

Eugenic Sterilization and a Qualified Nazi Analogy: The United States and Germany, 1930–1945

André N. Sofair, MD, MPH, and Lauris C. Kaldjian, MD
Annals of Internal Medicine, vol. 132, n° 4, 15 February 2000

In the United States and Germany before World War II, physicians participated in state-authorized eugenic sterilization programs in an attempt to prevent persons deemed to possess undesirable heritable characteristics from propagating. A comparison of U.S. and German histories reveals similarities that argue against easy dismissal of a Nazi analogy. On the basis of a review of editorials in *New England Journal of Medicine* and *Journal of the American Medical Association* from 1930 to 1945 it is difficult to accept the suggestion that the alliance between the medical profession and the eugenics movement in the United States was short-lived. Comparison of the histories of the eugenic sterilization campaigns in the United States and Nazi Germany reveals important similarities of motivation, intent, and strategy and differences that explain why support for eugenic sterilization in the United States gradually weakened. The eugenics movement in Germany was influenced by economic crisis, radical nationalism, Hitler's totalitarianism, and the medical profession's willing participation and attraction to Nazism for financial and ideological reasons. In the United States, a combination of public unease, Roman Catholic opposition, federal democracy, judicial review, and critical scrutiny by the medical profession reversed the momentum of the eugenics movement and led to the conclusion that eugenic sterilization should be voluntary.

Ann Intern Med. 2000;132:312-319.

For author affiliations and current addresses, see end of text.

During the 19th century, scientists investigated the acquisition of biological and behavioral traits. British biologist Francis Galton, who first made the “nature–nurture” distinction, studied the “comparative worth” of different races in 1883, using the term *eugenics* to describe the process of strengthening the human race through selective breeding (1, 2). Some 30 years earlier, French count Joseph Arthur de Gobineau had described race as the driving force of human history, arguing that there were several pure racial archetypes and attributing superior intelligence to the “Aryan” archetype (3).

In *On the Origin of Species by Means of Natural Selection* (1859), Charles Darwin outlined a biological theory about how new species are formed and existing ones become extinct (4). After its publication, many anthropologists and scientists sought to apply this theory to humans. Known as social Darwinists, they explained human society in terms of

natural selection (5, 6) and were presumably inspired by Darwin's candor:

[O]ur medical men exert their utmost skill to save the life of everyone to the last moment. . . . Thus the weak members of civilized societies propagate their kind. No one who has attended to the breeding of domestic animals will doubt that this must be highly injurious to the race of man (7).

Simultaneously, the growing prestige of science during the 19th century facilitated the reduction of social and moral problems to “scientific” terms. Moral decadence; crime; and such illnesses as tuberculosis, venereal diseases, and alcoholism were considered symptoms of hereditary degeneration. Eugenicists and social Darwinists believed that medical science could engineer social progress (8).

The Eugenics Movement in Germany

Social Darwinism was introduced into the German scientific community at the end of the 19th century. Proponents of this theory contended that medical care had interrupted the natural struggle for existence by preserving the weak and that “defective” persons were reproducing faster than healthy ones (9, 10). Biologist Ernst Haeckel wrote that humans are not always bound to prolong life and proposed the establishment of a commission to determine which of the chronically ill should be put to death by poisoning (11). In 1915, psychiatry professor Alfred Hoche described the end of atomistic individualism and the transformation of the nation into a higher organism, the *Volk* (12, 13). This quasi-mystical image, later incorporated into Hitler's world view, portrayed society as an organism with its own health and identified human beings as functional or dysfunctional parts of a larger whole (14, 15).

The political, social, and economic turmoil that followed Germany's defeat in World War I radicalized many German professionals and created popular support for the idea of the *Volk* (15). After the war, eugenicists focused their concern on costly welfare programs, the care of injured veterans, the loss of valuable genetic stock through war, and the decline in birth rates among the elite (16, 17). In 1921,

the German Society for Race Hygiene advocated a eugenics program in which voluntary sterilization was favored (18).

Nazi Transformation of the Medical Profession

Soon after rising to power in 1933, Hitler asked the German medical profession to address the “race question” (19). He took control of its professional organizations, restructured the medical schools and the Public Health Department (purging them of non-Aryans), and centralized the insurance and payment systems (20). Many physicians were attracted to Nazi ideology, and the medical profession had one of the highest rates of party membership of any profession (21). By 1936, 31% of Berlin’s non-Jewish physicians had joined the Nazi party, and rates of party membership were similar elsewhere in Germany (22, 23).

Financial incentives encouraged physicians to support the Nazi government. From 1927 to 1932, physicians’ average annual income had fallen by 27%, and many were unemployed (24). The inability of the preceding Weimar government to address this problem was countered by Nazi promises to restore the lost status of physicians (25). By 1935, physicians’ average taxable income had increased by 25% (21). Physicians were also induced to join the Nazi party because a spotless Nazi record was required for a government-sponsored practice (26).

Academic appointments and salary support in German medical schools depended on loyalty to the Nazi party, and Nazis of dubious professional attainment were appointed as rectors and deans (27). Instruction in eugenics became compulsory for medical students, and by 1935, students were required to wear Nazi uniforms and undergo Nazi indoctrination. Nazi medical propaganda was also directed at practicing physicians (20).

