

Eugenics at Dartmouth College: John Hiram Gerould and Human Heredity

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Those who practice science, though they often portray themselves as triumphantly marching toward natural truth, can nevertheless be plagued by error and misappropriation. In few cases have scientists gone awry more terribly than in the case of eugenics, the study of applied human heredity, which came to dominate governmental and social consideration in the decades after 1900 (1). Eugenics was an international movement, present in Germany, the United Kingdom, and particularly in the United States (1). In America, the movement drew from disparate backgrounds including churches, government agencies, and, in no small part, academics (1). Among those professors devoted to eugenic theory and practice was Dartmouth biology professor John Hiram Gerould.

Gerould became interested in eugenics during his graduate training and was close friends with some of the major figures in American eugenics. He earned a bachelor's degree from Dartmouth in 1890 and received his Ph.D. from Harvard five years later (2). While at Harvard, he became friends with several professors, including Charles Davenport, who would later become the *de facto* dean of the American eugenics establishment. Years later, Gerould would recall Davenport as "dynamic, progressive, [and] broadminded" and add that his mentor "had a strong influence on his [Gerould's] habits of mind" (3). The connection between the two did not end when Gerould left Harvard; indeed, Gerould later sought grant money from the Davenport-led Eugenics Records Office, including \$50 in 1912 for "hybridizing experiments with *Papilio*" and, in 1924, \$100 for a project studying the "inheritance of coloration" in butterflies (4, 5). Though Davenport did grant Gerould's 1912 request, he could not approve the 1924 request due to lack of funds; however, he offered Gerould his assistance in securing the money, writing, "I should be glad to speak strongly for the grant" (4, 5). The relationship was clearly personal as well as professional. A friend and colleague, Professor Harold Klein, who had "just returned from Cold Spring Harbor," noted in a letter to Gerould that "[Dr. Davenport] sends you his kindest regards" and added "thanks again for your letter to Dr. Davenport which, I'm sure, was the key to my being treated so well" (6). Klein clearly knew of the nature of the friendship between Gerould and Davenport; further, Gerould actively worked to introduce young friends to his mentor.

After coming to Dartmouth, Gerould served in the Department of Biology from 1894 to 1938; during this time he appears to have been an exceptional professor

whose teaching was innovative. (2). He actively conducted research "centered upon problems of heredity, adaptation, and physiology in insects," particularly butterflies (2). His teaching was also innovative. It was Gerould who introduced the first genetics and eugenics courses at Dartmouth. In the 1916-1917 academic year, he taught Biology 4, a course whose description announced that it would "be of value to those concerned with the practical side of raising plants and animals, and to the larger circle interested in human heredity" (7). Gerould contributed to a larger trend in higher education; indeed, Dartmouth was one of many colleges offering undergraduate courses in eugenics. By the start of World War I "in 1914, 44 American colleges and universities offered courses in eugenics; by 1928, the number had increased to 376" (1). Furthermore, the Dartmouth professor's interest was no passing fancy; Gerould continued to offer eugenics courses; in the 1937-1938 course manual, a description declared that the course (the last section Gerould would teach before his retirement) would discuss "heredity and variation in plants, animals, and man" (8, 2).

In his teaching, Gerould never advocated a hard hereditarian or strict determinist view, but rather conceded that nurture, as well as nature, could play a role in improving humanity. While teaching one of his classes, he claimed: "The organism John Smith is not only what the line of his Smith ancestors plus their wives have made him, but also what physical exercise, food, [and] contact with his parents, his various teachers and the world have made him" (9). Education and training efforts could help humans to overcome, at least in part, poor genetic qualities; in another lecture, analogizing humanity to a garden, he observed, "Weeds, flowers, [and] vegetables have grown up together in [a] grand medley. Education and religion have fertilized and watered this garden. Organized charity has sought to keep alive its drooping flowers" (10). Gerould was remarkably unwilling to surrender to determinism; even criminals, or "undeveloped animal[s]," as Gerould denounced them, "can be trained, and should be trained" to live somewhat normally within society (10, emphasis in original). Though he did advocate the segregation of the mentally handicapped and feebleminded, Gerould also recommended education so that "they [could] be given good care and...special training adapted to their special needs" (11, emphasis in original). Gerould rejected genetic determinism in favor of a softer hereditarianism that still emphasized the value and effectiveness of training and charity. Genetics were not the sole factor determining

the outcome of a person's life; instead, nurture as well as nature played a role.

Nevertheless, Gerould maintained that heredity was the largest single factor in determining human fitness. As he observed in a lecture to his students, changes in the environment would "do little more than to help each generation to realize whatever possibilities are inborn" (10). Earlier, he had claimed: "Education and religion have helped to stimulate people to do their best within the limits of their inherited powers. They are the leaven that helps raise the loaf, but the leaven cannot make brown bread white, nor white brown" (10). In Gerould's mind, training and charity had done nothing "toward the permanent improvement of the human stock" (10, emphasis in original). The education and improvement he advocated could only minimally improve individuals, and would be little more than a temporary solution; one's genetics were the major determining factor of one's fitness.

