

Chapter 1

Genetics, Politics and Society

1.1 Eugenics

Francis Galton coined the word *eugenics* in his 1883 book *Inquiries into Human Faculty and Its Development*. The term itself derives from the Greek prefix *eu* (εὐ) meaning good or well and the Greek word *genos* (γένος) meaning race, kind or stock.

In 1904, Galton gave a presentation to the Sociological Society in London about eugenics. His presentation, along with invited public commentary, appeared in the *American Journal of Sociology* with virtually identical versions (sans commentary) appearing in *Nature* and, with commentary, in *Sociological Papers* (Galton, 1904a,b, 1905). In these papers, he defined eugenics as “the science which deals with all influences that improve and develop the inborn qualities of a race.” (It is crucial to recognize that the word “race” was used at that time in an equivocal fashion. It could denote the term as we use it today, but it could also refer to a nationality—e.g., the English race—or even a breed of horse or dog. Galton himself meant it in the generic sense of “stock.”) Galton’s view of the future combined fervor with caution:

I see no impossibility in eugenics becoming a religious dogma among mankind, but its details must first be worked out sedulously in the study. Overzeal leading to hasty action would do harm, by holding out expectations of a near golden age, which will certainly be falsified and cause the science to be discredited.

By “the study” Galton was referring to academic research. His message was strikingly clear—get the science right before implementing eugenics. Recall that at the time, there was still considerable debate over what was inherited and “Mendel’s units,” as they were then termed, were far from universally accepted.

The commentaries that followed his talk provide an illuminating snapshot of the differing attitudes towards eugenics at the time. Some samples: Playwright George Bernard Shaw takes a decidedly positive tone: “. . . there is now

no reasonable excuse for refusing to face the fact that nothing but a eugenic religion can save our civilization from the fate that has overtaken all previous civilizations.”

Physician Henry Maudsley¹ applauds Galton’s caution but politely emphasizes his reservations about the whole eugenic enterprise: “I am not sure but that nature, in its own blind impulsive way, does not manage things’ better than we can by any light of reason” In other words, “You can’t fool Mother Nature.”

Author H.G. Wells takes issue with one of Galton’s premises—that there are some traits universally regarded as good or bad. Consider crime: “I am inclined to believe that a large proportion of our present-day criminals are the brightest and boldest members of families living under impossible conditions.”

Physician Robert Hutchison², among others, questions the whole role of inheritance and advocates “ . . . it is not so necessary to improve the raw material [i.e., individual people], which is not so very bad after all, as it is to improve the environment in which the raw material is brought up.”

Even feminism has a voice. Mrs. Dr. [Alice] Drysdale Vickery³ states, “I hold very strongly that the question of heredity, as we study it at present, is very much a question of masculine heredity only, and that heredity with feminine aspects is very much left out of account. Mr. Galton told us that a certain number of burgesses’ names had absolutely disappeared; but what about the names of their wives, and how would that consideration affect his conclusion? In the future, the question of population will, I hope, be considered very much from the feminine point of view; and if we wish to produce a well-developed race, we must treat our womankind a little better than we do at present. “ Her pique about “burgesses” refers to Galton’s *Hereditary Genius* (Galton, 1869, 1891) that studied only men.

Galton himself has the last say and was clearly not pleased with the comments: “When this debate began, I was extremely unhappy at the quality of it. . . . if the society is to do any good work in this direction, it must attack it in a much better way than the majority of speakers seem to have done tonight.”

One might expect opposition from sociologists, but many of the commentators were physicians, writers, and scholars in other areas. Still, we see that even in England, the birthplace of eugenics and social Darwinism, there were cautionary notes and well as direct opposition to the new movement.

To understand the further development of eugenics, we must first divert attention to a movement that has become known as social Darwinism. A union between some eugenic theories and social Darwinism led to disastrous consequences.

¹Henry Maudsley was a psychiatrist who founded what became known as the Maudsley Hospital in South London devoted to the teaching, research, and care of the mentally ill.

²Sir Robert Grieve Hutchison was a prominent radiologist who discovered Hutchison’s disease (a form of cancer) and pioneered the use of radiation therapy for some cancers.

³Alice Drysdale Vickery was “among the first five women to achieve a medical qualification in the British Isles, [and] was one of the pioneers of the women’s progressive movements, and especially of that for birth control” (obit in the *British Medical Journal*, 1(3553):276).

1.2 Social Darwinism

The encyclopedia Britannica defines social Darwinism as “the theory that persons, groups, and races are subject to the same laws of natural selection as Charles Darwin had perceived in plants and animals in nature.” Hence, person competes against person, tribe against tribe, culture against culture, and race against race. Winners deserved a position of dominance and losers a role of subservience. In Victorian England, where the philosophy was most prominent, it was an excuse for colonialism.

