

Evangelizing Eugenics: A Brief Historiography of Popular and Formal American Eugenics Education (1908-1948)

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This article examines the history of the American Eugenics movement's penetration into the formal and popular educational milieu during the first half of the 20th Century, and includes a review of some recent scholarly research on eugenic themes in education and popular culture.

Apologists have dismissed the American Eugenics movement as a shortlived, racist, reactionary, and pseudoscientific aberration that was already dying long before the collapse of the Third Reich. Many official histories of biology and various social science disciplines including education were sanitized to expunge or trivialize the involvement of a host of important prophets, disciples, and evangelists in the eugenics movement. It was also common to divorce the research and statistical methods developed in the service of eugenics from their inspiration and original application to Galton's secular religion of human betterment.

In the last few decades, however, a new generation of scholars began to re-examine and illuminate the breadth and depth of the eugenics movement: its devotees and devotees' actions and influence on their professions or academic disciplines and on society. These scholars also looked into how eugenics penetrated educational thought, curriculum, courses, and texts; thereby, revealing a panoply of overlapping interests, academic programs, organizations, and influential individuals that fatefully intersected and synergistically recombined into a powerful social movement throughout the first half of the 1900s.

Cet article examine l'histoire de l'invasion des milieux formels et informels de l'éducation par l'eugénisme américain au cours de la première moitié du 20^e siècle. On y présente également une brève étude de la recherche récente sur des thèmes portant sur l'eugénisme dans l'éducation et la culture populaire.

Des apologistes ont écarté l'eugénisme américain en l'interprétant comme une aberration de courte durée, raciste, réactionnaire, pseudo-scientifique et qui était déjà moribonde bien avant l'écroulement du Troisième Reich. Plusieurs versions historiques officielles dans les domaines de la biologie et des sciences sociales, y compris l'éducation, ont été épurées de sorte à supprimer ou à banaliser l'implication d'une foule de prophètes, disciples et évangélistes importants dans le mouvement eugénique. Il était également courant de complètement séparer la recherche et les méthodes statistiques développées au service de l'eugénisme de leur inspiration et application originales puisées dans la religion séculaire de Galton visant l'amélioration de la condition humaine.

Au cours des dernières décennies toutefois, une nouvelle génération de chercheurs ont commencé à examiner et à éclaircir la profondeur et l'ampleur de l'eugénisme en étudiant ses dévots, leurs actions et l'influence de ceux-ci sur leurs professions, leurs domaines académiques

et la société. Ces chercheurs ont également étudié la pénétration par l'eugénisme de la pensée pédagogique, des programmes d'étude, des cours et des manuels, révélant ainsi une panoplie d'intérêts chevauchants, de programmes académiques, d'organismes et de personnages influents qui se sont recoupés de façon décisive et se sont recombinaés par synergie en un puissant mouvement social pendant toute la première moitié du 20e siècle.

"If "...wrote John Franklin Bobbitt in his short article, "Practical Eugenics" of 1909, in the hallowed pages of *The Pedogical Seminary*, "only children of sound, sane parentage should be born, then our most difficult problems of child-training would be solved, most of the evils that pursue humanity would be banished, and the race raised to higher altitudes in its journey toward the kingdom of the Over-man." (Bobbitt, 1909, p. 385)¹

The history of the eugenics movement - its scientific underpinnings and sociopolitical consequences - conjures dark images for many people in the fields of education, the biological, medical, and social sciences. State-sanctioned racism, forced segregation, coerced and compulsory sterilization, and the horrors of the Nazi-prescribed extermination of the physically disabled, mentally ill, and other social lepers whose brutally efficient elimination was also a dress rehearsal for the Holocaust, certainly deserve continued critique, exposure, and examination. However, there are other facets of eugenics that have escaped widespread study, publicity, and educational exposure. Various technologies, methodologies, research programs, and theoretical orientations that originated with or were inspired by eugenics have been widely adopted and extended, but their eugenic genesis has been forgotten or sanitized. Figure 1 shows an example of eugenically inspired educational technology and popular ideology that persisted beyond the eugenics movement.

Apologists dismissed eugenics as a short-lived, racist, reactionary, and pseudoscientific aberration that was gasping for breath in North America long before the collapse of the Third Reich. Many official histories of biology, and various social science disciplines (including education) have been whitewashed to sanitize or at least trivialize the involvement of a host of important prophets, disciples, and converts in the eugenics movement. Figure 2 shows a long list of the leaders and directors of the American Eugenics Society, c. 1935. Note the numerous educators who were centrally involved. It is also common today to divorce the research and statistical methods developed in the service of eugenics from their inspiration and application to the science of racial improvement.

In the last few decades, however, a new generation of scholars began to re-examine and illuminate the breadth and depth of the eugenics movement: its devotees and their actions and influence on their professions or academic disciplines and on society. These scholars also looked into how eugenics penetrated educational thought, curriculum, courses, and texts; thereby revealing a panoply of overlapping interests, academic programs, organizations, and influential individuals that intersected and recombined into a powerful social movement that thrived throughout the first half of the 20th century. Despite their obscured origins, remnants of the eugenics movement still survive.

Herrnstein and Murray's *The Bell Curve* (1994) served to reignite public and professional furor on the significance of eugenics in the *Zeitgeist* of the New Millennium. Even without the overt emphases on race, class, and gender discrimination, the biometric, psychometric, statistical, pedagogical, and curricular detritus of eugenics remains for willing researchers to uncover.

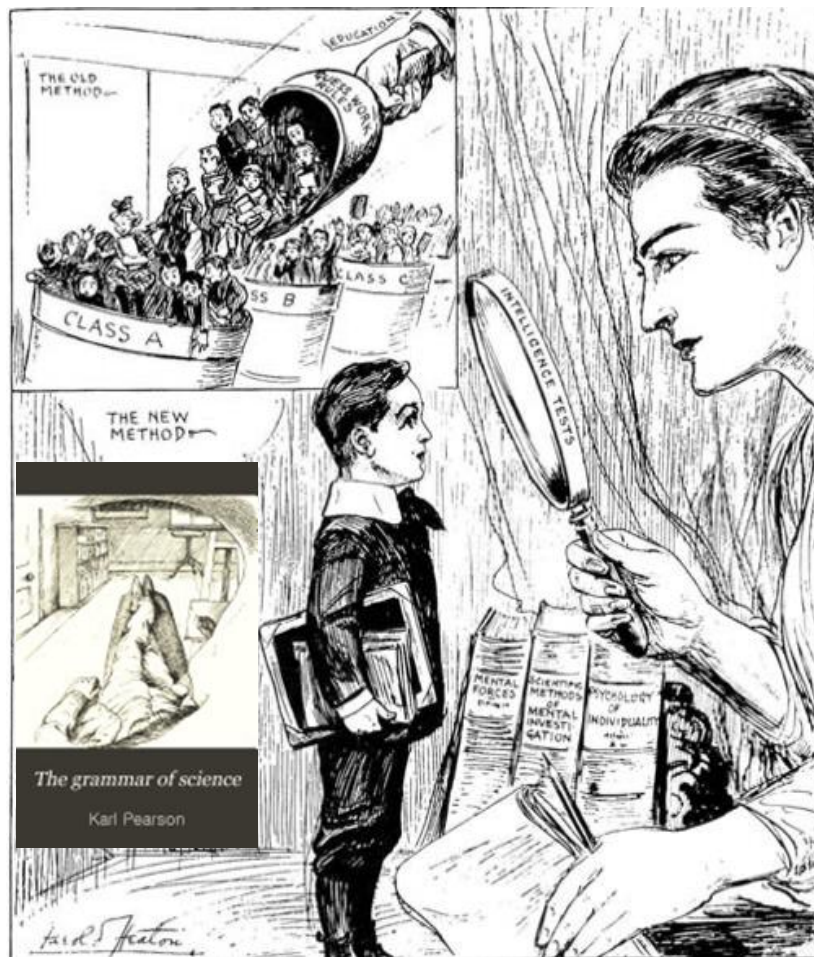


Figure 1. A cartoon illustrating the 'new method' of separating the eugenic wheat from the dysgenic chaff by the scientist/education practitioner of the 'progressive-era'. Several of the authors of the 'grammar of science' textbooks on Ms. Education's desk will be profiled in this chapter on the historiography of eugenics education.