The Nazi Eugenic Sterilization Program

Although eugenic thought was easily appropriated by Nazi ideology (28, 29), the early eugenics movement was disengaged from party politics. Existing German law did not support eugenic sterilization, and before 1933, physicians who performed sterilizations for other than therapeutic reasons were sporadically prosecuted (30, 31). In 1932, before the Nazis took power, discussions among the German medical associations, the Reich Minister of the Interior, and the Prussian Health Council addressed the urgent economic need for compulsory sterilization (32). Five months into their rule, the Nazis enacted a law allowing the involuntary sterilization of persons with diseases thought to be hereditary, including schizophrenia, epilepsy, alcoholism, manic depression, hereditary deafness or blindness, severe hereditary physical deformity,

Huntington chorea, and congenital feeble-mindedness (33). The diagnosis of “feeble-mindedness” was left largely to the discretion of the examiner (34). Although the law did not provide for sterilization on racial grounds, healthy Jews (35) and Gypsies (36) were nonetheless targeted.

Sterilization could be requested by physicians, guardians, or institutions and was authorized by hereditary health courts (29, 37). From 1933 to 1939, 360 000 to 375 000 persons were sterilized; of these operations, 37% were voluntary, 39% were involuntary (done against the person’s will), and 24% were nonvoluntary (consent was granted by a guardian for persons who could not choose or refuse sterilization) (38, 39).

Sustained resistance to the sterilization program by the medical profession was scarce and was largely organized by small groups of Marxist physicians (40). Although some physicians were moved by Hippocratic or religious principles to resist the program (41), others indiscriminately sought sterilization for some of their patients (21, 34, 42). The Roman Catholic church in Germany took a strong stand against the sterilization law. To avoid conflict, the Nazis decreed that Catholic judges would not be asked to preside over hereditary health courts, Catholic surgeons would not be required to perform sterilizations, and Catholic citizens deemed defective would be exempt from sterilization if they were institutionalized at the expense of family or church (43).

From Eugenic Sterilization to Involuntary Euthanasia

In 1920, Alfred Hoche and Karl Binding (a retired jurist and widely published legal scholar) published *Permitting the Destruction of Unworthy Life* as a solution to the economic burden of institutionalized mentally handicapped patients. “Unworthy life” referred to “those irretrievably lost through illness or injury” and the “incurably insane.” They dismissed the Hippocratic oath as a vestige of “ancient times,” insisting instead on the “standpoint of a higher civil morality” that considered the health of the state and abandoned the unconditional preservation of valueless lives (44).

The Nazi regime first discussed involuntary euthanasia in 1933 (45, 46). However, it was not until 1 September 1939 that Hitler ordered a program of involuntary “mercy killing” to commence with the start of World War II; he knew that the upheaval of war would diminish public resistance (47). Never sanctioned by law, this program was executed in relative secrecy by using such methods as starvation, injection of morphine, and asphyxiation by gassing (48). After strong opposition by Protestant and Catholic church leaders (49, 50), the program officially ended in 1941—after 70 253 persons had been

put to death—but it continued in a limited manner until the war's end (51). Karl Brandt, Hitler's personal physician and the supreme medical authority in the Third Reich, testified at the Nuremberg trials that the euthanasia program to eliminate disabled children was a natural outgrowth of the 1933 sterilization law (52).

The Eugenics Movement in the United States

The eugenics movement in the United States arose in the wake of three intersecting developments: a belief in scientific management and rational planning, the pressures of economic instability, and the arrival of the progressive era (53). Progressives believed that societies could “make progress” toward the attainment of cherished goals (54), and the science of eugenics promised to attack social ills at their core. Eugenacists argued that the birth of defective persons created too great a social burden and that the state had the prerogative to control procreation among persons likely to bear children who would be dependent on the public purse. Many advocates of eugenics in the United States were also motivated by racist fears that the survival of old-stock America was threatened by the influx of “lower races”; they strongly supported immigration restriction, especially from southern and eastern Europe (55–57).

Sterilization Laws in the United States

The history of state-sponsored sterilization in the United States began with legislation in Indiana in 1907. By 1926, 23 states had enacted sterilization laws, which were motivated mainly by eugenic and therapeutic concerns. Eighteen of these states mandated involuntary sterilization of certain mentally defective persons or certain kinds of criminals. In Oregon, Montana, and Idaho, laws provided for both voluntary and involuntary sterilization, and in Iowa, Nebraska, New Hampshire, Minnesota, and Maine, laws provided for voluntary sterilization alone. In all but one of these eight states with voluntary laws (Idaho), consent was not required from a patient if he or she was incapable of giving it; written consent from a relative or guardian was sufficient (58). Such “voluntary” laws would therefore be more aptly described as nonvoluntary. Most states confined compulsory sterilization to inmates of public mental institutions (58), in which the proportion of poor and minority residents was greater than that in the general population; for instance, inmates sterilized in Virginia and California were disproportionately black or foreign-born, respectively (59).

California and eight other states were responsible for most of the eugenic sterilizations performed under state laws. The cumulative number of sterilizations in these states by 1943 was 16 553 in California, 4472 in Virginia, 2706 in Kansas, 2388 in Michigan, 2111 in Minnesota, 1597 in Oregon, 1372 in Wisconsin, 1346 in North Carolina, and 1231 in Indiana, (60). By 1944, 30 states with sterilization laws had reported a total of more than 40 000 eugenic sterilizations; of those sterilized, 20 600 were reported as insane and 20 453 as feebleminded (61). In the pre-Nazi period, German eugenacists expressed admiration for U.S. leadership in instituting sterilization programs and communicated with their U.S. colleagues about strategies (62). Despite wanting scientific and public support and the history of the human rights abuses of Nazi Germany, state-sponsored sterilizations in the United States continued long after the war, totaling approximately 22 000 in 27 states between 1943 and 1963 (60).