There are two widespread misconceptions about social Darwinism. The first, a downright myth, is that the philosophy originated with Darwin. Actually the phrase came into popular use in the mid 20th century⁴, and Darwin, were he alive at the time, would never have been an advocate. From biographical accounts (e.g., Browne, 1996, 2003), Darwin abhorred slavery, considered racial differences as largely superficial, and viewed differences between modern industrial cultures and other cultures as environmental in origin. Clearly, would have shuddered had he heard his name associated with such a movement.

A second misconception is that the philosopher Herbert Spencer developed the theory. Spencer outlined his thinking in 1857, two years before the publication of *The Origin of Species*. He was a committed evolutionist, albeit of the Lamarckian type, who believed that evolution moved from simplicity to increasing complexity and applied this view of evolution to psychology, morality, society and many other areas. Spencer advocated allowing the “fittest” to prosper, and it was he, not Darwin, who coined the term “survival of the fittest.”

Spencer’s initial theory went far beyond social Darwinism, so the most precise phrasing is to say that social Darwinism selectively drew on Spencer’s work. Spencer believed that evolution was purposeful (teleological) and would lead to a state of perfection. He also had what would be called today “a strong Libertarian streak” that would prohibit society, government, and popular movements from interfering in the evolutionary process⁵.

Instead, social Darwinism gradually evolved through a conglomeration of disparate sources—the writings of Darwin and Spencer, Hegel’s idea of the evolution of societies, and the Thomas’ Hobbes view of nature as “brutal and harsh.” One form of social Darwinism arose, promulgating that some “races” (recall that the term, as used at that time, also includes ethnic groups and nationalities) are naturally superior to others. In Germany, after World War I, the Nazi party adopted this thinking. Coupled with a virulent interpretation of eugenics, this led to the Holocaust.

⁴The term became widely used after Hofstadter’s 1944 work, *Social Darwinism in American Thought*.

⁵In his latter years, Spencer tempered his ideas on intervention (Carlson, 2001, p. 232).

1.3 Eugenics Redux: Early promulgation

True to his commitment to eugenics as a science first, Galton endowed a Chair of Eugenics at University College, London. In Victorian and Edwardian England, however, there was great concern that the fertility of the lower classes, relative to the middle class and aristocracy, would eventually turn the nation into an unmanageable horde. Galton's caution about first getting the science right was lost in the enthusiasm for a new "science" that promised to prevent the perceived degeneration of society.

The eugenics movement, moreover, was not unique to England. In Germany, Alfred Ploetz proposed a theory of Rassenhygiene (racial hygiene) in 1897, established a journal devoted to that topic in 1904, and a society to promulgate eugenics in 1905. In the United States, zoologist Charles Davenport established the Eugenics Record Office (ERO) at Cold Spring Harbor in 1910. By the 1930s, most industrialized nations had some form of eugenics organizations (Kevles, 1998).

Eugenics also became part of popular culture and, initially at least, was not strongly associated with political ideology. In America, Republican Theodore Roosevelt and Democrat Woodrow Wilson espoused it. In England, Tory Winston Churchill considered it was a good idea as did the Socialist Party as well as devoted Communist—and geneticist—J.B.S. Haldane.

What form did early eugenics take? You name it and you can probably find it. Carlson (2008, pp. 273-276) presents what amounts to a smorgasbord of different philosophies and approaches to eugenics in Europe. Even Bolshevik Russia entertained a short-lived eugenics movement.

In a general sense, Galton distinguished positive eugenics from negative eugenics. In positive eugenics, people with desirable traits are encouraged to marry young and have large families. Most theorists of this kind advocated monetary incentives, including tax relief, as the positive eugenic carrot. Negative eugenics discourages people with undesirable traits from reproducing or having large families. Both types may or may not be compulsory. Prohibition against abortion for talented parents is an example of compulsory positive genetics, while forced sterilization of the mentally ill is compulsory negative eugenics.

The proposed techniques to implement eugenics were even broader than the philosophical variations. Some were political and included tax incentives and disincentives and physical segregation of the "unfit." Others were biological: birth control, prenatal care, sterilization (both voluntary and compulsory), selective abortion, infanticide, euthanasia, and, later, downright murder.

Hence, eugenics was never a unified movement, irrespective of many who portray it as such. There was a variety of different, often incompatible, proposals. Some eugenicists (Galton and Haldane) argued against anything but voluntary compliance. Others, like the American Madison Grant, preached for compulsory ethnic/racial segregation. Yet others championed mandatory sterilization.