I shall examine the inculcation and enculturation of eugenics in the curriculum and classrooms of American schools and colleges and in popular culture from the so-called *Progressive era*², for the period from 1908 to the aftermath of World War II, particularly the Nuremberg Trials of Nazi Germany³.

This article serves as a primer on the prime movers, the quintessential themes, and the cultural penetration of eugenics education in influential public forums, as well as the formal inclusion of eugenics in school and college curricula. It extends from American eugenics education's initial launch under the auspices of the American Breeders Association, through to the end of WWII, when mainstream American eugenics was gradually suppressed or rebranded with new euphemisms⁴. It includes a short introduction on some of the eugenics textbooks employed, the major themes explored, and a summary chart of eugenics education historiography after the conclusion.

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Figure 2. A list of the directors and the advisory council of the AES, c. 1935, from the frontispiece of *Tomorrow's Children*, a sort of catechism for eugenics. The list includes many icons of American science and education in the 1930s, including many whose works and careers are considered in the text of this article.



Figure 3. A photo of 'Deborah Kallikas' as a young woman, along with 'Henry the Cat' – named after her famous minder, Henry Goddard. Deborah was the "poster child" of eugenic segregation and a staple character in eugenics education lore and civic-biology texts. From the age of eight, she lived at the *Vineland Training School for Feeble-minded Boys and Girls* in New Jersey, until her death at age 89. See J. David Smith (1985), *Minds Made Feeble* for the tragic tale of her institutional life.

The history of eugenics continues to have important consequences for today's generation. The New Millennium has its own analogous biological and/or medical research programs, social policy and new legislation, and ongoing educational impacts arising from ongoing incarnations of genetic, biometric, and psychometric sciences and their related technologies. These current programs and agenda need to be informed by a clearer history of reliance on incomplete biological and social sciences and their applied technologies—before their potential use for eliminating perceived societal ills, oppressing the usual suspects, and inheriting the status quo by the next generation of the "Over-man"⁵. Figure 3 shows one of the best publicized targets of eugenic segregation, which became a staple vignette of eugenics education for decades.

In the first decades of the American Century, eugenicists needed to recruit a coterie of medical professionals, business, educational, and social leaders as well as the politicians and philanthropists who held the purse strings. They needed to "educate" the public and the progressive generations who would populate their brave new world. To this end, the American Eugenics Society (AES) formed over a dozen committees: some specialized in social problems such as immigration restriction, or crime and delinquency, while others preached eugenics to different sectors of society. Among these committees were the Popular Education Committee tasked with education of the public, and the Formal Education Committee charged with "incorporation of eugenics as an integral part of various appropriate courses throughout the school system, in the elementary grades through high school, as well as the encouragement of special courses in colleges and universities" (Evans, 1931, p. x).

we will assume for the time being Weismann's main conclusion to be correct. One of the chief features of his theory is the non-inheritance by the offspring of characteristics acquired by the parents in the course of life. Thus good or bad habits acquired by the father or mother in their lifetime are not inherited by their children. The effects of special training or of education on the parents have no direct influence on the child before birth. The parents are merely trustees who hand down their commingled stocks to their offspring. From a bad stock can come only bad offspring, and if a member of such a stock is, owing to special training and education, an exception to his family, his offspring will still be born with the old taint.² Now this conclusion of Weismann's—if it be valid, and all we can say at present is that the arguments in favour of it are remarkably strong—radically affects our judgment on the moral conduct of the individual, and on the duties of the state and society towards their degenerate members. No degenerate and feeble stock will ever be converted into healthy and sound stock by the accumulated effects of education, good laws, and

¹ His theory of the "continuity of the germ plasm" is in many respects open to question, but his conclusion as to acquired characteristics being uninherited stands on firmer ground. See Weismann, *Essays on Heredity and Kindred Biological Problems*, Oxford, 1889. A good criticism will be found in C. L. Morgan's *Animal Life and Intelligence*, chap. v.; a summary in W. P. Ball's *Are the Effects of Use and Disuse Inherited?* The reader should also consult P. Geddes and J. A. Thomson, *The Evolution of Sex*, and a long discussion in *Nature*, vols. xl. and xli. (*sub indice*, Weismann, *Heredity*).

² Class, poverty, localisation do much to approximately isolate stock, to aggregate the unfit even in modern civilisation. The mingling of good and bad stock due to dispersion is not to be commended, for it degenerates the good as much as it improves the bad. What we need is a check to the fertility of the inferior stocks, and this can only arise with new social habits and new conceptions of the social and the anti-social in conduct.

Figure 4. Karl Pearson in *The Grammar of Science* (1900, 26) on the merely temporary value of education, versus the permanent effects of heredity – an encapsulation of the prevailing progressive era hereditarian *Weltanschauung* endemic to most American eugenicists and many educators. Pearson's views may be passé, but his eugenically inspired techniques and grammar still persist and have an influential legacy.

Education was always somewhat problematic for eugenicists, particularly those of the hardline hereditarian school of thought. From the early writings of Francis Galton to the Great Depression, the value of education in determining success in life was always minimized in relation to hereditary endowment. Many, such as Galton's faithful paladin Karl Pearson, denied the possibility of education or social reforms overriding the effects of "bad" heredity. Pearson, in *The Grammar of Science* (1900, pp. 26-27), writes "No degenerate and feeble stock will ever be converted into healthy and sound stock by the accumulated effects of education, good laws, and sanitary surroundings"⁶. See Figure 4 for an expanded excerpt of Pearson's ideology. Paul Popenoe and Roswell Johnson, in the 1933 edition of *Applied Eugenics*, state "not more than 5% of the differences in intelligence of children (as measured by the Intelligence Quotient) are due to differences in their schooling" (p. 3)⁷. These authors attribute "75 - 80% to heredity" and declare that "home environment accounts for probably 17% of the differences in this study" (p. 3). Education was therefore seen as benefitting only those whose genetic make-up could reasonably profit from training and schooling. This lack of enthusiasm for general education did not extend to eugenics education, especially for women and men who would become the professionals, scientists, and leaders of the next generation of American technocrats and aristocrats. Eugenics education was clearly aimed at the upper strata of society where it could reformulate society along rationally eugenic sound lines or, as Johnson and Popenoe state in terms that resonate in the wake of the Occupy Movement, "something like 1% of the population of the country is as likely to produce a man of genius as is all the rest of the population put together – the other 99%" (1933, p. 14).

