individual Delinquent* (Boston: Little, Brown, and Company, 1915), 60.

[34] Witmer, "Clinical Psychology," 4.

[35] Margaret Sanger, *The Selected Papers of Margaret Sanger: Volume 1: The Woman Rebel, 1900–1928,* ed. Esther Katz, Cathy Moran Hajo, and Peter C. Engelman (Urbana: University of Illinois Press, 2003), 254. The oft-quoted part is usually just the first sentence. I have included the end of the passage to show how both coercive (the polemical struggle against the "unfit") and collaborative ("self-determining motherhood") aspects are

represented in Sanger's description of the relation between birth control and eugenics.

[36] Seneca Falls Convention, "Declaration of Sentiments," *USConstitution.net*, accessed 17 June 2019, https://www.usconstitution.net/sentiments.html.

[37] Sanger, *Selected Papers*, 252.

[38] Gordon, *Woman's Body, Woman's Right*, 121.

[39] Margaret Sanger, *Family Limitation*, Eighteenth Edition (New York: publisher not identified, 1921), 14. For a discussion of Sanger's successive revisions of *Family Limitation* within the context of her personal and political life, see Joan M. Jensen, "The Evolution of Margaret Sanger's 'Family Limitation' Pamphlet, 1914-1921," *Signs*, vol. 6, no. 3 (Spring 1981): 548-55.

[40] Margaret Sanger, "Clinics the Solution," *Birth Control Review*, vol. 4, no. 7 (July 1920): 6.

[41] Sanger, *Family Limitation*, Eighteenth Edition, 6-7.

[42] Sanger was undoubtedly aware of the settlement movement, a social reform movement that established "settlement houses" in impoverished urban areas of major cities in order to provide basic social services for the community. Insofar as the settlement houses offered some medical services, they acted as a kind of proto-clinic. By the 1920s, some of them offered birth control instruction as well (Hajo, *Birth Control on Main Street*). The same month that Sanger opened the Brownsville clinic, she personally urged Rachelle Yarros to open a clinic at Hull House, the famous settlement house started by Jane Addams in Chicago (Alexandra Fair, " 'The mind has to catch up on sex': Sexual Norms and Sex Education in the Hull House," *Paedagogica Historica*, vol. 54, no. 3 (2018): 256).

[43] Sanger, *Selected Papers*, 195; Hajo, *Birth Control on Main Street*, 12.

[44] Linda Gordon notes that Sanger gives two different figures for the number of case histories collected, but both are in the high four-hundreds. Gordon, *Woman's Body, Woman's Right,* 231n145.

[45] See McCann, *Birth Control Politics*, 77 in regards to the naming of the CRB. Despite the attempted subterfuge, Sanger's letters from this period reveal that she firmly believed the CRB to be a "clinic" first and a "research bureau" second, although any practical distinction between these titles were merged in the operations of the CRB. Even after NYSBC secretary Charles H. Johnson reprimanded Sanger for using the term "clinic," she would still refer to the CRB as a clinic in her letters, albeit with scare quotes after the controversy. See Sanger, *Selected Papers*, 351-3, 382, and 394.

[46] Hajo, *Birth Control on Main Street,* 27.

[47] Ibid., 23. Institutional clinics were found in hospitals and publicly-funded settlement houses or were government-sponsored.

[48] Ibid., 197n3.

[49] Sanger, *Selected Papers,* 372.

[50] Sanger later expanded her clinical services into New York City's Harlem neighborhood and the South. It is now uncontroversial to note that Sanger specifically targeted black women during these campaigns in order to inhibit their reproduction. As she once infamously warned James Gamble in a

1939 letter, “We do not want word to get out that we want to exterminate the Negro population” (quoted in Roberts, *Killing the Black Body*, 78). Scholars debate whether it was for economic or racial (i.e. eugenic) reasons . According to the economic interpretation, Sanger did not have racist inclinations, but merely wanted to protect impoverished women from the financial and medical burden of having more children (see, e.g., Jean H. Baker, *Margaret Sanger: A Life of Passion* (New York: Hill and Wang, 2011); James Reed, *From Private Vice to Public Virtue: The Birth Control Movement and American Society since 1830* (New York: Basic Books, 1978); McCann, *Birth Control Politics*; Roberts, *Killing the Black Body*). The debate over Sanger’s racism, nevertheless, obscures a more profound ableism at the root of her reproductive discourse. Although she believed (unpopularly amongst her colleagues) that black women were intelligent enough to use birth control as instructed, she did not extend the same capacity to the “feeble-minded,” whom she thought required compulsory sterilization.