Most social Darwinists, however, adopted what could be termed *compulsory negative genetics*. Their view was that the "detritus of society" lacks the intellectual skills and moral fiber to limit reproduction on their own, so the state

must intervene to ensure that they do not reproduce. What mechanism was available at that time to meet this goal? Compulsory sterilization. Most people today, were they asked to define eugenics, think of the social Darwinistic flavor of eugenics.

1.4 Eugenics and Social Darwinism in Practice: The United States

It is impossible to outline all the examples of eugenics and social Darwinism. Instead, let us examine two major movements in the United States in which eugenics played an important role: (1) compulsory sterilization and (2) immigration restrictions.

1.4.1 Compulsory sterilization

Compulsory sterilization was eventually practiced in a large number of nations, but let us explore this movement in one nation—the United States—that pioneered its use. In the 1890s and early 1900s, legislation mandating compulsory sterilization was introduced in Michigan and Pennsylvania but never became law. Indiana was the first state (and according to Carlson, 2001, pp. 2-3, the world), to pass a compulsory sterilization law. Within ten years, 15 other states had passed similar laws.⁶

Some historians attribute these state laws almost exclusively to eugenics. That is debatable (Paul, 1995, 1998). Few of these legislatures and governors specified that the purpose of sterilization was to “improve the gene pool.” Instead, with the increasing influence of Darwin and Galton, many physicians erroneously attributed familial aggregation to genetics alone. At the same time, there was an implicit, nihilistic attitude towards environmental intervention. The prevailing attitude was “if it’s genetic, you can’t do anything about it.” This extreme hereditarian view in medicine melded with a natural desire of government to curtail expenditures. Hence, the major impetus for early sterilization laws may have been monetary. The thinking was along these lines: “criminality is genetic and we cannot do anything about that, so let’s sterilize serious criminals so they do not have children who we must eventually support at the taxpayer expense.”

Nevertheless, some early eugenicists enthusiastically endorsed these laws and it was not long before they lent a sense of scientific respectability to them: “sterilization saves money” morphed into “sterilization not only saves money but it is also good for the gene pool.” Charles Davenport is an apt example. In 1911, he published a textbook in eugenics (Davenport, 1972) and was later elected to the National Academy of Sciences. The quality of his science, however, comes far from meeting contemporary standards. Davenport had a penchant for collecting

⁶See Lombardo (2008, Appendix C) for a list of states that adopted legislation on compulsory sterilization.

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pedigrees and then interpreting familial aggregation as evidence of inheritance. For example, he discovered the “inherited, racial trait” of *thalasophilia*, that he defined as love of the sea or sea-lust (Davenport, 1919, p. 25).

While Davenport provided the academic glitter, his protégé, Harry Laughlin became a passionate apostle of eugenics and underwrote its implementation. Tapped to supervise Davenport’s ERO, he soon drafted a model eugenics law, vigorously marketed it to state legislatures, and often appeared as an expert witness in cases involving eugenic laws and sterilization. Later drafts of Laughlin’s model statute were adopted in some states and also by Nazi Germany.

This form of eugenics was not unopposed. Among others, the lawyer Clarence Darrow, the essayist Walter Lippman, and the geneticist Thomas Hunt Morgan all rallied against compulsory sterilization. Sometimes their arguments held the day; other times, the eugenicists prevailed.

Implementation of compulsory sterilization was sporadic. New Jersey and Nevada both passed laws in 1911 but report no operations before the laws were repealed in, respectively, 1920 and 1961; California was an enthusiastic implementer (Lombardo, 2008). Virginia also earnestly adopted the practice, so it is not surprising that it was home for a major test case taken to the U.S. Supreme Court—*Buck v. Bell* in 1927.

1.4.1.1 **Buck v. Bell**

Carrie Buck was deliberately chosen by Virginia officials to be the subject of a test case for its new sterilization law, developed after Laughlin’s model statute. At the time, many state sterilization laws had been overturned or amended in higher court decisions, so Virginia (along with Laughlin) wanted this test case to iron out potential problems with its own law. It was an ominous decision.

Carrie was a teenager who had just given birth to an illegitimate child in the Virginia State Colony for Epileptics and Feeble-minded. Although she was living with foster parents, John and Alice Dobbs, they had her committed to that institution during the latter stages of her pregnancy. At the time of her admission, both Carrie and her mother were judged to be “feeble-minded.”⁷ The “Bell” in the case was John Bell, the superintendent of the Virginia Colony housing Carrie.

The argument presented to the local court was that Carrie’s mother, Emma, was feeble-minded, Carrie herself was feeble-minded as was her sister Doris, and Carrie’s daughter Vivien, at seven months of age, was called “backward.” Laughlin, appearing as an expert witness, testified that the evidence “demonstrate[s] the hereditary nature of the feeble-mindedness and moral delinquency described in Carrie Buck. She is therefore a potential parent of socially inadequate or defective offspring” (Lombardo, 2008, p. 135). The original verdict was in favor of Bell.⁸

⁷At the time, “feeble-minded” was a quasi-scientific category for what today would be regarded today as someone with a low score on a standardized intelligence test. The category was often applied in the absence of formal psychometric testing.