Eugenics Education for a Progressive Public

Wherever a significant eugenics movement arose, it was quickly realized that education of the general public and the next generation of citizens would be a vital component of any large scale success in a multigenerational endeavor. In Soviet Russia, the fledgling eugenics movement considered the educational forum as a method to spread the secular gospel of "Bolshevik Eugenics." Mark Adams highlights in "Russian Eugenics: 1900-1940":

Like discipline builders elsewhere, the founders of Soviet eugenics felt a tension between reformist zeal and academic and professional caution... As for education of the public, most eugenicists endorsed the publication of popular works, and the establishment of new courses in universities and medical schools, although teaching eugenics to women in secondary schools provoked considerable resistance. (1990, p. 172)

In America, Galton's eugenics seeds found more fertile political soil than the harsh Soviet steppes where the capricious whims of Stalin and his cronies could doom a budding eugenicist or human geneticist to extinction or frozen storage in Siberia (Adams, 1990, pp. 182-198)⁸. Eugenics exhibitions at state fairs, national events, and museums were staples throughout the interwar period. These exhibits introduced the burgeoning American middle class to the social perils that eugenics promised to ameliorate and to the potential of future progress. *Better Baby* and *Fitter Family* contests pointed the way upward (*positive eugenics*). The need for *negative eugenics* was bluntly illustrated by dire warnings of *race suicide* through the dysgenic action of *racial poisons* such as alcohol, tuberculosis, venereal diseases and feeble-mindedness, all leading

to racial degeneracy via neo-Lamarckian inheritance of acquired characteristics. Indeed, in America as in the Soviet Union where they later reached absurd heights, Lamarckian concepts were retained by several early eugenicists long after scientists had embraced the contrary theories of August Weismann and Gregor Mendel⁹.

Public exhibitions of eugenics in America followed a popular tradition established in 1915, when the Race Betterment Foundation, headed by John H. Kellogg of breakfast cereal fame, organized an elaborate display at San Francisco's Panama-Pacific International Exhibition that had millions of visitors. Other organizers included Stanford University chancellor David Starr Jordan and Harvard University president emeritus Charles W. Eliot. The "exhibit offered a brief for enacting eugenics-based legislation that would support sterilization of defectives and limit immigration to Northern Europeans" (Currell & Cogdell, 2006, p. 362). Parts of this exhibit were later used by eugenics experts such as Harry H. Laughlin, who testified to "educate" American congressmen on Capitol Hill before the passage of the Johnson-Reed Immigration Restriction Act of 1924. This Act limited hopeful migrants from non-Nordic countries to their pre-1890 levels, greatly favoring the eugenically approved stock from Anglo-Saxon nations. The law was not repealed until 1952 although some provisions persisted to 1965 (Engs, 2005, p. 126).

Eugenics displays sponsored by various American eugenics and social hygiene associations were staples at many public events, and were often held in conjunction with eugenics-related legislative hearings, votes, or public referenda. A striking example is provided in "The Nazi Eugenics Exhibit in the United States, 1934-43" in *Popular Eugenics: National Efficiency and American Mass Culture in the 1930s* (Currell & Cogdell, 2006, pp. 359-378). It includes provocative, well illustrated chapters on eugenics in popular culture (including movies, novels, art), a sensational court case of international press coverage, and the incorporation of eugenics into sex education for girls. In addition, there is a fascinating chapter devoted to a eugenics exhibit funded by the American Public Health Association and prepared by the Deutsches Hygiene Museum of Dresden c. 1933, shortly after the Nazi Party had gained control and passed its own compulsory sterilization law, which many American eugenicists applauded for its scope and authority¹⁰. Titled "Eugenics in the New Germany," it featured a number of pedigree charts for famous Germans, such as J.S. Bach, selected for their particular genius and showing how their offspring inherited their special talents and traits. In stark contrast are the dire economic and social imperatives for the efficient sterilization of the mentally unfit, habitual criminals, homosexuals, and other "sexual perverts" – all in state-of-the-art full-colour illuminated panels and 3-D models.

The exhibit arrived in California, which led all states in eugenic sterilization procedures, in the summer of 1934. The exhibit occupied 3000 square feet in the Pasadena Civic Auditorium and was heralded by newspaper and radio coverage. It toured several large cities for a number of months before moving to Oregon where the state legislature was considering expanding its own eugenic sterilization act to include the kind of compulsory provisions adopted in the Third Reich and in California. After additional stops, the display found a more permanent home at the Buffalo Museum of Science until, with the outbreak of war in Europe, it was moved to storage and finally destroyed in 1943 "when it had become a distinct liability for the museum" (Currell & Cogdell, 2006, p. 379). Figure 5 shows a 1920s American analogue of this display on public exhibition tours educating the public in the basics of eugenics.

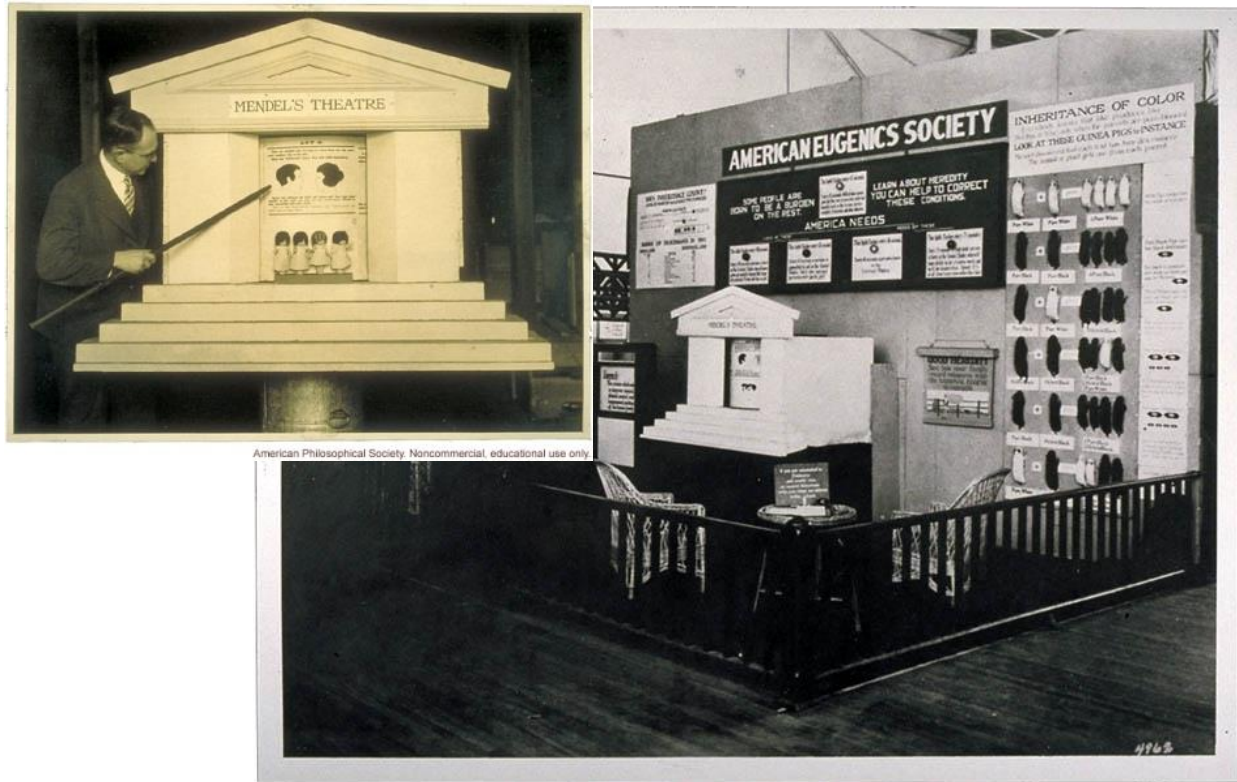


Figure 5. An example of an American Eugenics Society contribution to a display of popular eugenics at the 1926 Sesquicentennial Exposition in Philadelphia featuring “Mendel’s theater” (in inset being demonstrated by geneticist and educator Leon F. Whitney of the AES), guinea pig coat color on right, and “America Needs” at the top center. (See the enlarged top-center image below of this multimedia version of the AES’s *Grammar of [Eugenic] Science*.)