[51] McCann, *Birth Control Politics*, 76.

[52] Reed, From Private Vice to Public Virtue*,* 123.

[53] Hajo, *Birth Control on Main Street*, 64.

[54] Ibid., 110-11.

[55] Ibid., 112.

[56] The target of these eugenic interventions, as evident from the case reports quoted above, were largely persons with suspected or actual disabilities. In a 1926 feature entitled “BRANDED” from her journal *Birth Control Review*, Sanger highlighted some of the “anonymous” letters she received as a way of demonstrating the value of birth control in reducing undesirable types of people. The letters were displayed under headings such as “Defective,” “Blind Babies,” “An Epileptic,” and “A Feebleminded Family.” Margaret Sanger, “BRANDED,” *Birth Control Review,* vol. 10, no. 1 (January 1926): 16-7.

[57] Quoted in Reed, *From Private Vice to Public Virtue*, 108.

[58] Sanger, *The Case for Birth Control*, 10-11.

[59] Sanger, *Selected Papers*, 198.

[60] In the late 1930s, the CRB officially shifted its emphasis from clinical practice to helping activists open their own clinics and other educational initiatives, including a national magazine and a clinic certification program. Hajo, *Birth Control on Main Street*, 16.

[61] Sanger, *Selected Papers*, 320.

[62] Sanger, *Woman and the New Race*, 228-9.

[63] Sanger, *Selected Papers*, 409-10.

[64] McCann, *Birth Control Politics*, 81.

[65] Sanger, *Selected Papers*, 413.

[66] In addition to the CRB’s eugenic use of clinical records, they were also used at least once to directly harm clients. In 1929, the police raided the CRB under false pretenses. They seized all of the clinic’s records, hauling off the numerous drawers of paperwork in trash baskets. Police later used the detailed information from the clinic’s records to intimidate and harass former clients. Reed, *From Private Vice to Public Virtue*, 119-20.

[67] Hajo, *Birth Control on Main Street*, 25.

[68] Reed, *From Private Vice to Public Virtue,* 117; McCann, *Birth Control Politics,* 97.

[69] Hannah M. Stone, "The Birth Control Clinic," *Eugenics: A Journal of Race Betterment*, vol. 2, no. 5 (May 1929): 11. Stone was also a proponent of eugenic sterilization (see Kline, *Building a Better Race*, 142).

[70] Stone, "The Birth Control Clinic," 11.

[71] *Public Family Planning Clinics: How to Organize / How to Operate* (San Francisco: G. D. Searle & Co., 1966), 7.

[72] Ibid., 16.

[73] Sanger, *Family Limitation*, Sixth Edition, 16. Sanger also circulated a pamphlet in Brooklyn in 1916 stating the preventive rationale for birth control: "Do not kill, do not take life, but prevent." Quoted in Hajo, *Birth Control on Main Street,* 56.

[74] This view persisted into the late twentieth century. For example, marriage counseling centers operated on the belief that the diagnosis of infertility was also its cure. See Kline, *Building a Better Race*, 154-5.

[75] Healy, *The Individual Delinquent*, 40-1.

[76] Witmer, "Clinical Records," 2.

[77] Schoen, *Choice & Coercion*, 35.

[78] Paul, *Controlling Human Heredity*, 120-1.

[79] Quoted in Reed, *From Private Vice to Public Virtue*, 135.

[80] Harry. H. Laughlin, "The Two Aspects of Control," *Birth Control Review*, vol. 10, no. 1 (January 1926): 7.