⁸Lombardo (2008) devoted a whole chapter to the inadequacy of Carrie Buck’s defense.

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The Virginia Court of Appeals upheld this ruling, so the case was taken to the U.S Supreme Court. There, Oliver Wendell Holmes, Jr., in an 8-1 majority opinion, wrote that “three generations of imbeciles is enough.” That decision upheld the constitutionality of compulsory sterilization, and with some modifications, is still in effect today.

1.4.1.2 Buck follow up

It would be remiss to present the legal results of *Buck v. Bell* without also presenting the empirical facts and follow up of Carrie and her family. After the decision, Carrie descended into obscurity. Then, in 1979 and subsequent years, her life flashed into the nations eyes because of an exhaustive search by K. Ray Nelson (the director for the descendent institution of the Virginia Colony) that located Carrie and her sister Doris. Subsequent publications by journalist George M. Stoddart (picked up by papers such as the *Washington Post* and *New York Times*) and record-digging by academician Paul Lombardo rounded out the picture.

Carrie’s pregnancy was not a result of an unruly and promiscuous nature on her part. Instead, Clarence Garland, a nephew of her foster parents had, in Carrie’s words, “forced himself upon me” (Lombardo, 2008, pp. 250-251). The decision to admit her to the Virginia Colony may well have been an attempt to cover up this crime and save her foster parents, the Dobbies, from social embarrassment. Indeed, the Dobbies account of Carrie was contradictory. At one point, they denied that Carrie ever exhibited “epilepsy, . . . fits or convulsions, . . . or spasms of any kind.” Yet at another point, they dated the onset of epilepsy to “since childhood” (Lombardo, 2008, pp. 103-104). Carrie’s school report cards suggest that there was no problem with her deportment and that she attained adequate—neither illustrious nor failing—grades. She was never held back in school and, although she dropped out at sixth grade, her teachers recommended her for promotion.

Of particular interest is the school record of her daughter, Vivian. She excelled in deportment. Although she was overall an average—i.e., a B—scholar, in one semester made the honor role. She died at age 8, but her record indicates that she was far from being a “third generation imbecile.”

One of the saddest stories is that of Carrie’s sister, Doris. Part of her early years were spent in the Virginia Colony where she was described as “incorrigible . . . untruthful and in danger of being a moral delinquent” (Lombardo, 2008, p. 186). The board of physicians there recommended sterilization, noting that Doris “was of ample mind to fully understand the nature and consequences of the operation” (Lombardo, 2008, p. 187).

Doris later married and in her sixties recounted that one of her biggest regrets in life was the fact that she and her husband, despite the couple’s best efforts, never had children. When informed that she had been sterilized, she recalled that the doctors said she had to have an “operation” for her own good.

That is indeed an important issue but one that I cannot devote sufficient time to in this brief review.

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This was a refrain echoed by thousands of Virginian women, Carrie Buck herself being one of them. As Lombardo (2008, p. 251) concludes,

It became clear that the procedural protections of the 1924 [Virginia] law, while providing a pretense for legality, were rarely followed in any meaningful way. Many patients were sterilized as teenagers and remained uncertain about the nature of the surgery they had endured well into adulthood.

In 2001, after much debate, the Virginia legislature voted to formally apologize to the victims of compulsory sterilization. Then governor Mark Warner did so in 2002.⁹ In that year, Virginia mandated a memorial to Carrie Buck. Today, there is a historical plaque in Charlottesville, VA, devoted to Buck v. Bell. It concludes, “Later evidence eventually showed that Buck and many others had no ‘hereditary defects.’ She is buried south of here.”

1.4.2 Immigration legislation

Since its founding, the United States had an immigration and naturalization policy, although it was initially regulated by the states and not the federal government. During most of this period, policy toward immigration was relatively laissez faire. The first federal attempt at regulation was a law passed in 1875 prohibiting criminals and prostitutes from entering the country. Subsequently, the Supreme Court ruled that the federal government, not the individual state, was responsible for immigration (Congressional Budget Office, 2006). .

Although prejudice against waves of ethnic immigrants was ubiquitous, formal attempts at the federal level to regulate immigration appeared limited to a series of laws passed in the late 1880s and 1890s. Several of these laws were directly aimed at Chinese immigrants. Immigration increased rapidly during the transition to the 20th century, reaching a peak of almost 1.3 million in 1907. The sheer numbers prompted formation of numerous organizations dedicated to limiting immigration. In 1917, Congress past the Immigration Act (H.R. 10384; Public Law 301; 39 Statute 874) which extended the prohibition of prostitutes and criminals to include “idiots, imbeciles, epileptics, alcoholics, . . . polygamists and anarchists” as well certain classes of people with physical and mental disabilities.