Public lectures and presentations to civic groups, political bodies, and professional associations were popular throughout the interwar period as were promotional pamphlets and books, newspaper and magazine articles, and even church sermons. The extent to which the eugenics movement generated a fervent quasi-religious following is illustrated through the attempts to capture the hearts and minds of churchgoers and their faithful shepherds. Figure 6 shows an example of the religious overtones in early popular American eugenics. In *Preaching Eugenics* (2004), Christine Rosen provides a vignette of the religious appeal of popular eugenics:

In 1926 hundreds of Osgood's fellow clerics, representing nearly every Protestant denomination, as well as several Reform rabbis, preached eugenics across the country... The preachers spoke vividly of the powerful force of heredity and urged their congregations to put the tenets of this new science to the test in their own communities. Their efforts were part of a "eugenics sermon contest" sponsored by the country's preeminent eugenics organization, the American Eugenics Society, but the impulse to link organized religion with eugenics was much broader than a single contest could capture. (p. 4)

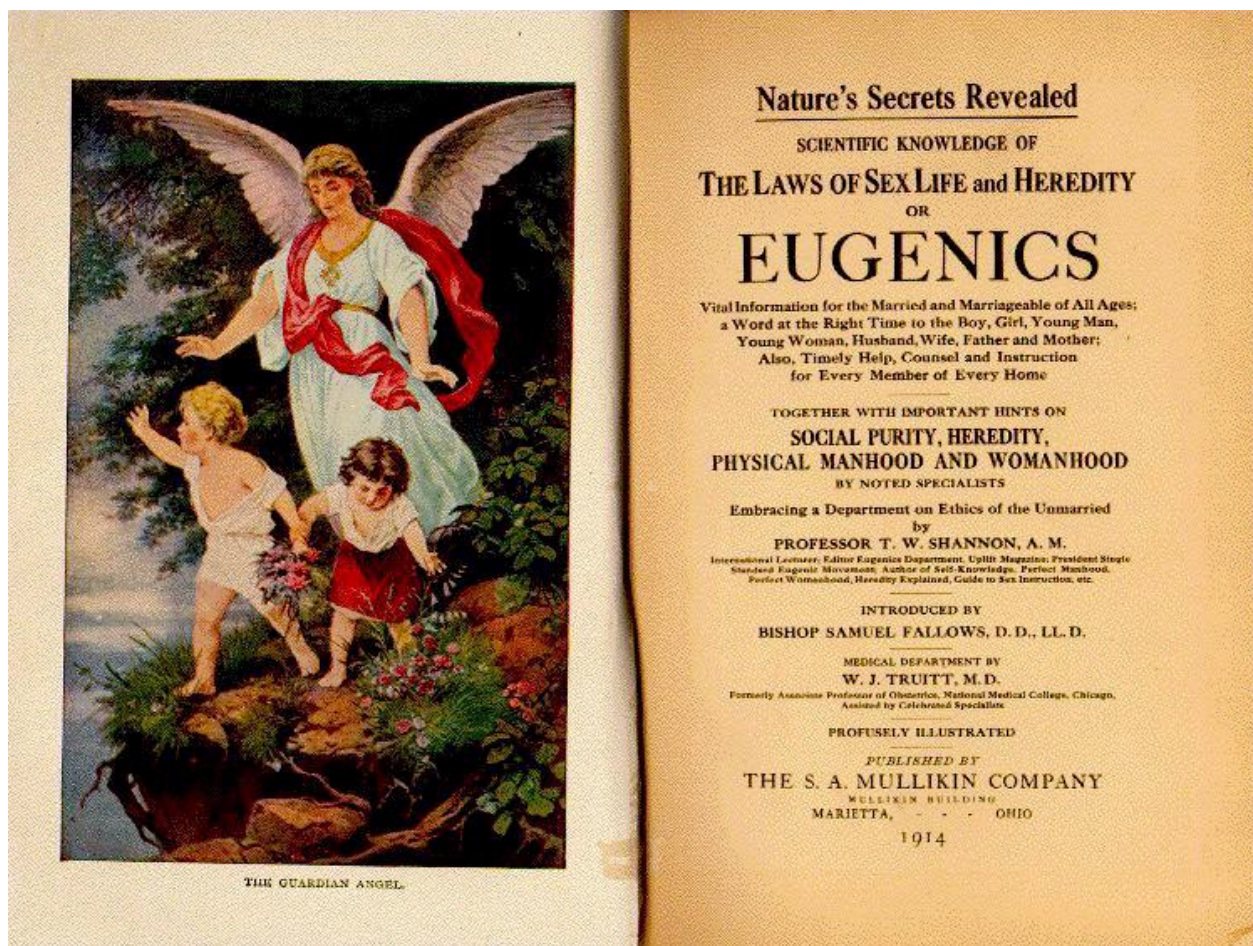


Figure 6. A fine illustration of the religious ardor embedded in popular progressive era eugenics education. Note the harmonious combination of professors, clerics and medical professionals.

This evangelical fervor was also extended to professional groups across America. A particularly relevant example is the eugenical crusade conducted by Dr. Helen Putnam and the National Education Association's Committee on Racial Well-Being, profiled by Steven Selden in William F. Pinar's *Contemporary Curriculum Discourses* (1988, pp. 50-65). Dr. Helen Putnam, a former president of the American Academy of Medicine and a pioneer in the field of public health, was especially distinguished for her efforts to reduce infant mortality. As chair of the Committee on Racial Well-Being established in 1916, she began presenting annual reports to the national conference of the NEA (Selden, 1988, p. 60). Her first report, "The New Ideal in Education: Better Parents of Better Children," reflected "an intriguing mix of pacifism, anti-capitalism, anti-individualism and biological determinism." Like her clerical brethren preaching to the pews, Putnam advocated tough love, guided by conservative religious dogma, for American society and education: "If humanity is to survive, individualism and nationalism must conform to the laws of racial well-being" (p. 62).

Interpreting the laws of racial well-being, the committee employed Charles Davenport and other influential eugenicists who served on an advisory committee and acted as judges for disbursing honoraria and scholarships for the study of special excellence. At the 1921 conference, Putnam implored participating educators to a higher calling: "It is as much the duty of educators to assure through educational procedures that individuals shall be well-born as that they are well-reared" (in Selden, 1988, p. 62). Figure 7 shows one widespread strategy for accomplishing this goal.

Eugenical Curricular and Educational Leaders

The history of eugenics in curriculum and its teaching in schools is gradually being rediscovered as a new generation of scholars reveals evidence that had been forgotten, suppressed, and hidden. One of the leaders in this field is Professor Steven Selden of the University of Maryland. He has written a comprehensive book and numerous journal articles on the incorporation of eugenics into curriculum, textbooks, and educational programs in America. Selden's book,

Figure 7. Appearing first at the 1908 Louisiana State Fair, 'Better Baby Contests' combined physical traits with crude intelligence measures. They became a staple of eugenic displays at state fairs and exhibitions around the country until well into the Depression years. Note the medical professionals garbed in the white robes of scientific authority.