[81] Harry H. Laughlin, "Notes on the History of the Eugenics Record Office," 1939, Box 6, File 1, Eugenics Record Office Collection, Cold Spring Harbor Laboratory Library & Archives, Cold Spring Harbor, New York, 11, my emphasis.

[82] Ibid., 10.

[83] Harry H. Laughlin, "The Survey of the Human Resources of Connecticut," 1938, Box 3, File 1, Eugenics Record Office Collection, Cold Spring Harbor Laboratory Library & Archives, Cold Spring Harbor, New York, 3.

[84] Ibid., 57. The first four had already been implemented in the United States while the final suggestion, euthanasia, was starting to be proposed through official propaganda and films in Nazi Germany.

[85] Harry H. Laughlin, "A Clinical Service in Human Heredity," 1 July 1939, Box 5, File 1, Eugenics Record Office Collection, Cold Spring Harbor Laboratory Library & Archives, Cold Spring Harbor, New York, 6-7.

[86] Laughlin, "The Survey of the Human Resources of Connecticut," 41.

[87] Ibid., 42.

[88] Ibid., 59. My emphasis.

[89] Ibid., 67-8.

[90] Harry H. Laughlin, "Proposed Clinic of Human Heredity," 1938, Box 5, File 2, Eugenics Record Office Collection, Cold Spring Harbor Laboratory Library & Archives, Cold Spring Harbor, New York, unpaginated.

[91] Ibid.

[92] Laughlin's staff proposal is also similar to that presented by Lee R. Dice, founder of one of the first genetics clinics, in 1958. Dice wrote that personnel is the "most important factor" of a successful genetics clinic and presented the essential personnel in two groups based on their diagnostic (physician and geneticist) and bureaucratic (secretary and laboratory assistant) capacities. Lee R. Dice, "The Structure of Heredity Counseling Services," *Eugenics Quarterly*, vol. 5 (1958): 38-40.

[93] Laughlin, "A Clinical Service in Human Heredity," 13.

[94] Ibid. Here again one finds the inclination to treat diagnosis as a sufficient treatment in itself.

[95] Sheldon C. Reed, *Counseling in Medical Genetics* (Philadelphia: W. B. Saunders Company, 1963), 11.

[96] Ibid., 13.

[97] Ibid., 5.

[98] Ibid., 159.

[99] Reed's views on race and adoption, especially in regard to his discussion of them in *Counseling in Medical Genetics*, were recently addressed by Alexandra Minna Stern in *Telling Genes: The Story of Genetic Counseling in America* (Baltimore: The Johns Hopkins University Press, 2012), 53-74. Despite a thorough account, Stern falsely attributes the "one drop rule" of racial identity to Reed. Yet it is clear from his diagnostic criteria that Reed is following in the eugenic tradition of treating race as a biological "character," which I examined in depth in Chapter 2. The paramount racial issue for genetic counseling (i.e. the ability to pass) has little to do with blood and everything to do with an individual's physical, mental, and temperamental qualities insofar as they can be correlated to a specific racial group. Stern subsequently separates her discussions of race and disability into separate chapters when, in fact, it is necessary to examine these interconnected topics together.

[100] Carl J. Bajema, *Eugenics: Then and Now*, ed. Carl J. Bajema (Stroudsburg, PA: Dowden, Hutcinson & Ross, Inc., 1976), 295.

[101] Quoted in Diane B. Paul, *The Politics of Heredity: Essays on Eugenics, Biomedicine, and the Nature-Nurture Debate* (Albany: State University of New York Press, 1998), 134.

[102] Quoted in Paul, *Controlling Human Heredity*, 128.

[103] Correspondence from Lee R. Dice to Milislav Demerec, 8 May 1947, Box 8, File 8, Eugenics Record Office Collection, Cold Spring Harbor Laboratory Library & Archives, Cold Spring Harbor, New York.

[104] Correspondence from Lee R. Dice to James L. Campbell, 24 September 1947, Box 8, File 8, Eugenics Record Office Collection, Cold Spring Harbor Laboratory Library & Archives, Cold Spring Harbor, New York.

[105] Correspondence from Sheldon Reed to Milislav Demerec, 8 October 1947, Box 8, File 8, Eugenics Record Office Collection, Cold Spring Harbor Laboratory Library & Archives, Cold Spring Harbor, New York.