Leon Whitney and the American Eugenics Society

Various eugenics associations were founded in the United States in the early decades of the 20th century, and efforts to establish a national organization culminated in the foundation of the American Eugenics Society in 1923 (63). In 1934, Leon Whitney, executive secretary of the American Eugenics Society, published *The Case for Sterilization*. He believed that it was the state's responsibility to weed out defective persons from society, just as a farmer would clear a field. He contended that the question of eugenics was purely scientific, not ethical, and believed that scientists would respect individual rights and make rational and fair decisions about who should be sterilized (64).

Although Whitney claimed that “defectives” bring shame to everything decent in life and caused social degradation that outweighed the financial loss they inflict, he acknowledged that much of the interest in sterilizing the unfit was financially motivated. He believed that economic independence and value to society were the criteria by which human worth should be judged (65). In response to the fear that sterilization would lead to euthanasia, Whitney replied that the push for compulsory insurance and protests against war and the death penalty argued otherwise. “A great many indications show that as social consciousness increases, respect for human life grows with it” (66).

Whitney was grateful for the heightened interest in eugenic sterilization in America that was spawned by the German sterilization law, and although he held “no brief for Herr Hitler,” he expressed admiration for Germany's systematic efforts (67). “While we were pussy-footing around, reluctant to admit even that insanity of certain sorts runs in families,

the Germans were calling a spade a spade . . . by this action Germany is going to make herself a stronger nation” (68). Whitney’s enthusiasm for the Nazi sterilization law was generally shared by advocates of eugenics in the United States (69).

Judicial Review and Repeal

Most of the compulsory laws enacted in the United States were tested in the courts, and many were found to be unconstitutional and were subsequently abandoned or revised (70, 71). But other court decisions upheld the right of a state to control a person’s right to procreate when adequate hereditary evidence showed that procreation threatened the welfare of society (72). Such decisions followed comfortably in the wake of the landmark U.S. Supreme Court case of *Buck v. Bell* (1926). The case involved the intended compulsory sterilization of Carrie Buck, a “feebleminded” inmate of a state institution in Virginia, whose mother and daughter were also allegedly “feebleminded.” Writing for the eight-man majority, Justice Oliver Wendell Holmes proclaimed that

We have seen more than once that the public welfare may call upon the best citizens for their lives. It would be strange if it could not call upon those who already sap the strength of the state for these lesser sacrifices, often not felt to be such by those concerned, in order to prevent our being swamped with incompetence. It is better for all the world, if instead of waiting to execute degenerate offspring for crime, or to let them starve for their imbecility, society can prevent those who are manifestly unfit from continuing their kind. The principle that sustains compulsory vaccination is broad enough to cover cutting the Fallopian tubes. . . . Three generations of imbeciles are enough (73).

Geneticists: Pursuit of Science or Social Policy?

Given our current understanding of the importance of individual autonomy and our appreciation of the genetic and environmental complexity underlying such characteristics as intelligence, it is easy to dismiss compulsory eugenic sterilization as a moral and scientific failure. Before concluding that science was either ignored or innocently mistaken, we should query the degree to which prominent geneticists understood the futility of eugenic sterilization as a means to substantially improve the genetic composition of society.

Paul and Spencer (74) maintain that most leading geneticists persisted in their support of eugenic sterilization laws despite the implications of the Hardy–Weinberg principle: If a genetic trait is rare and recessive, most abnormal genes will persist within a population of phenotypically normal carriers (according to the proportions in the equation $p^2 + 2pq + q^2 = 1$) who could not be targeted by a selective sterilization program. Between 1920 and 1940, nearly all geneticists presumed that “mental

defectives” should not be allowed to breed, and they discussed the implications of the Hardy–Weinberg principle in an effort to expand the scope of eugenics rather than demonstrate its futility, claiming that any degree of success in a eugenic program would be valuable (74). Paul and Spencer concluded that the genetics community’s support for eugenic programs was the result not of a scientific error but of an overriding ideological commitment to a particular social agenda: halting the propagation of mental defectives to eliminate even a small proportion of defective genes. A few prominent geneticists spoke out against the erroneous scientific assumptions of the eugenics movement (75), and at least one, Lionel Penrose, opposed the thrust of the eugenics movement on both scientific and moral grounds, arguing that societies should be judged by how well they care for their mentally incompetent members (76).