Much like what would become standard for 'Fitter Family Competitions', measurements were made based on a standardized score card. This scientific approach brought a new style to the already popular baby contests that were more geared toward pageantry and beauty than physical health.



Inheriting Shame: The Story of Eugenics and Racism in America (1999), profiles the involvement of American educational leaders in the eugenics movement and their efforts to incorporate eugenics into curriculum and formal education programs.

Several leaders of the early American eugenics movement, such as John F. Bobbitt, G. Stanley Hall, and Edward L. Thorndike, had distinguished careers in the new field of curriculum theory; or were deans and presidents of major colleges and universities, such as Harvard's Charles W. Eliot and Stanford's David Starr Jordan. Eliot, Jordan, and Thorndike were prominent members of all three of America's premiere eugenics organizations: The Galton Society, The American Eugenics Society, and the Race Betterment Foundation (Selden, 1999).

J.F. Bobbitt, a famous progressive advocate of child- and curriculum-study including *The Curriculum* (1918), wrote an early American eugenics article with profound educational implications. In "Practical Eugenics" (1909; in G. Stanley Hall's educational journal, *Pedagogical Seminary*), Bobbitt implored the American public and their leaders to curb the "rampant immigration" of non-Anglo-Saxon Europeans and argued that "little could be done for the child of worm-eaten stock" (Selden, 1999, p. 41). Bobbitt dramatically warned that two sinister processes were at work in America. The first was the "drying up of the highest, purest tributaries to the stream of heredity" referring to the decreasing birthrate of the native Anglo-Saxon stock (Bobbitt, 1909, p. 388)¹¹. The second was the "rising flood in the muddy, undesirable streams" referring to the large differential in birthrates of the more recent influx of non-Anglo, non-Nordic immigrants from Southern and Eastern Europe as well as the slaves brought to America before the Civil War. Bobbitt also lamented the dysgenic effect of charities and social services for working against the laws of evolution and nature:

Where survival of the fittest had previously ensured that society's best would continue, we are now faced with civilization's retrogressive policies. Our schools and our charities supply crutches to the weak in mind and morals [and thus] corrupt the streams of heredity which all admit are sufficiently turbid. (Bobbitt, 1909, p. 387)

David Starr Jordan nurtured Leland Stanford Junior College into becoming one of America's largest and most prestigious private universities. He was also a prolific writer in the eugenics field, decrying the dysgenic effects of war, venereal diseases, and alcohol, and championing eugenic segregation and sterilization of the feebleminded, as well as immigration and marriage restriction laws (Engs, 2005). His books included *The Blood of the Nation* (1902) and *The Heredity of Richard Roe* (1911). Likewise, Edward Thorndike, a pillar at Columbia's Teachers' College, found time not only to serve on the advisory and editorial boards of these eugenic organizations, but also promoted their agenda in his more mainstream works including his magnum opus, *Human Learning* (1931). Steven Selden quotes from the book to open the chapter "Popularizing Eugenics" in *Inheriting Shame* (1999, p. 39):

We have much to learn from eugenics, but even now we know enough to urge us to provide the intellect of man with higher and purer sources than the muddy streams of the past. It is our duty to improve the original inborn ability of man to learn. There is no better way of improving civilization than by improving man's own nature.

The list of eugenically minded educationists also includes influential professors such as Stanford's Lewis M. Terman (co-developer of the Stanford-Binet I.Q. Test and the U.S. Army Alpha and Beta Tests) and administrators of juvenile detention facilities and "training schools

for the feeble-minded” such as Vineland’s Henry H. Goddard. Goddard and Terman were both students of G. Stanley Hall.

It was Goddard who coined the term “moron” to indicate a higher functioning category of the feeble-minded, especially worrisome to many eugenicists as “these people could otherwise pass for normal” (Kevles, 1995, pp. 77-79). It was their potential promise to conclusively detect the feeble-minded that led Goddard to experiment with and “Americanize” the Binet intelligence tests in 1908-1911. Goddard wrote many eugenical tracts, but it was his portrait of an extended family of “degenerates” and feeble-minded “paupers and ne’er-do-wells” that became a template for a virtual slew of family pedigree studies, publicly exposing the decline of the germ-plasm quality of the American public. Goddard used a Greek pseudonym for a real family living in New Jersey, not far from the Vineland Training School for Feeble-minded Boys and Girls where he was director of a new laboratory for the study of mental deficiency. *The Kalikak Family: A Study in the Inheritability of Feeble-mindedness* (1912) was featured prominently in subsequent textbooks and eugenics courses (including examples listed in later sections of this article) and was offered as scientific proof for the “menace of the feeble-minded” at state and federal hearings for immigration restriction, compulsory sterilization, and other social-hygiene issues. Many family pedigree charts showed the inheritance of feeble-mindedness, sexual immorality, alcoholism, criminality, and insanity in the “bastard family” of Martin Kallikak after his “unholy union with a feeble-minded bargirl” during the American Revolutionary War. All these inherited social evils were portrayed as simple Mendelian recessive traits similar to wrinkled seeds in Mendel’s corn plants or to white-eyes in a fruitfly. For Goddard, the results of this groundbreaking study clearly showed that feeble-mindedness and its attendant social evils were “transmitted as regularly and surely as color of hair and eyes” (Kevles, 1995, p. 79). Figure 8 shows a graphic representation of Goddard’s family portrait in a 1934 German translation.

Like several of his renowned students, G. Stanley Hall’s involvement in the eugenics movement had profound implications for education¹². As Kliebard (1986, p. 47) notes, Hall believed that:

nature not only fixed the stages through which all human beings passed, but determined the limits of human educability and, hence, the nature of the social hierarchy. A strong believer in hereditary determinism, Hall advocated differential instruction based on native endowment and even separate schools for “dullards” in the elementary grades.

The mental tests that Goddard, Laughlin, Terman, Thorndike, and Yerkes (all members of the AES) developed were to be important instruments in differentiating the dysgenic “dullards” from the “eugenic gold.” Their use throughout the education system was advocated by Yerkes, a former president of the American Psychological Association, professor of Harvard, and director of the Army Mental Testing Program. They were also recommended as a filter for immigration by the AES Committee on Selective Immigration. The use of these new scientific mental measurements, it was believed, would benefit the eugenicists’ cause in three important ways:

First, the use of these tests would aid them in arguing for the hereditary nature of intelligence, a key assumption of the movement. Second, the very act of administering the examinations would legitimate the tests. And third, it would give professional status to those who administered them. (Yerkes, 1921 in Selden, 1999, p. 29)

These pioneering wizards of biometry and psychometrics were proved to be right on all counts, even if few people today are aware of their eugenic origins. The military's continued dalliance with intelligence/aptitude testing and their widespread use in education continued to justify racial discrimination and preferential treatment for established elites long after their cultural biases were exposed. Brigham, Goddard, Terman, Thorndike, and Yerkes were active for many years in advocating for and publishing articles and books on eugenic advice and methods for progressive education. Goddard, in particular, was especially prolific in authoring educational texts such as *School Training of Defective Children* (1923). This is consistent with his upbringing in rural Quaker schools in Maine and his first career as a teacher in Quaker schools and junior colleges (Zenderland, 1998)¹³.