[106] Correspondence from Sheldon Reed to Agnes C. Fisher, 15 March 1977, Box 8, File 8, Eugenics Record Office Collection, Cold Spring Harbor Laboratory Library & Archives, Cold Spring Harbor, New York.

[107] Stern, *Telling Genes*, 34. Despite this continuity, Stern distinguishes the Mendelian form of analysis used by eugenicists from models of "empiric risk" developed by medical geneticists Sheldon Reed and J. A. Böök (40-2). As I discuss in Chapter 1, American eugenicists rarely practiced Mendelian analysis, preferring a unique method of pedigree analysis that relied on a "recticular" view of heredity. The recticular analysis of pedigrees is indistinguishable from the "empiric risk" model, which demonstrates a deeper continuity than is suggested by Stern.

[108] Nathaniel Comfort, *The Science of Human Perfection: How Genes Became the Heart of American Medicine* (New Haven: Yale University Press, 2012), 111.

[109] Reed, *Counseling in Medical Genetics*, 2.

[110] Carlson originally could not find a publisher for his "prehistory" of eugenics, *The Unfit: A History of a Bad Idea.* He eventually cornered James D. Watson after a lecture and pitched the book idea to him. Watson famously discovered the double helix structure of DNA with Francis Crick in 1953 and was then serving as director of Cold Spring Harbor Laboratory (CSHL), the institutional descendant of the ERO. Watson arranged for Carlson's book to be published by CSHL Press. Elof Axel Carlson, "Elof Axel Carlson - Personal Retirement Story," SUNY Retirees Service Corps, accessed 8 April 2019, https://www.suny.edu/retirees/retirement-stories/elof-axel-carlson/. In January 2019, Watson was disgraced and stripped of all honors awarded to him by CSHL due to his repeated statements defending a genetic basis for the supposed differential intelligence levels of racial groups, including the claim that Africans are inherently less intelligent than Westerners.

[111] Elof Axel Carlson, *Human Genetics* (Lexington, MA: D. C. Heath and Company, 1984), 132.

[112] Paul, *Controlling Human Heredity.* For a similar observation, see Kelves, *In the Name of Eugenics*, 257.

[113] Mark S. Frankel, *Genetic Technology: Promises and Problems* (Washington, D.C.: Program of Policy Studies in Science and Technology, George Washington University, 1973), 93.

[114] Ibid., 35. See also ibid., 20, 30, and 34.

[115] Ibid., 78.

[116] Carlson, *Human Genetics*, 128.

[117] For a survey of this research, see Anne Kerr and Tom Shakespeare, *Genetic Politics: From Eugenics to Genome* (Cheltenham: New Clarion Press, 2002), 120-141.

[118] Quoted in Stern *Telling Genes*, 140 and 142.

[119] Stern, *Telling Genes*, 50 and 81.

[120] Ibid., 427 and 431. "Differential breeding" encompasses both positive and negative measures for eugenic improvement.

[121] Ibid., 422.

[122] O. F. Cook, "Eugenics and Breeding," *Journal of Heredity*, vol. 5, no. 1 (January 1914): 33.

[123] Quoted in Kline, *Building a Better Race*, 122.

[124] Lauran Neergaard, "AP-NORC Poll: Edit Baby Genes for Health,

Not Smarts," APNORC, 28 December 2018, accessed 5 April 2019, http://apnorc.org/news-media/Pages/AP-NORC Poll-Edit-baby-genes-for-health,-not-smarts.a

Conclusion

[1] Charles B. Davenport,*Heredity in Relation to Eugenics* (New York: Henry Holt and Company, 1911), v.

[2] Anonymous, "Ode to a Pedigree Chart," *Eugenics Newsletter*, 1921, Box 13, File 11, Eugenics Record Office Collection, Cold Spring Harbor Laboratory Library & Archives, Cold Spring Harbor, New York, unpaginated.

[3] This passage and all those following from the cross-examination can be found in Laughlin, *Eugenical Sterilization*, 309.