Response of the Medical Profession in the United States

It has been argued that many physicians showed an early interest in eugenics as a social movement (not as a science) but that this interest waned in the 1920s (77). To test this suggestion, we reviewed nine U.S. medical journals for editorials on eugenic sterilization from 1930 to 1945. Although we were aware of the limitations of using editorials to represent the attitudes of the medical profession, we nevertheless assumed that statements by journal editors have some influence on the formation of opinion within the medical profession and may also reflect opinions already prevalent within the medical community. Our review revealed that during those years, three journals published no editorials at all (*American Journal of Medicine*, *Archives of Internal Medicine*, and *American Journal of Psychiatry*); two published editorials, but none addressed eugenic sterilization (*Annals of Internal Medicine* and *Southern Medical Journal*); one journal had one guest editorial on eugenic sterilization (*California and Western Medicine*) (78); one journal had a relevant anonymous editorial on mental health (*American Journal of Public Health*) (79); and two journals, *New England Journal of Medicine* and *Journal of the American Medical Association (JAMA)*, together published a total of nine anonymous editorials on eugenic sterilization or the general problem of mental illness, all of which appeared between 1930 and 1936. Because *New England Journal of Medicine* and *JAMA* treated eugenic sterilization more extensively, we chose to focus on the editorials from those two journals. Between 1930 and 1936, *New England Journal of Medicine* was edited by Morris Fishbein and *JAMA* was led by managing editor Walter P. Bowers and a stable team of associate editors and

committee on publications. Our discussion of these editorials is preceded by a description of the seminal report by the American Neurological Association (1935), which seems to have been the only systematic professional evaluation of eugenic sterilization undertaken in the United States during this period.

The American Neurological Association's Report

The Committee of the American Neurological Association for the Investigation of Eugenical Sterilization noted that in states with compulsory sterilization laws, sterilizations were not being performed in proportion to the number of persons whose conditions would make them subject to those laws. This observation shed light “on the handicaps of the authorities in the carrying out of the law and, consequently, gives indirect knowledge of the public sentiment of the community” (80). The Committee therefore recommended that eugenic sterilization be entirely voluntary. This recommendation also stemmed from what was perhaps the Committee's most influential observation: Contrary to popular fears, mental disease in America was not increasing (81). Increased rates of hospitalization of the mentally infirm had merely given the impression that mental illness was on the rise. This conclusion had been anticipated by some observers as early as 1932: According to the editors of *American Journal of Public Health*, “authoritative opinion on the whole” attributed the increased number of mental patients under care “to the widespread increase in the provision of treatment facilities coincident with the advent of mental hygiene” (79).

Although the Committee recommended that any financial motivations for sterilization should be clearly stated (82), it did little to counter the popular opinion that mentally defective persons were a drain on economic resources and stated that the “alarmist attitude is not justified except from the standpoint of the expense of taking care of the mentally sick” (81). The authors also espoused a positive vision for the role of feeble-mindedness because it breeds “servile, useful people who do the dirty work of the race,” and they expressed an interest in guarding society's genetic diversity in order to preserve the potential for exceptional human accomplishment. Some of the most valuable members of society, such as Beethoven and Tolstoy, whose parents would have been sterilized under a compulsory eugenic campaign, are “worth more to [society] than the cost of maintenance of all state institutions put together” (83).

The Committee recognized that social Darwinism ran counter to the democratic emphasis on human rights, but it sympathized with the unease provoked by social policies that permitted “the sick, the weak,

and the unfortunate to survive and propagate” and noted “the pollution of the race which might be feared as a result” (84). Despite their own opposition to compulsory legislation, the Committee expressed respect for the German eugenic sterilization law of 1933, with its precision, scientific grounding, and procedural safeguards (82).

The Committee concluded that scientifically valid research in genetics was lacking. “It appears that most of the legislation which has been enacted so far is based more upon a desire to elevate the human race than upon proven facts.” Nevertheless, the Committee recommended five disease groups for which voluntary eugenic sterilization could be considered: Huntington chorea and other hereditary degenerative neurologic diseases, familial feeble-mindedness, schizophrenia, manic-depressive psychosis, and epilepsy (85).

New England Journal of Medicine

In 1931, the editors of *New England Journal of Medicine* decried the financial and public health dangers posed by the mentally defective classes. The cost of caring for the insane was burdensome, and although society was obliged to restore mental health when possible, it currently needed “to protect itself from actual and impending dangers.” Skeptical of the likelihood that sterilization of the unfit potential parent would ever be used frequently, the editors called for research into the prevention of childhood mental disease in order to “bring dividends to the nation in greater efficiency, less crime, and fewer commitments to hospitals for the insane” (86).

By 1933, the editors believed that feeble-mindedness was probably inherited as a Mendelian recessive trait and were convinced that it was increasing at a dangerous rate.

The burden on society resulting from this increase in feeble-mindedness is tremendous. For one thing, persons with subnormal intelligence are always potential criminals. . . . The financial loss to the country is appalling. Including both the direct cost of supporting these sufferers from mental disease and the loss of productive capacity due to their incompetence . . . the annual total cost of mental disease for the United States [is] around three-quarters of a billion dollars. . . . We should . . . recognize this danger that threatens to replace our population with a race of feeble-minded; we must study its causes and the sources from which it springs. If we wait too long, this viper that we have nourished may prove our undoing (87).

In 1934, in response to Germany's compulsory sterilization law, the editors wrote that “Germany is perhaps the most progressive nation in restricting fecundity among the unfit.” They argued that “the individual must give way before the greater good.” The editors believed that Americans were not ready

to adopt the German plan and would resist compulsory sterilization. "Until public sentiment can be molded to look at the matter in a scientific spirit, it will be necessary to employ moral suasion in getting the largest possible number of assents to advice for the application of this treatment" (88).