Figure 8. A portion of a lavish, revised Kallikak Family pictorial taken from a 1934 German translation (*Die Familie Kallikak*) of Goddard's 1912 classic. This picture includes English translations of the German terminology. For the American 'civic-biology' equivalent see p. 171 of Smith (1985). For a complete, unadulterated image of the 1934 German version see p. 163 of J. David Smith's *Minds Made Feeble: The Myth and Legacy of the Kallikaks* (1985). The semiotic message has been translated as well. A 1935 Nazi-approved race-hygiene textbook altered the caricatures of the 'Kakos-side' of the family to resemble the Polish Jews accused of encroaching into the borderlands of the Reich, especially the vast farmlands of East Prussia.

See Andrew Zimmerman's *Alabama in Africa: Booker T. Washington, the German Empire, and the Globalization of the new South* (2010) for a chilling description of the parallels and interaction of American Eugenics and negro vocational education in the 'New South,' with German race-hygiene in the 2nd Reich, as well as in Germany's African colonies, especially cotton growing in Togo during the early 20th Century. Does this sound anything like Globalization version 1.10?

Eugenics in the Classroom

The inclusion of formal eugenics instruction in schools and colleges was more problematic than many disciples had foreseen. In some American states or Canadian provinces with majority Catholic or large immigrant populations, politicians and officials barred the gate to any overt inclusion of eugenics, especially at the high school level. There was considerable resistance on the part of school administrators, parents, and communities. Elsewhere, however, attempts at eugenics education found fertile ground. Several states of the American South, especially those states where racial segregation was already the law of the land, quickly made eugenics a much desired field of study.

By 1914, Harvard, Columbia, Cornell, Brown, Wisconsin, Virginia, Northwestern, and Clark all offered courses devoted to eugenics. In 1912, Roswell H. Johnson began a eugenics course at the University of Pittsburgh and a large number of textbooks began to appear, including Johnson's own *Applied Eugenics* (1918) that he co-authored with Paul B. Popenoe, then the chief editor of the *Journal of Heredity* (Haller, 1963). The number of American colleges and universities offering separate eugenics courses grew from 44 in 1914 to 376 in 1928 when 20,000 students were enrolled (Cravens, 1978, p. 53).

In addition to discrete courses, eugenics was often incorporated into introductory biology or "civic biology" courses, meant to influence even larger numbers of the next generation's business and professional leaders. The American Eugenics Society foresaw this and its Committee on Formal Education espoused the diffusion of eugenics across curriculum, from the elementary school through college levels, and even prescribed an early form of inquiry learning to make instruction more effective:

Sensitive to charges that eugenics was a pseudoscience, [the AES Committee on Formal Education] recommended that information on human biology be made by "method of direct scientific observation rather than by methods of secondhand or hearsay evidence". As the committee's leadership instructed, "by thus substituting direct observation and measurement, both physical and mental, for indirect and uncertain methods, we shall be laying a permanent foundation for the type of research required before eugenics can be accepted on a par with other experimental sciences." (Selden, 1999, p. 29)

The most common method of "direct scientific observation" was the study of pedigree charts, as popularized by Davenport, Goddard, and other eugenicists. These charts illustrated the inheritance of feeble-mindedness and other social ills in simple Mendelian fashion, and experimentally confirmed the danger of race-mixing, and the threat of "race suicide" with the uncontrolled reproduction of racial undesirables. Selden provides a compelling analysis of the penetration of eugenics into the college curriculum and its incorporation into biology textbooks in "Education Policy and Biological Science: Genetics, Eugenics, and the College Textbook c. 1908-1931." He describes the success of the AES Committee on Formal Education in infiltrating the colleges—the "cream of the American germ-plasm" of the nation—with its agenda:

Whether as proponents of, or apologists for, a racially biased or class-structured social order the [eugenics] movement and its supporters were successful in educating young people to the hereditarian truths of eugenics. They save a central role for schooling in their vision of progressive human improvement that encompassed both the content of the curriculum and the form of educational institutions. It was a vision that required popularization and curricular implementation. The history of eugenics and American education suggests that these tasks were carried out simultaneously, and in many cases by the same cast of characters. (Selden, 1985, p. 38)

Citing the intimate links between eugenics and education in the lead article of the first issue of the AES journal, *Eugenics: the Journal of Race-betterment* (1928), Harvard-trained biologist and then University of Michigan president-author Clarence C Little¹⁴ offered hope to the progressives in education who were looking for a scientific and professional basis for their discipline:

Described as two ‘new sciences’ eugenics and education were judged as interdependent based on education’s need for a scientific basis and eugenics ability to supply it. “Education” the article charged “has long felt the need for an adequate body of scientific data to provide for it the foundation necessary to any properly established profession.” (in Selden, 1985, p. 39)

Who was this “cast of characters” that supplied the texts for these new scientific courses? They were all charter members of the AES and other American eugenic organizations: Charles Davenport (1911), Princeton’s Edwin G. Conklin (1915), and Roswell Johnson and Paul Popenoe through their *Applied Eugenics* (1918; Selden, 1985, p. 42). Conklin’s *Heredity and Environment in the Development of Man* went through six editions through 1965 while Popenoe and Johnson’s practical tome went through eight English editions until 1949, plus a 1922 Imperial Japanese version. Figure 9 shows the contents page of the original (1918) version of *Applied Eugenics*. The insiders who formed the AES and its committee on formal education managed to get their own gospels of American eugenics into the classrooms and libraries without being watered down or filtered by intermediaries who did not share their religious zeal for the subject.

Civic Biology at Eugenics High

Like their college counterparts, most high school students’ first foray into eugenics was usually in biology class. Steven Selden analyzed the content of 41 high school biology textbooks published between 1914 and 1948 found in the collection at the National Institute of Education Library in Washington. Over 87% of these texts included eugenics as a topic and just over 70% “recommended eugenics as a genuine science” (Selden, 1999, p. 64). Goddard’s *The Kallikaks* (1912) was mentioned in 60% of the texts, which often included reproductions of his pedigree charts. Figure 8 shows a later, Germanized pictorial version. Even though positive eugenics was emphasized in these texts, many authors still presented immigration restriction and segregation/sterilization as public policy options. The appended “recommended sources for further reading or study” referred students to the same authors that supplied the college market and directed the eugenics movement.

The iron-man evangelist of eugenics in high school biology texts was Dr. George W. Hunter Jr., lecturer of methods of education in science at Claremont College in California. He produced no less than six eugenic volumes over 27 years. Hunter created the market with *A Civic Biology: Presented in Problems* (1914) which was updated in 1926, followed by *Problems in Biology* (1931), *Biology: The Story of Living Things* (1937), and culminated in 1941 with *Life Science: A Social Biology* (Selden, 1999, pp. 70-76)¹⁵. Hunter and his *Civic Biology* became minor celebrities during the “Scopes Monkey Trial” when high school biology teacher John Scopes used this text in his class (Clark, 2001, p. 1276). The issue in that trial, interestingly, was the coverage of human evolution, not eugenics.

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 Figure 9. Contents of Popenoe & Johnson's very popular text *Applied Eugenics* (1918 edition).