Immigration had diminished during the first World War, but the post war rebound heralded a resurgence in calls for restriction. In 1921, the United States passed the Emergency Quota Act (H.R. 4075; Public Law 67-5; 42 Statue 5), often called the most dramatic change in immigration policy in the nation’s history (Higham, 1963). Here, the yearly number of immigrants was limited to 3% of the country of origin stated by respondents to the 1910 census. This part of the law deliberately aimed at reducing immigration from Southern and

⁹Oregon, South Carolina, North Carolina, California and other states quickly followed Virginia’s lead.

Eastern Europe, particularly Italians and Jews. Three years, in the Johnson-Reed Act (H.R. 7995; Pub.L 68-139; 43 Stat 153), these quotas were reduced to 2% and became permanent.

Did Social Darwinism and eugenics play an important role in this legislation? Yes and no. The initial laws limiting Chinese immigration occurred before the popularity of either of the two movements so it was probably influenced more by overt racism than by genetics. We must also recall that prejudice against immigrants has always been part of the national psyche. Shortly after the Revolution, many despised the “Wild Irish,” that “mass of vicious and disorganized characters who cannot live peaceably at home” (Clark, 1973, p. 15). Several decades later, a professor at the University of Pennsylvania regarded them as a “lower order of mankind, . . . repellant to those who are further advanced on the social scale” (Clark, 1973, p. 35). Today, the descendants of this “lower order” of humanity are indistinguishable from the progeny of those who were “advanced on the social scale” (Greeley, 1988).

The same type of bias was probably the major motivation behind the restrictive immigration policy in the early 1920s. The role of eugenics was probably limited to a supporting role. During the 1921 and certainly the 1924 legislation, eugenic concerns were definitely influential. The chair of the House Committee on Immigration and Naturalization looked so favorably on the testimony of eugenicist Harry Laughlin that he was appointed an advisor to the committee. But eugenics was probably not the major motivation behind the legislation. Instead, it was used as an additional and “scientific” argument to bolster the ideas of those who already regarded contemporary immigrants as the new “Wild Irish.” There was probably more concern about allowing Anarchists and Bolsheviks into the country than there was about people with “inferior” genes.

1.5 Eugenics and Social Darwinism in Practice: Germany

Like Britain, America, Brazil, and many other industrialized nations, the eugenics movement in Germany, along with concepts of racial superiority, grew in the late 1800s and early 1900s. They were not, as Black (2004) maintains, a direct exportation of eugenics from the United States (Allen, 2004). Well before Indiana’s 1907 sterilization law, Alfred Ploetz in the mid 1890s proposed the term racial hygiene (*Rassenhygiene*) in his text *Grundlinien einer Rassenhygiene* (Basics of Racial Hygiene). In 1904, Ploetz founded a journal for the study of that (*Archiv für Rassen-und Gesellschafts Biologie* or Archive for Racial and Social Biology), and a year later established a society to study and promote that issue (*Gesellschaft für Rassenhygiene* or Society for Racial Hygiene). Ploetz’s concept of “race” was clearly directed at nationality and implied the superiority of German and other associated ethnicities.

At the same time, pre-Nazi eugenic thought did not always follow Ploetz. The renowned physician and academician Wilhelm Schallmeyer enthusiastically

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supported eugenics, but as Weiss (1987, p. 148) reports,

Schallmayer, of course, was adamantly opposed to the racist connotation of Rassenhygiene—so much so that he never employed the word himself. In his view, race hygiene neither presupposed the absolute superiority of any so-called anthropological race, nor did it strive to improve one "race" at the expense of another. Though Schallmayer was certainly not without personal prejudices concerning the relative value of the three major races, he made no attempt to rank-order the various "racial groups" within the white race, for he believed the differences to be meaningless, or at best superficial.

Eugenics in Germany bifurcated along the Ploetz versus Schallmayer views about nationality. With the Nazi ascendance in 1933, Ploetz's view won the day.

In many people's mind, the words "eugenics," "Nazi," and "Holocaust" are synonymous. It is indeed true that the concepts of eugenics and racial inferiority were at the heart of the Holocaust, but Nazi eugenics extended beyond the Holocaust. Also, some Nazi programs, often considered to be motivated by eugenics, were initiated and maintained for other reasons. Below, we examine the major Nazi programs associated with eugenics.