In 1935, however, the editors began to retreat from their alarmist reflections and discussed the American Neurological Association's report, noting in particular the conclusion that the prevalence of mental disease was not in fact increasing and that very few mental diseases were clearly or solely hereditary in origin (89). The last editorial in *New England Journal of Medicine* between 1930 and 1945 on this subject was written in 1936 and referred again to the recommendations of the American Neurological Association. The editors maintained that until a deeper scientific understanding of mental disorders was achieved, "laws to prevent propagation by sterilization are unwise" and sterilization should certainly not be mandatory. This acknowledgment did not keep the editors from lamenting the economic costs and criminal associations of mental illness (90).

Journal of the American Medical Association

As early as 1930, the editors of *JAMA* called attention to the public health problems posed by the mentally ill. They believed that "the problems of mental disorders and mental defectiveness and the subject of mental hygiene constitute one of the most serious situations with which scientific medicine is at this time concerned" (91). But it was not until 1934 that the editors of *JAMA* directly addressed the question of eugenic sterilization, by comparing policies in Germany and the United States.

In Germany, mass sterilization is presumably being carried out. A more gradual evolution of the practice and principles has occurred in this country. Judging from the uncertain biologic foundation on which human sterilization rests, the latter would seem a less dangerous procedure. While recognizing the possible potential value of sterilization, the medical profession can perhaps serve its purpose best by retaining a scientific detachment in assessing the biologic and social results of the programs now in force (92).

A week later, another editorial focused on the economic and social costs associated with institutionalization of social enemies and mental incompetents. This discussion canvassed the controversy surrounding theories of nature and nurture in the development of mental illness and cited the contention that a successful eugenic campaign would make it necessary to "sterilize heterozygous individuals who are latent carriers of mental ailments." Despite this acknowledgment, the editorial ended with a neutral stance toward the two putative options available to the medical community:

If it becomes possible to gauge the laws of human inheritance with mathematical certainty, either human sterilization or "positive eugenics" . . . would seem desirable. If, on the other hand, without waiting for more definite information of inherited transmission, mass sterilization of defectives is carried out, with subsequent definite decrease in the number of defectives, its value also would be proved (93).

The last editorial in *JAMA* between 1930 and 1945 on this subject appeared in 1935 and referred to Abraham Myerson's criticism of mandatory sterilization. (Myerson was the chairman of the American Neurological Association's Committee for the Investigation of Eugenic Sterilization and the author of independent critiques of eugenic sterilization [94]). The editorial supported sterilization of persons whose mental diseases were clearly heritable but cautioned that the "established genetic foundation must not be exceeded" (95). Although voluntary sterilization in certain cases was deemed "a rational procedure," compulsory sterilization was only indirectly criticized. As in *New England Journal of Medicine*, a chronological review of *JAMA* editorials reveals a retreat, in 1935, from an earlier openness to eugenic sterilization as a potential solution to the economic and criminal problems associated with mental illness.

If we assume that these editorials from *New England Journal of Medicine* and *JAMA* reflected and helped form some of the opinion of the medical profession between 1930 and 1936, it is difficult to accept the suggestion that a short-lived alliance between medicine and eugenics dissolved by 1921 because eugenicists "apparently appealed to physicians ineptly" and criticized them "for allowing the weak to survive" (77).

The United States and Nazi Germany: A Qualified Analogy

The histories of eugenic sterilization in the United States and Germany invite a comparison of the motivations that prompted these countries' eugenic policies. The suggestion that such a comparison is warranted may provoke the objection that the differences between the two countries' histories are so great that any similarities would be trivial. Some might argue that to focus on similarities is to diminish the seriousness of the atrocities unleashed by Nazi dictatorship. We do not intend any such diminution of the particular horrors inflicted by Nazism. However, to dismiss the comparison outright risks presuming that the motivation of every Nazi evil was unique to the Nazis and would imply that all of the motivations behind German policies were foreign to American history. Such a dismissal would seem to deny a common humanity.

We maintain that a qualified Nazi analogy emerges when the histories of eugenic sterilization in the United States and Germany from 1930 to 1945 are compared. Sources of inspiration common to both nations included the belief that scientific management could solve social problems by preventing the propagation of the “unfit”; a willingness to measure individual worth in economic terms to justify strategies to diminish the number, and therefore cost, of defective populations; the conviction that mental illness posed a serious enough social threat to justify compulsory eugenic sterilization at the cost of the individual human right to procreate; and the belief that certain “races” are superior to others. The goals of eugenic sterilization in the United States and Germany were similar in that they aimed for improved genetic composition of their citizenry and hoped to create a society in which every individual was economically useful and the fiscal burden of institutionalization, crime, and charity were decreased. Both countries established compulsory eugenic sterilization, Germany with totalitarian completeness and the United States according to the decisions of individual states.

Vital differences between the two countries’ histories make it clear that the existence of a partial analogy should not preclude a description of how pertinent disanalogies influenced dramatically divergent outcomes. Germany’s economic crisis after World War I and the radical nationalism that followed in its wake directly affected the development of the eugenics movement. Scientific values were subordinate to the priorities of the Nazi regime, and an idea of economic utility substantially replaced earlier scientific, ethical, and religious values. Hitler’s regime exercised significant control over the medical profession at every level. Having suffered economically under the Weimar government, the medical profession was attracted to the Nazi party for financial and ideological reasons and became more homogeneous as its “non-Aryan” members were purged. The willing participation of the medical profession and Hitler’s totalitarian authority led to a more aggressive policy of eugenic sterilization, and several authors have argued that there was a logical progression from compulsory sterilization to involuntary euthanasia (96–100).