Although the treatment of eugenics varied over time, the same messages and sources were used throughout the period, despite evidence from new genetic research that discredited the oversimplified Mendelian rules of inheritance for the complex traits that remained the staple of eugenics literature. In his treatment of the possibilities of eugenics in solving social biology problems, Hunter (1941) did not shy away from sensitive topics:

To make matters worse, the feeble-minded are breeding much faster than the mentally fit. To meet this situation, it is necessary to have some physical control, thus preventing this kind of person from breeding. Two methods, one segregation into separate institutions for males and females, the other sterilization...are possible practices. A third is by practicing [positive] eugenics, by having those of good physical constitutions and mental ability marry and have many children. (p. 767)

Even as America was being reluctantly drawn into the war already raging in Europe, Hunter raised the eugenic possibilities of war: “a good biologist would...[send] the mentally unfit to be killed off and [keep] the biologically fit at home to continue the race” (in Selden, 1999, p. 76). Other authors, such as Zoology chair (1911-1945) Michael F. Guyer of the University of Wisconsin, continued to include eugenics as topics for chapters even after the war had ended. Guyer introduced eugenics in Chapter One of his *Animal Biology* (1948)¹⁶. Despite the tame title, this text offered typical advice on human improvement that might have been found in German race hygiene texts of the previous decade, or in Madison Grant’s *Passing of the Great Race* (1916), such as these bits of progressive era eugenic wisdom:

Certain hereditary types are more valuable to society and the race than others... in many family strains the seeds of derangement and disability have become so firmly established that they menace the remainder of the population. (Guyer, 1948, p. 552)

[A]t present the less able fourth of our population is reproducing approximately one-half the next generation. The greatest danger to any democracy is that its abler members and less prolific types shall be swamped by the overproduction of inferior strains. This has been the fate of past civilizations – why not America. (p. 556)

By the 1930s, most American geneticists had professionally (though seldom publicly) repudiated the claims of eugenics with regard to simple Mendelian inheritance of such traits as feeble-mindedness, sexual immorality, and criminality. However, the eugenic biology texts did not keep up with current research. As Selden concludes in his analysis of civic biology texts,

Whether by consequence of what one might call a “dissemination lag” or by intention, the majority of the books did not report the conceptual and empirical changes under way in biology at the time... Indeed, most of these books reflected social attitudes and political theories rather than a clear rendering of scientific data... [and instead show a] commitment to a hierarchical and corporate social order that assigned individuals social locations based on their [perceived] hereditary worth that preceded and informed their discussion of human possibilities. (Selden, 1999, p. 82)

This dissemination lag is evident in the latter works of both Hunter and Guyer. Selden asserts that these books were not usually overtly racist but allowed the evidence to speak for itself as much as the AES Committee on Formal Education had recommended. While this may be generally true for bulk of the texts Selden examined in his survey of high school eugenics

texts, this did not apply to these two prolific authors or to their later output during the alleged reformation of racial excesses in eugenics.

In George William Hunter's *Biology: The Story of Living Things* (1937), for instance, the issue of race still plays a prominent and relevant role despite the innocuity of its title. Co-written with Herbert Eugene Walter, Professor of Biology at Brown University and George William Hunter III, Assistant Professor of Biology at Wesleyan University, it is described as an "ecological approach to a study of general biology" (p. vii). In Chapter XXIII "That Animal, Man (Anthropology)" (pp. 130-156), readers are served with a treatise on "the process of becoming human" (p. 131). After being introduced to our primate cousins through Robert M. Yerkes' research, the authors move to the origins of man in Java Man, Heidelberg Man, Piltdown Man¹⁷ jokingly referred to as "Charles Darwin's Neighbor" (p. 556), Peking Man, The Neanderthals (posited as a separate lineage to humans), and finally the "wild horse and reindeer hunters" *Aurignacians* and *Cromagnons*. The similarity of its sequence to Henry F. Osborn's *Men of the Old Stone Age* (1915) struck me as eerie. Osborn's text is listed as a primary reference and is included in its suggested readings.

Consistent with the elder Osborn's *Nordicist* racial worldview, Hunter et al. devote six pages to the races of man and students are instructed that "The science of *Ethnology* is concerned with sorting out different races by means of an analysis of their several characteristics" (p. 559). In a long paragraph on the "*White race*," we are told it is "divided into at least four sub-races, namely the Mediterranean, Armenoid, Alpine, and Nordic."

Individuals of the *Mediterranean sub-race* are typically short, slender, olive-skinned, narrow nosed, and long-headed. They include various peoples of the Mediterranean coasts, Spaniards, Portuguese, Greeks, Cretans, some Italians, Persians, Berbers, Arabs, Phoenicians, most Egyptians, and some Irish and Welsh. The *Armenoid sub-race*, characterized frequently by a prominent convex nose, have, in many instances, a decided flair for commerce...They include Armenians, Turks, some Persians, and Jews. The *Alpine sub-race* is made up for the most part of stocky, round-headed people, including many Russians, Greeks, Swiss, North Italians, South Germans, Balkans, Czechs, Poles and French. The members of the *Nordic sub-race* are characteristically tall, fair-haired, and blue eyed with narrow, fine-featured faces and well-developed chins. They include Scandinavians, North Germans, Netherlanders, Flemings, many English, Scotch and some [European] Russians. (pp. 561-562)

The authors then introduce the ethnological tools and measurements for sorting humanity, in "Passing Muster" (p. 563). Students are also directed to "a compact pocket manual, entitled *Essentials of Anthropometry*," published by the American Museum of Natural History¹⁸. Diagrams showing critical skull measurements and a photo of cranial calipers used by physical anthropologists for racial studies are explained. This may not be overtly *racist* but it is certainly overtly *racial*. The final unit, "Man as a Conqueror," begins with chapters on the ecology of plants and animals, as well as their breeding by man and the harm caused by diseases, parasites, and invasive species.

The short final chapter "The Next Million Years" (pp. 637-643) serves up a program on "Human Betterment," the "Biological Background of Eugenics," and "The Moral at the end of the Tale." "Suggested readings" by prominent eugenicists include books by Major Leonard Darwin (*What is Eugenics?*, 1929), Samuel J. Holmes (*Human Genetics & its Social Import*, 1936), Ellsworth Huntington (*Tomorrow's Children*, 1935), Popenoe and Johnson (*Applied Eugenics*, 1933), and Albert Wiggam (*Fruit of the Family Tree*, 1931). Hunter also provides the address of

the Eugenics Record Office at Cold Spring Harbor “for information of all sorts about eugenics” (pp. 642-643)¹⁹.

The case of G. W. Hunter and his son is also similar to the case of Michael F. Guyer. In *Speaking of Man* (1942), even as the "Final Solution" was being implemented in Nazi-occupied Europe, Guyer's words of eugenic wisdom ring loud in the opening chapter “Biology and the Happy Life”:

Yet war, grave as it is, is probably not as serious a menace as the racial deterioration which is occurring in various civilized countries through the disproportionate increase of defective and undesirable strains. No government can rise far above the level of abilities of its constituents... In brief, it is a biological problem. The greatest danger of any nation is that its abler and less prolific types will be swamped by the overproduction of less able strains. We have so eased the rigors of social and physical environment that inferior stocks are not only holding their own but some of them are increasing faster than desirable ones, and unless we can institute an intelligent selection in place of the natural selection which we are thwarting, the prospect for our nation—for civilization as a whole, indeed— is, to put it mildly, far from encouraging. (p. 9)

One wonders what the trajectory of American eugenics and its educational derivations might have been had the postwar anti-Nazi backlash not temporarily squelched the movement. (See the later section on Ivey Foreman Lewis for one possible scenario.)

Encouraging the “Mother of Tomorrow”

Another persistent and perplexing dimension of eugenics education for American eugenicists and their educational agents was eugenics education for girls and women.