1.5.1 Nazi Germany: Compulsory sterilization

In 1933, the Nazi party gained control of Germany and soon turned the shaky democracy into a Nazi dictatorship. That same year, they passed the Law for the Prevention of Hereditarily Diseased Offspring mandating physicians to register all cases of "hereditary illness," a broad category that included schizophrenia, manic-depression, alcoholism, and epilepsy. Another provision of the law was compulsory sterilization if a "genetic health court" concluded that the person's children were likely to suffer from the same disorder. This law was researched and deliberately modeled after existing compulsory sterilization laws in the United States and Harry Laughlin's model sterilization law. The Nazi's, however, went much further than most U.S. states. Through a dedicated propaganda effort using public posters, film documentaries, and mandatory school textbooks, they portrayed compulsory sterilization as a national, patriotic effort (Bachrach, 2004). In the initial years of the sterilization policy, about 65, 000 people were sterilized annually, most for "congenital feeble-mindedness" (Friedlander, 1995, pp. 27-29).

The 1933 sterilization law was not aimed at ethnic groups, yet the program was later extended to include children of German-African parentage (Samples, 1996). Jews and other groups were not specifically targeted but many were used as experimental "guinea pigs" to try out new medical procedures for sterilization (NAZI DOCTORS book).

1.5.2 Nazi Germany: “Racial hygiene”

The concept of Aryan genetic superiority, long preached in Nazi propaganda, was implemented in 1933 and 1934 with a series of laws that prevented Jews from engaging in an ever-growing list of occupations, land ownership, participation in national health insurance, and military service. Later laws forbade business ownership, expelled Jews from German schools, and required special registration.

In 1935 the Nürnberg (Nuremberg) laws were passed. These laws had three important consequences. First, they dictated precise criteria as to what constituted a true German (person with four German grandparents), a “mixed-blood” or *mischling* (a person with one or two Jewish grandparents), and a Jew (by default, none of the above). Second, they prohibited marriage (and even intercourse) between a German and a Jew. Third, they embellished existing laws constricting the civil rights of Jews (e.g., preventing them from displaying the German flag).

“Racial hygiene” was not limited to Jews. The Roma (Romani or gypsies) were first considered Indo-European, but were later victimized in the Holocaust (Berenbaum, 1990). Sub-Saharan Africans and Asians were considered to be at the lowest levels of the racial hierarchy. Slavs were “*Untermenschen*” or sub-humans. Hitler wanted to conquer their territory, confiscate their property and transfer it to German hands, and subjugate them as slaves (see Höhne, 1969, Chapter 12).

1.5.3 Nazi Germany: *Lebensborn* (Font of Life)

Not all of the eugenics practiced by the Nazis was negative eugenics. In 1935, Reichsführer Heinrich Himmler established the *Lebensborn* program under the auspices of the Schutzstaffel (SS). Many of the records of the *Lebensborn* project were destroyed before the end of World War II, so a significant number of the factual aspects of the program have been lost. As a result, there is a great deal of speculation about *Lebensborn* in secondary sources that I, lacking knowledge of German, cannot verify from the primary documents. What follows may admittedly be an inaccurate description of some aspect of the program.

The program’s clear intent was to increase the number of genetically pure Aryans in Germany. According to Lifton (1988, p. 43) Himmler stated that the purpose of *Lebensborn* was to “breed the SS into a biological elite, . . . [a] racial nucleus from which Germany could replenish an Aryan inheritance now dangerously diluted through generations of race-mixing.” There were strict requirements involving not only ancestry but also anatomical and morphological measurements to establish whether potential participants could participate in the program.

Eventually, two dozen houses were devoted to the project, most in Germany, with the rest scattered throughout occupied territories in Western Europe. There were three purposes of these houses. The first was to provide places of refuge for Aryan women—many of whom were unmarried—to eschew

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abortion and give birth to their babies. The second purpose was to place these children into suitable Aryan households where government stipends would not only encourage adoption but also assist in paying for the child's upbringing. The third purpose was to provide a location for liaisons between suitable Aryan men, mostly SS members, and women willing to be impregnated and bear children in order to "better" the German gene pool.

This third purpose is well documented—Himmler himself sired a child (Padfield, 1990, p. 366). The extent to which the centers acted as "stud farms," however, is questionable. Many participants were the married wives of SS officials who willingly gave their children up to avoid the burden of childrearing and increase the likelihood of having another suitably Aryan child quickly.

After the onset of the war, babies and infants in Eastern Europe (mostly Poland) who were judged to be sufficiently Aryan in physical features (mostly "repatriated" to Germany and adopted through the *Lebensborn* program. Many of these children were the result of temporary liaisons between SS personnel and women in the occupied nations. The numbers of these coerced adoptions is unknown (see Toland, 1976, p. 764) Many of these youngsters—the exact percentage being unknown—were forcibly removed from their parents and, upon arrival and subsequent adoption in Germany, were told that their parents did not want them.