By contrast, the U.S. medical profession was sensitive to public opinion about legislation and was able to question the assumptions and scientific claims of the eugenics movement. Scientific evidence was demanded, and there was an enhanced appreciation of the role of environment in the pathogenesis of mental illness. Critical reflection by the medical profession on the uncertainty of the scientific foundations of the eugenics movement

eventually led to the conclusion that eugenic sterilization should be voluntary.

In the United States, a combination of public unease, judicial review, and critical scrutiny by the medical profession reversed the momentum of the eugenics movement, especially after the American Neurological Association’s report in 1935. It should be noted that American clergy and lay members of the Roman Catholic church were often the most important opponents of legislative proposals for eugenic sterilization, especially after Pope Pius XI condemned eugenic sterilization in his 1930 encyclical *Casti Connubii (On Christian Marriage)* (101). The U.S. system of democratic government allowed eugenic practices to develop state by state in a gradual and public fashion, creating continuous opportunity for public debate, legal adjudication, and scientific evaluation. The contrasting histories between the eugenic programs in the United States and Germany between 1930 and 1945 testify to the strength and self-correcting potential of democracy.

From Yale University, New Haven, Connecticut.

Acknowledgments: The authors thank Professors Garland E. Allen, Margaret A. Farley, Robert J. Levine, Robert N. Proctor, Asghar Rastegar, and Piero Rinaldo for critical review of the manuscript at various stages; the anonymous reviewers for detailed and constructive comments; Heather E. Kaldjian, LLB, for research assistance; and Mary Sofair for assistance in preparing the manuscript.

Grant Support: By a Fellowship for Research on Medical Ethics and the Holocaust granted by the Center for Advanced Holocaust Studies, the scholarly division of the United States Holocaust Memorial Museum, with funds provided by the Merck Company Foundation.

Requests for Single Reprints: André N. Sofair, MD, MPH, Yale Primary Care Internal Medicine Residency Program, Department of Medicine, Waterbury Hospital, Sixth Floor, 64 Robbins Street, Waterbury, CT, 06721.

Requests To Purchase Bulk Reprints (minimum, 100 copies): Barbara Hudson, Reprints Coordinator; phone, 215-351-2657; e-mail, bhudson@mail.acponline.org.

Current Author Addresses: Dr. Sofair: Yale Primary Care Internal Medicine Residency Program, Department of Medicine, Waterbury Hospital, Sixth Floor, 64 Robbins Street, Waterbury, CT 06721.

Dr. Kaldjian: Yale Primary Care Internal Medicine Residency Program, St. Mary’s Hospital, Department of Medicine, 56 Franklin Street, Waterbury, CT 06706.

References

1. Sir Francis Galton (1822-1911): statistician of eugenics [Editorial]. *JAMA*. 1965;194:666-7.
2. Eugenics: Galton’s definition. *Eugenical News*. 1931;16:214.
3. Weindling P. Health, Race, and German Politics between National Unification and Nazism, 1870-1945. Cambridge, UK: Cambridge Univ Pr; 1989:51.
4. Darwin C. On the Origin of Species by Means of Natural Selection, or, The Preservation of Favoured Races in the Struggle for Life. London: J Murray; 1859.
5. Hofstadter R. Social Darwinism in American Thought, 1860-1915. Philadelphia: Univ of Pennsylvania Pr; 1945:68-85.
6. Hawkins M. Social Darwinism in European and American Thought, 1860-1945: Nature as Model and Nature as Threat. Cambridge, UK: Cambridge Univ Pr; 1997:3-8.