[4] Kelves, *In the Name of Eugenics*, 251-68. Kelves borrows the phrase from molecular biologist Robert L. Shinsheimer who used it in a 1969 article to distinguish the possibilities of genetic engineering from Galton's notion of eugenics.

[5] Richard Lynn, *Eugenics: A Reassessment* (Westport, CT: Praeger Publishers, 2001). Lynn's theory of Chinese supremacy is not the only wild claim in the book. For example, he argues that the HIV/AIDS epidemic is largely the result of the unrestrained copulation of "psychopaths." Unmarried teenage mothers are also deemed "psychopaths" who "inflict damage on society" by reproducing (122-3).

[6] Nicholas Agar, *Liberal Eugenics: In Defence of Human Enhancement* (Malden, MA: Blackwell Publishing, 2004), 5.

[7] Even historians of eugenics joined in the symbolic pat-on-the-back. Elof A. Carlson wrote that some of Davenport's analyses are "no different than that of a genetic counselor today," and Philip R. Reilly called the text the "first handbook on genetic counseling." *Davenport's Dream: 21st Century Reflections on Heredity and Eugenics*, eds. Jan A. Witkowski and John R. Inglis (Cold Spring Harbor: Cold Spring Harbor Laboratory Press, 2008), 72 and 160.

[8] Matt Ridley, "Forward," in *Davenport's Dream*, x.

[9] Ibid., xi.

[10] Rose, *The Politics of Life Itself*, 62.

[11] See Chapter 2 for a description of how nation and race were differentiated in American eugenics.

[12] Lynn, *Eugenics*, 28-9.

[13] A prime example of this misconception can be found in Cathy Moran Hajo's recent history of birth control clinics: "Clinics did not, as many eugenics programs did, put the community's needs first. And birth control clinics were voluntary." Hajo, *Birth Control on Main Street*, 104. By pointing out that the clinics were voluntary, Hajo is implying that they could not possibly serve a eugenic purpose.

[14] Hamish Anderson, "Preimplantation Genetic Diagnosis: From Clinic to Eugenic Fears and Disability Concerns," BMS thesis, (University of Otago, 2012).

[15] Steven D. Edwards, "An Attempt to Ground the Expressivist Objection

in Actual Practice Flounders," *AJOB Primary Research*, vol. 2, no. 2 (August 2011): 21. The first two justifications reiterate typical prejudices against people with disabilities that are not in touch with their lived reality. They were also common arguments for eugenic measures to quarantine and sterilize the "unfit," "feebleminded," and "mentally defective."

[16] Anne Kerr and Tom Shakespeare, *Genetic Politics: From Eugenics to Genome* (Cheltenham: New Clarion Press, 2002); Marsha Saxton, "Why Members of the Disability Community Oppose Prenatal Diagnosis and Selective Abortion," in *Prenatal Testing and Disability Rights*, eds. Erik Parens and Adrienne Asch (Washington, D.C.: Georgetown University Press, 2000); Marsha Saxton, "Disability Rights and Selective Abortion," in *The Disability Studies Reader*, Second Edition, ed. Lennard J. Davis (New York: Routledge, 2006); Ruth Hubbard, "Abortion and Disability: Who Should and Who Should Not Inhabit the World?" in *The Disability Studies Reader*; Tom Shakespeare, "Choices, reasons, and feelings: Prenatal Diagnosis as disability dilemma," *ALTER, European Journal of Disability Research*, vol. 5 (2011): 37-43.

[17] Kerr and Shakespeare, *Genetic Politics*, see especially Chapters 8 and 9. I examine some of these issues in Chapter 4. Shakespeare elsewhere calls the tendency toward the routinization of prenatal testing in obstetrics a "conveyor belt impetus" ("Choices, reasons, and feelings," 41).

[18] Hubbard, "Abortion and Disability," 102.

[19] Saxton, "Disability Rights," 112.

[20] Disabled Peoples International, *Disabled People Speak on the New Genetics* (London: Disabled Peoples International Europe, 2000).