These kidnapped children, as well as the offspring of the SS, did not want for adoption. Henry and Hillel (1976) argue that the number of putative adoptive parents was considerably greater than the number of adoptees.

1.5.4 Nazi Germany: "Euthanasia"

Before the Nazi's came to power, radical German eugenicists had coined the phrase *lebensunwertes Leben*, usually translated as "life not worthy of life." Indeed, the concept had been sporadically addressed in jurisprudence and medicine before the Nazi party was formed (Proctor, 1995). Even though the Nazis did not invent the term, many party loyalists favored the idea. Hitler, himself, espoused it in *Mein Kampf* and confided to his intimates that he would institute such a program during the confusion of war when it might be less visible to the public (Friedlander, 1997).

Shortly after the war began, a child was born with severe birth defects. In the past, the child was called the "Knauer" baby but he has recently been identified as Gerhard Kretschmer (Schmidt, 2007). The father, apparently an enthusiastic Nazi, petitioned Hitler to have his child euthanized. Hitler commissioned his personal physician, Karl Brandt, and the head of Hitler's Chancellery, Philipp Bouhler to examine the issue and make recommendations. They favored euthanasia. After Hitler's approval for an official program, they established headquarters at Tiergartenstrasse 4 in Berlin under the name *The Charitable Foundation for Cure and Institutional Care*. Despite the innocuous name, this initiated the program known as Aktion T4, a deliberately vague moniker meant to hide the real purpose of the program—murder.

T4 began with children with birth defects and required parental consent for

euthanasia. Consent was soon dropped and the program expanded to include children—and later adults—who required institutional care at state-run facilities. Soon parents were pressured to send their children to special, state run “facilities” where the child would receive what state officials claimed would be special care superior to the current medical treatments. Later, the parent would be notified that their child had passed away because of pneumonia, appendicitis, or some other fictitious disease.

In some conquered areas targeted for German repatriation, patients were shot, but within Germany, there was a “problem” to find the most efficient means to perform the killings. Lethal doses of morphine, barbituates and other drugs were first tried, but there was the difficulty of keeping the program hidden in an institutional setting. Soon, the preferred means was to “transfer” patients to other institutions under the guise of better medical care. There, the victims were shuttled into automotive vans where they were asphyxiated by carbon monoxide from the exhaust. To increase efficiency, special facilities were constructed so that a large number of patients could be killed at one time in rooms build for that purpose. These were the first gas chambers.

Despite deliberate attempts by the Nazis to keep the T4 program secret, word spread through the medical community and the parents of the victims about the killings. The average German, particularly the clergy, rebelled against the program and in August, 1941, Hitler bowed to public pressure by ordering the termination of the program. In practice, the program continued but was driven further underground. Instead of mass transportation to efficient killing centers, individual doctors and other medical professionals in individual institutions reverted to the earlier mechanisms of lethal injections and starvation. Before Hitler’s stop order in 1941, about 70,000 people had been killed (Friedlander, p. 85, 109). Afterward, the clandestine nature of the operation guaranteed that the number of deaths cannot be accurately estimated.

Aktion T4 and its subsequent reincarnations were not euthanasia programs in the contemporary use of the term. Neither were they eugenics program. Instead, the major motive behind them was an economic one. The term *euthanasia* comes from the Greek prefix *eu* (εὖ) meaning good or well and the noun *thanatos* (θάνατος) meaning death. Today, it carries the connotation of assisted suicide of people suffering in the terminal stages of a painful and untreatable illness. The Nazis had no such compassion. Were the program motivated by eugenics only, then it could have been dealt with under the existing and widely practiced compulsory sterilization program. The Nazis simply wanted to rid themselves of these people because they required resources that could otherwise be devoted to the war effort.

Nevertheless, consider the technology developed during this “euthanasia” program—identification of victims, transportation of them to killing centers, and mass murder in gas chambers. In short, this program played a crucial role in developing the technology for another program, one deliberately aimed at eugenics—the elimination of Jews and Gypsies from Europe.

1.5.5 Nazi Germany: The final solution

The genocide of Jews and Gypsies did not start with mass gassings in extermination camps. Persecution began at the beginning of the Nazi reign and escalated thereafter. After the war started, the initial plan for Jews and Romani in the conquered territories was to sequester them in forced labor camps in order to contribute to the war effort. The fact that these people might be worked to death was of little concern.

That changed with the German invasion of Poland in September, 1939, and then the Soviet Union in June, 1941. The advance of ordinary German soldiers (the Wehrmacht) into these territories was followed up by a special unit of the SS (the Einsatzgruppen) who were charged with the mass killing of undesirables. In Poland, invaded in the previous year, these “undesirables” were largely political and included officers in the Polish army, clerics, the intelligentsia and the political opposition. Later—particularly in the Soviet Union—Jews and Gypsies were added to the list. Thus began the Holocaust.