7. **Darwin C.** *The Descent of Man and Selection in Relation to Sex.* Chicago: Rand McNally; 1874:130.
8. **Holder T.** Eugenics. *Eugen Rev.* 1936;27:277-83.
9. **Frick W.** German population and race politics. *Eugenical News.* 1934;19:33-8.
10. **Von Hoffman G.** Eugenics in Germany. *J Hered.* 1914;5:435-6.
11. **Haeckel E.** *The Wonders of Life.* London: Watts; 1904:100-24.
12. **Weindling P.** *Health, Race, and German Politics between National Unification and Nazism, 1870-1945.* Cambridge, UK: Cambridge Univ Pr; 1989:394-6.
13. **Keeler C.** "National" eugenics as an element of race-national religion. *J Hered.* 1938;29:71-2.
14. **Tietze F.** Eugenic measures in the Third Reich. *Eugen Rev.* 1939;31:105-7.
15. **Staub E.** *The Roots of Evil: The Origins of Genocide and Other Violence.* Cambridge, UK: Cambridge Univ Pr; 1989:99-122.
16. **Tietze C.** Population figures from Germany. *Eugen Rev.* 1926;18:250-3.
17. **Lenz F.** Eugenics in Germany. *J Hered.* 1924;15:223-31.
18. **Popenoe P.** Eugenics in Germany. *J Hered.* 1922;13:382-4.
19. **Proctor R.** *Racial Hygiene: Medicine under the Nazis.* Cambridge, MA: Harvard Univ Pr; 1988:64.
20. **Bloch H.** The Berlin correspondence in the JAMA during the Hitler regime. *Bull Hist Med.* 1973;47:297-305.
21. **Hanauske-Abel HM.** Not a slippery slope or sudden subversion: German medicine and National Socialism in 1933. *BMJ.* 1996;313:1453-63.
22. **Proctor R.** *Racial Hygiene: Medicine under the Nazis.* Cambridge, MA: Harvard Univ Pr; 1988:68-9.
23. **Kater M.** *Doctors under Hitler.* Chapel Hill, NC: Univ of North Carolina Pr; 1989:58.
24. **Gallagher HG.** *By Trust Betrayed: Patients, Physicians, and the License to Kill in the Third Reich.* Arlington, VA: Vandamere Pr; 1995:149.
25. **Proctor R.** *Racial Hygiene: Medicine under the Nazis.* Cambridge, MA: Harvard Univ Pr; 1988:160, 288.
26. **Kater M.** *Doctors under Hitler.* Chapel Hill, NC: Univ North Carolina Pr; 1989:85.
27. **Kater M.** *Doctors under Hitler.* Chapel Hill, NC: Univ North Carolina Pr; 1989:131-5.
28. **Weindling P.** *Health, Race, and German Politics between National Unification and Nazism, 1870-1945.* Cambridge, UK: Cambridge Univ Pr; 1989:10.
29. **Barondess JA.** Care of the medical ethos: reflections on social Darwinism, racial hygiene, and the Holocaust. *Ann Intern Med.* 1998;129:891-8.
30. **Foreign Letters (Berlin).** Is sterilization an injury in the legal sense? *JAMA.* 1932;99:774-5.
31. **Popenoe P.** Anthropology and eugenics: a review of some German publications. *J Hered.* 1931;22:277-80.
32. **Weindling P.** *Health, Race, and German Politics between National Unification and Nazism, 1870-1945.* Cambridge, UK: Cambridge Univ Pr; 1989:457.
33. **Popenoe P.** The German sterilization law. *J Hered.* 1934;25:257-60.
34. **Slater E.** German eugenics in practice. *Eugen Rev.* 1936;27:285-95.
35. **Testimony of Victor Brack, U.S. Military Tribunal at Nuremberg, Transcript of the Proceedings in case 1:7507-33.**
36. **Friedlander H.** *The Origins of Nazi Genocide: From Euthanasia to the Final Solution.* Chapel Hill, NC: Univ of North Carolina Pr; 1995:254.
37. **Miscellany.** Germany will sterilize the unfit. *N Engl J Med.* 1933;209:309.
38. **Weindling P.** *Health, Race, and German Politics between National Unification and Nazism, 1870-1945.* Cambridge, UK: Cambridge Univ Pr; 1989:533.
39. **Gallagher HG.** *By Trust Betrayed: Patients, Physicians, and the License to Kill in the Third Reich.* Arlington, VA: Vandamere Pr; 1995:23.
40. **Kater M.** *Doctors under Hitler.* Chapel Hill, NC: Univ of North Carolina Pr; 1989:75.
41. **Kater M.** *Doctors under Hitler.* Chapel Hill, NC: Univ North Carolina Pr; 1989:83.
42. *Internationales Arztlisches Bulletin.* 1935;2:17.
43. **Popenoe P.** The German sterilization law. *J Hered.* 1934;25:260.
44. **Binding K, Hoche A.** Permitting the destruction of unworthy life: its extent and form. *Issues Law Med.* 1992;8:231-65.
45. **Lifton RJ.** *The Nazi Doctors: Medical Killing and the Psychology of Genocide.* New York: Basic Books; 1986:47-8.
46. **Friedlander H.** *The Origins of Nazi Genocide: From Euthanasia to the Final Solution.* Chapel Hill, NC: Univ of North Carolina Pr; 1995:39.
47. *U.S. Nuremberg War Crimes Trial, 21 November 1946–20 August 1947.* National Archives Microfilm Publications; M887, Tape 17, Doc. 1630-PS.
48. **Proctor R.** *Racial Hygiene: Medicine under the Nazis.* Cambridge, MA: Harvard Univ Pr; 1988:187.
49. **Lifton RJ.** *The Nazi Doctors: Medical Killing and the Psychology of Genocide.* New York: Basic Books; 1986:90-5.
50. **Friedlander H.** *The Origins of Nazi Genocide: From Euthanasia to the Final Solution.* Chapel Hill, NC: Univ of North Carolina Pr; 1995:112-6.
51. **Proctor R.** *Racial Hygiene: Medicine under the Nazis.* Cambridge, MA: Harvard Univ Pr; 1988:191.
52. *Trials of War Criminals before the Nuremberg Military Tribunals under Control Council Law No. 10. Nuremberg, October 1946–April 1947.* Washington, DC: U.S. Government Printing Office; 1:893-5.
53. **Allen GE.** Eugenics and American social history, 1880-1950. *Genome.* 1989;31:885-9.