[21] Eva Feder Kittay with Leo Kittay, "On the Expressivity and Ethics of Selective Abortion for Disability: Conversations with My Son," in *Prenatal Testing and Disability Rights*; James Lindemann Nelson, "The Meaning of the Act: Reflections on the Expressive Force of Reproductive Decision Making and Policies," in *Prenatal Testing and Disability Rights*; Nancy Press, "Assessing the Expressive Character of Prenatal Testing: The Choice Made or the Choice Made Available?" in *Prenatal Testing and Disability Rights*; Steven D. Edwards, "Disability, identity and the 'expressivist objection,'" *Journal of Medical Ethics*, vol. 30 (2004): 418-420; Steven D. Edwards, "An Attempt."

[22] Other scholars have focused on this aspect of PND rather than the message. See Hubbard, "Abortion and Disability"; Michael Rembis, "Disability and the History of Eugenics," *The Oxford Handbook of Disability History*, eds. Michael Rembis, Catherine J. Kudlick, and Kim E. Nielsen (New York: Oxford University Press, 2018). On the issue of treating "defective" fetuses as people with disabilities, Saxton has provided an excellent discussion from an intersectional theoretical viewpoint combined with first-hand experience from disability rights and feminist activists. I refer the reader to her essay ("Disability Rights and Selective Abortion"), rather than take up such a complicated issue in this conclusion.

[23] Troy Duster, *Backdoor to Eugenics*, Second Edition (New York: Rutledge, 2003), x.

[24] Edwards, "Disability."

[25] Rose, *The Politics of Life Itself*, 51

[26] Shakespeare, "Choices, reasons, and feelings"; Kerr and Shakespeare, *Genetic Politics*.

[27] Paul A. Lombardo, "How to Escape the Doctor's Dilemma? De-Medicalize Reproductive Technologies," *Journal of Law, Medicine & Ethics*, vol. 43, no. 2 (Summer 2015): 326-329.

[28] Loretta Ross, "Understanding Reproductive Justice: Transforming the Pro-Choice Movement," *Off Our Backs*, vol. 36, no. 4 (2006): 16.

[29] Loretta J. Ross and Rickie Solinger, *Reproductive Justice: An Introduction* (Oakland: University of California Press, 2017), 102.

[30] Quoted in Kimala Price, "What is Reproductive Justice?: How Women of Color Activists Are Redefining the Pro-Choice Paradigm," *Meridians: Feminism, Race, Transnationalism*, vol. 10, no. 2 (2010): 54

[31] Quoted in Roberts, *Killing the Black Body*, 286.

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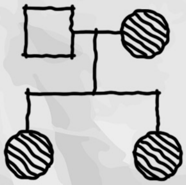
History of Science / Comparative Literature

Eugenics, the science of improving human reproduction, was enthusiastically embraced in early twentieth-century America. Offering the first thorough analysis of eugenicists' diagnostic and therapeutic techniques, this book traces the paper-based tools used to convince a willing public of its inherent potential for disease, deviance, and disability and justify any means for curtailing that potential. During this period, the medium of paper was used for not just communicating the ideas and directives of eugenics programs, but also storing, analyzing, diagnosing, and computing the particularities of each individual's genetic health. The development and deployment of devices and practices as varied as after-admission blanks, individual analysis cards, pedigree charts, personality tests, punch cards, case records, and experimental literature coalesced into a veritable arsenal of paper weapons by mid-century.

These innovative techniques consolidated social hierarchies of race, sex, and disability with scientific facts and ways of seeing that continue to impact American attitudes toward health, reproduction, and identity. Against the dominant historiography of the last couple decades that treats bio-ethical issues related to eugenics as an alternative between choice and control, this new archival research reveals that many eugenicists encouraged personal choice to accomplish their plans for racial betterment. This revelation challenges the widely held belief that reproductive autonomy is the panacea for authoritarian eugenics. As reproductive and genetic technology rapidly change popular conceptions about what a person is, can be, and should be, it is more vital than ever to locate these perspectives and decisions in their historical context.

Jake Nabasny earned his PhD in Comparative Literature from the University at Buffalo. During the pandemic he left academia and now works as a cloud support engineer specializing in identity and access management.



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