Gerould sought to inculcate his students with an appreciation for their own genetic 'fitness'; he sought to imbue Dartmouth students with positive eugenic ideals on marriage and family. Indeed, he defined positive eugenics as "the holding of sane, scientific, wise ideals by young men and women approaching marriage" (10). This emphasis on good breeding was not shared by many major eugenicists; Charles Davenport's "concern with fostering the increase of the good stock was decidedly outweighed by his emphasis on...preventing proliferation of the bad" (12). Gerould grimly warned his students, "College graduates are not only failing to multiply as fast as the rest of the population, but are not maintaining the parental number" (13). Gerould also cautioned: "Since the man has far more freedom of choice than the woman, he has even more responsibility. He has no business to make an unfit mating" (10, emphasis in original). He was deeply concerned that men chose wives on "instinct or sentiment alone," and often complained,

"too often the man thinks more of: can she cook, or has she a bank account than 'can she bring five children into the world and give them proper early training?'" (10). If his students chose wisely, Gerould presaged a time when "a nobler generation...[would] succeed the last, with more great leaders" (10, emphasis in original).

Gerould's emphasis on positive eugenics extended beyond simple advice to his students. He advocated a system of "differential taxes" to offset "the costs of maintaining and properly educating children," a system that would extend benefits past the age of eighteen, to benefit children reared in "families of educated people" who were "likely to be in college or university" (13, emphasis in original). He also took a strong anti-war stance, believing that "wars...lead finally to the degeneration of the race" (10). One could already see the effects of war, Gerould claimed: "By [the time of] our Civil War much of the very best stock of the nation was wiped out of existence, depriving the nation of no one knows how many thousands of possible descendents



Gerould as a Dartmouth College alumnus, circa 1890.
Image Courtesy of Dartmouth College Library, item located in Rauner Special Collections Library - Gerould Alumni File, 1890

of the best type" (10). This was a widely held sentiment among eugenicists: most "denounced it [war] on the grounds that modern warfare sacrificed the healthiest and bravest men while sparing the physically and mentally unfit" (1).

Rather uniquely among eugenicists, Gerould approved of birth control; he proposed (radically, given the time) that the law preventing the sending of birth control information through the mail should not "be repealed but...amended so that a competent authorized board of experts...may send through the mails simple sound advice on this subject based on scientific knowledge" (13, emphasis in original). Gerould was concerned about the "danger of partial or permanent sterilization of the [female] by the use of fluids containing corrosive sublimate," rendering fit women unable to bear eugenically superior children (13). Again, in his support

of this positive eugenic measure, Gerould placed himself outside of the eugenic mainstream, which “warned that the birthrates of college-educated women... would decline still further if birth control was easily available” (1). In his support of sound marital choice, advocacy for changes in taxation, opposition to war, and educational approach to preventing accidental sterilization, Gerould constructed a complex, nuanced platform that sometimes allied him with the eugenics establishment and at other times made him a maverick outsider.

Gerould did not solely focus on positive eugenic measures, however; rather, he also approved of several negative eugenic policies, such as forced sterilization and segregation of those deemed feeble-minded. The unfit, Gerould claimed, were those exhibiting “epilepsy, feeble-mindedness, insanity, extreme nervousness, migraine, alcoholism, sexual immorality, and lack of moral sense” (11). Such negative eugenic practices were designed to prevent the unfit from becoming “a burden to the better classes” (10).

As part of this negative eugenic regimen, Gerould strongly approved of the segregation of those deemed unfit. Indeed, in his mind, modern techniques of isolation were insufficient; Gerould decried that “in most states the dangerous practice is followed of allowing them [the unfit] to serve as household servants or factory workers,” which could conceivably provide an avenue to mating (11). He believed that European segregation efforts were more promising, mentioning the case of the “cretins of Aosta in Northern Italy” who, after twenty years, “were nearly all gone” due to sex segregation (14). More effort was needed to mimic the Italian success, Gerould claimed: “the capacity of... state institutions must be doubled” (10). Segregation, he concluded, was “very important” in the effort to make the gene pool of American society more fit (11).

In addition, Gerould believed in the efficacy and importance of forced sterilization for the unfit. Speaking to his class about a forced sterilization bill that had recently been defeated in the New Hampshire legislature, he optimistically noted, “Another [similar bill] has been drafted for the next legislature” (10). Referencing the studies of another scientist, Gerould added that such sterilization procedures resulted in “no physical or mental disturbance; on [the] contrary, [a] ‘more sunny disposition, brighter...intellect’” (10). In his statements supporting fellow sterilization-minded eugenicists, Gerould made clear his backing of mandatory sterilization efforts.

Gerould also advocated other, more peripheral negative eugenic measures. He, like many other eugenicists of his day, advocated far stricter “control of immigration,” although he was not as outspoken on this point as others, especially Charles Davenport (10, 12). Gerould was particularly concerned that “we know nothing about the

pedigree of these people who are admitted” and argued that the “U.S. should send men to the regions whence the immigrants come, meet them in their homes and inquire into their family histories before giving them permission to go to America” (10). Furthermore, he supported “stricter marriage laws,” a point he often made in his lectures (10).

Long-time Dartmouth biology professor John Hiram Gerould was widely active in eugenics during the first decades of the twentieth century. In addition to his involvement in the American eugenics establishment represented by Charles Davenport, Gerould also publicly advocated for both positive and negative eugenic measures in his position as a professor. In the sphere of positive eugenics, Gerould was a strong supporter of differential taxation, sound marital guidance, and the anti-war movement. However, in his support for a wide range of policies, from forced segregation and sterilization to immigration control and marriage requirements, one can see the breadth of the negative eugenic regimen that Gerould espoused. Through his vociferous support for a wide array of eugenic measures, we can see the dangers of science misapplied to matters of policy and society.

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