54. **Pickens DK.** *Eugenics and the Progressives.* Nashville, TN: Vanderbilt Univ Pr; 1968.
55. **Haller MH.** *Eugenics: Hereditary Attitudes in American Thought.* New Brunswick, NJ: Rutgers Univ Pr; 1963:144-59.
56. **Paul DB.** *Controlling Human Heredity, 1865 to the Present.* Atlantic Highlands, NJ: Humanities Pr; 1995:100-5.
57. **Kühl S.** *The Nazi Connection: Eugenics, American Racism, and German National Socialism.* New York: Oxford Univ Pr; 1994:70-84.
58. **Laughlin HH.** *Eugenical Sterilization: 1926. Historical, Legal, and Statistical Review of Eugenical Sterilization in the United States.* New Haven, CT: American Eugenics Soc; 1926:18-50.
59. **Keves DJ.** *In the Name of Eugenics: Genetics and the Uses of Human Heredity.* Berkeley, CA: Univ of California Pr; 1985:168.
60. **Robitscher J.** *Eugenical Sterilization.* Springfield, IL: Thomas; 1973:Appendix I.
61. *Current Comment. JAMA.* 1945;127:1131.
62. **Kühl S.** *The Nazi Connection: Eugenics, American Racism, and German National Socialism.* Oxford: Oxford Univ Pr; 1994:25, 37.
63. **Keves DJ.** *In the Name of Eugenics: Genetics and the Uses of Human Heredity.* Berkeley, CA: University of California Pr; 1985:59.
64. **Whitney LF.** *The Case for Sterilization.* New York: Frederick A. Stokes; 1934:193-204.
65. **Whitney LF.** *The Case for Sterilization.* New York: Frederick A. Stokes; 1934:239-40.
66. **Whitney LF.** *The Case for Sterilization.* New York: Frederick A. Stokes; 1934:218.
67. **Whitney LF.** *The Case for Sterilization.* New York: Frederick A. Stokes; 1934:8.
68. **Whitney LF.** *The Case for Sterilization.* New York: Frederick A. Stokes; 1934:135-8.
69. **Kühl S.** *The Nazi Connection: Eugenics, American Racism, and German National Socialism.* Oxford: Oxford Univ Pr; 1994:50-2.
70. *Medicolegal abstracts. JAMA.* 1930;94:132.
71. *Medicolegal abstracts. JAMA.* 1942;120:229.
72. *Medicolegal abstracts. JAMA.* 1932;98:1215.
73. *Buck v. Bell, 274 U.S. 207 (1926).*
74. **Paul DB, Spencer HG.** The hidden science of eugenics. *Nature.* 1995;374:302-4.
75. **Reilly PR.** *The Surgical Solution: A History of Involuntary Sterilization in the United States.* Baltimore: Johns Hopkins Univ Pr; 1991:111-5.
76. **Keves DJ.** *In the Name of Eugenics: Genetics and the Uses of Human Heredity.* Berkeley, CA: Univ of California Pr; 1985:155.
77. **Ludmerer KM.** *Genetics and American Society: A Historical Appraisal.* Baltimore, MD: Johns Hopkins Univ Pr; 1972:71.
78. **Rowe MJ.** Who should be sterilized? *California and Western Medicine.* 1934;40:429-30; 41:54-5.
79. *Editorial. Mental health in hard times. Am J Public Health.* 1932;22:634-7.
80. *Committee of the American Neurological Association for the Investigation of Eugenical Sterilization.* New York: Macmillan; 1936:7.
81. *Committee of the American Neurological Association for the Investigation of Eugenical Sterilization.* New York: Macmillan; 1936:56.
82. *Committee of the American Neurological Association for the Investigation of Eugenical Sterilization.* New York: Macmillan; 1936:21-2.
83. *Committee of the American Neurological Association for the Investigation of Eugenical Sterilization.* New York: Macmillan; 1936:171-2.
84. *Committee of the American Neurological Association for the Investigation of Eugenical Sterilization.* New York: Macmillan; 1936:2.
85. *Committee of the American Neurological Association for the Investigation of Eugenical Sterilization.* New York: Macmillan; 1936:177-9.
86. *Do we need further study of the defective classes? [Editorial] N Engl J Med.* 1931;204:731-2.
87. *Feeble-mindedness and the future [Editorial]. N Engl J Med.* 1933;208:852-3.
88. *Sterilization and its possible accomplishments [Editorial]. N Engl J Med.* 1934;211:379-80.
89. *Sterilization and the psychoses [Editorial]. N Engl J Med.* 1935;213:883-4.
90. *Sterilization of the unfit [Editorial]. N Engl J Med.* 1936;215:561.
91. *Mental hygiene [Editorial]. JAMA.* 1930;95:1181.
92. *Human sterilization in Germany and the United States [Editorial]. JAMA.* 1934;102:1502.
93. *The problem of human sterilization [Editorial]. JAMA.* 1934;102:1610.
94. **Myerson A.** A critique of proposed "ideal" sterilization legislation. *Arch Neurol Psychiatry.* 1935;33:453-66.
95. *Human sterilization [Editorial]. JAMA.* 1935;104:2001.
96. **Friedlander H.** *The Origins of Nazi Genocide: From Euthanasia to the Final Solution.* Chapel Hill, NC: Univ of North Carolina Pr; 1995:21.
97. **Weindling P.** *Health, Race, and German Politics between National Unification and Nazism, 1870-1945.* Cambridge, UK: Cambridge Univ Pr; 1989:546-51.
98. **Gallagher HG.** *By Trust Betrayed: Patients, Physicians, and the License to Kill in the Third Reich.* Arlington, VA: Vandamere Pr; 1995:94.
99. **Alexander L.** *Medical science under dictatorship. N Engl J Med.* 1949;241:39-47.
100. **Proctor R.** *Racial Hygiene: Medicine under the Nazis.* Cambridge, MA: Harvard Univ Pr; 1988:221.
101. **Reilly PR.** *The Surgical Solution: A History of Involuntary Sterilization in the United States.* Baltimore: Johns Hopkins Univ Pr; 1991:118-22.