The initial method of killing consisted of lining up the victims before a pre-dug trench and then shooting them, often with the complicity of the local population. Not only did this prove “inefficient” but it also sparked demoralization and what would now be called post-traumatic stress disorder in some German troops. Late in 1941, the SS copied the mechanism for mass killings used in Aktion T4. They established an extermination camp at Chelmno in occupied Poland. There, victims were loaded into special gas vans and then, to increase efficiency, were asphyxiated by carbon monoxide as the vans drove to mass burial sites.

In January of 1942, the infamous Wannsee Conference took place at the like-named suburb in Berlin. The Holocaust had already begun with the executions in the Soviet Union and the gassings at Chelmo, so this conference did not initiate the terror. Instead, the conference organized the lines of command and coordinated the efforts of different ministries and agencies in the German government and the Nazi party for what by that time was euphemistically called “the final solution to the Jewish question” (Die Endlösung der Judenfrage). As a result, the resources of the Reich became devoted to that end, and the subsequent logistics allowed mass murder at the industrial level.

To hide the program from German citizens, extermination camps were established in occupied nations, particularly Poland, the nation with the largest Jewish population in Europe. Some camps like Chelmno and Treblinka, were devoted exclusively to death—upon arrival, virtually all victims were led straight to the gas chambers. Others, the most notorious of which was the Auschwitz-Birkenau complex, also acted as sites for slave labor where the disease and starvation caused by maltreatment added to the death toll. The technology of killing evolved. Crematoria replaced mass burials and hydrogen cyanide, better known by its trade name of Zyklon B, was substituted for the less efficient carbon monoxide.

The death toll was astounding. Six million Jews were murdered. The number of Roma victims is estimated at 250,000. If one considers the *Untermenschen*

Slavs, then around 3 million Soviet prisoners of war (many killed by the deplorable condition in POW camps) and 2 million non-Jewish Poles could be added to that total. So could an unknown number of homosexuals. Hence, at least 11 million were slaughtered in the name of eugenics. Many more were eradicated for non-eugenic reasons. These include Jehovah's Witnesses, socialists, communists, political opponents, and a significant number of clergy who were critical of Nazi philosophy and practice.

1.6 Genetics and politics in the Soviet Union: Lysenko

Nazi Germany was not the only country and society to meld genetics into politics and in the process, twist the science for political gain. In the antithesis of Fascism—the former Soviet Union—a similar phenomenon occurred. Here, the process was to deny the legitimacy of genetics as a science with practical implications. The effect was to heavily damage that aspect of daily human life most influenced by genetics—food production. The perpetrator was Trofim Denisovich Lysenko.

In the 1930s, forced collectivization of farms in the Soviet Union reduced harvests. Lysenko started life as a peasant who caught the attention of political bosses for his spontaneous ideas on how to increase agricultural yields. Before World War II, agricultural genetics in the Soviet Union was an advanced science with professors like Nikolai Vavilov being rumored to make the Nobel Prize candidate list (Pringle, 2008). Lysenko dubbed genetics as that “capitalistic Mendelian-Morganian science” and at opportune times, portrayed it as antithetical to the dialectic materialism underlying Marxism. He adopted the principle of the inheritance of acquired characteristics and proposed that environmental exposure, not genetics, was the key to agricultural science.

Following this line of thought, he developed a theory of “vernalization” for winter wheat. In the past, winter wheat had been deliberately bred for its hardiness to cold. It was planted in the fall, remained dormant through the cold of winter, and then sprouted in the early spring. Farmers could harvest this wheat, then immediately plant ordinary wheat, and in the autumn, be rewarded with a second harvest. Lysenko disparaged the concept that genetics contributed to the viability of winter wheat. His theory of vernalization held that one could take any type of wheat grain, subject it to cold, and produce winter wheat.

Because of his humble beginnings, Lysenko was awarded great publicity and gained favor with party bosses, including Stalin. He was placed in charge of the Academy of Agricultural Sciences, and from that position of power lashed out at his critics—those following traditional genetics. Many, including Vavilov, were remanded to prison and labor camps where, because of the harsh conditions, they perished (Pringle, 2008). Such treatment of eminent scientists had a chilling effect on the younger generation of geneticists. Few were

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motivated to go into the field and those who were already in it were hesitant to challenge Lysenko's views.

His influence expanded beyond the academe. His theories were implemented in the field, usually resulting in diminished and failed harvests (Joravsky, 1986). His views prevailed through the post war years until the 1960s when the Soviet Union deliberately began to undue Stalin's penchant for having science controlled by ideology.

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