Although the leadership of American eugenics organizations was predominantly professional, middle class, middle-aged, white men, it had its fair share of support from women, mostly in the form of loose alliances with various social movements. The Birth Control and Temperance movements as well as other contemporary feminist social-hygiene organizations tentatively supported eugenics, and vice-versa, in a somewhat tenuous symbiotic mutualism. One of the fundamental goals of eugenics was to re-establish the primacy of prolific motherhood among the “fitter classes” of women, especially female college graduates, while negating the problematic modern diversions of extensive career and educational ambitions. The Janus-face of this program was to suppress the reproduction of the feebleminded “moron girls” and “women adrift” – whose alleged precocity was equaled only by their mythic fecundity – and to combat the so-called “racial poisons” of alcohol, tuberculosis, venereal diseases, and other vices that afflicted the “less desirable” groups of American women. For a graphic illustration of positive and negative eugenics aimed at women see Figure 10. As Wendy Kline asserts in her introduction to *Building a Better Race* (2001):

Eugenicists promoted two opposing models of womanhood that suggested the importance of gender to eugenics ideology: the “mother of tomorrow” and the “moron girl.” The mother of tomorrow represented the [eugenic] procreative potential of white middle-class women, while the moron symbolized the [dysgenic] danger of female sexuality unleashed. Together these models, which carried great symbolic weight in the eugenics movement, demonstrated that the eugenic definition of womanhood was double-edged: it portrayed women as responsible not only for racial progress but also for racial destruction. (p. 15)



"HER SON"
\$4000 prize Statue by Miss Nellie Walker
Courtesy Chicago Art Institute

Who will be the Mothers of Coming America?

—

*The American Woman
is Rapidly Becoming Ugly*

—

Prof. Ross has proved it. When the low immigrant is giving us *three babes* while the Daughter of the Revolution is giving us *one* it means the Gibson and Harrison Fisher Girl is vanishing. Her place is being taken by the low-browed, broad-faced, flat-chested woman of lower Europe. If this continues it means a progressive loss of racial excellence, intelligence and power.

Imbecility and Genius are both Inherited.

Only opportunity will bring out inborn genius, but imbecility **always** shows.



FEEBLE - MINDEDNESS

Pedigree collected by Dr. H. H. Goddard.
The black ones are all feeble-minded.



GENIUS

■ Means Fellow of Royal Society.
♣ Means Eminent in Science. Pedigree collected by Mr. and Mrs. Whetham of England.

Imbecility is increasing. Great men are decreasing

COIT BUREAU
Cleveland

MUTUAL BUREAU
Chicago

WHITE BUREAU
Boston

Figure 10. A 1922 advertisement by the Human Betterment Foundation in *Collier's Magazine*. The 'Prof Ross' is sociologist E.A. Ross. The bottom left pedigree chart is from Henry Goddard's *The Kallikak Family* (1912).

Teddy Roosevelt placed the blame for *race suicide* on white womanhood. Women of “good stock” who chose not to have children were “race criminals,” and jeopardized the continuance of the American empire since “no race has any chance to win a great place unless it consists of good breeders as well as good fighters” (Kline, 2001, p. 15). No segment of American femininity seemed to offer as much eugenic promise of being “good breeders” as those who comprised the population of women’s colleges and those few universities that equally accepted women as students outside of the traditionally female schools and faculties, such as nursing and teaching. This dysgenic problem of the “differential birthrate” between the “fit and unfit” members of the white race was to preoccupy eugenic think-tanks for decades, from the time of Teddy Roosevelt’s warning of race suicide in the first decade of the 1900s to the last hurrah of organized American eugenics in the baby boom years.

Edward L. Thorndike, among others, lamented this differential birthrate as early as 1903. By 1915, in “Education and Race Suicide,” Robert Sprague charged that women’s colleges were “drawing off the best blood of the American stock and sinking it in a dry desert of sterile intellectuality and paralytic culture” (Sprague, 1915, p. 160). University of Pittsburg professor (and *Applied Eugenics* co-author) Roswell H. Johnson warned that the “extraordinary inadequacy of the reproductivity of these [women’s] college graduates can hardly be taken too seriously” (Vigue, 1987, p. 52). Johnson’s former co-author Paul Popenoe sermonized in 1926 that it was “little less than a crime to advise girls to wait until they are 30 or more to marry, in order to get a better preparation... for a career rather than marriage” (in Rembis, 2006, p. 103).

According to Popenoe, there was “probably not one such case in a hundred where the advice is really justified; but the girl, misled by the vanity of her parents and the praise of incompetent teachers who want a pupil... spends great amounts of time and money in training only to find later that there is no career for her, or, if there is, that she would have preferred a family”. Eugenacists insisted that parents should help their daughters fulfill their biological destiny and become good wives and mothers; anything less would be a tragic waste of time and effort.

Vigue details the growing concern, explanatory theories, and suggested remedies for the ongoing problem of the problematic differential birthrate in “Eugenics and the Education of Women in the United States” (1987). At the “Race Betterment” exhibit of the 1915 San Francisco Pan-Pacific Exhibition and continuing with popular “Better Baby” and “Fitter Family” contests of the 1920s and 1930s, eugenacists tried to promote the image of the “mother of tomorrow.” Simultaneously, they attempted to counter the combined threats of the extreme fecundity of the “moron girl,” the individuality and unchaperoned sexuality of the “woman adrift” (perhaps best portrayed by the “flapper girl” of the 1920s), and the barren spinster destiny of those poor denizens of Bryn Mawr, Vassar, and Wellesley colleges.

The growth of eugenic segregation and compulsory sterilization policies enacted after World War I were beginning to have the desired effect of limiting the reproduction of those “better off never to have been born,” to paraphrase Supreme Court justice Oliver Wendell Holmes’ judgment in the 1926 *Buck v Bell* case. However, positive eugenics goals proved more elusive and depended heavily on reorienting the education of women more interested in Greek classics, French poetry, or Freudian psychology. Roswell Johnson bemoaned the “stubborn resistance of these colleges to the introduction of education for domestic efficiency,” the enforced separation of the sexes, and charged that their failure to produce “girls trained to be efficient wives and mothers is one of the causes of the low marriage rate and late time of marriage” – all of which was “contrary to the interests of society and the race” (in Vigue, 1987, p. 53).

Eugenicists began to see some hopeful progress on this front when women's colleges and coeducational institutions began to offer eugenics courses aimed at young women, as part of their offerings in biology, home economics²⁰, and sociology programs, as well as high school courses that groomed potential "mothers of tomorrow." The peak of eugenic education for women did not occur until the 1930s when the impacts and social dislocations of the Great Depression fostered a new focus on the family, traditional morality, and gender roles. A host of new eugenic texts aimed to redress these perceived problems. In a chapter from *Popular Eugenics* (2006) titled "Explaining Sexual Life to Your Daughter" (named after the chapter title of a popular Depression era book, *Eugenics and Sex Harmony*, first published in 1933), author Michael Rembis outlines the growth of eugenic literature and education programs aimed at young women. The topic was also featured in the "eugenic catechism," *Tomorrow's Children*, written by Yale's Ellsworth Huntington (1935) – then president of the AES. Like the well known Baltimore Catechism, it is written in question-and-answer format. Echoing the depression socialism of Roosevelt's "New Deal" policies as well as Francis Galton's analogous Victorian era scheme, Huntington recommended economic incentives of direct subsidies and tax credits for eugenically desirable parents to have larger families.

Taking a cue from Paul Popenoe's earlier (1926) treatise on eugenic marriage, North Carolina professor Earnest R. Groves – a member of the Advisory Council of the AES – was one of the first educationists to address this dire need for women's eugenics (see Figure 3). His pioneering course and popular book introduced in 1936, *Preparation for Marriage*, linked the science and sociology of eugenics to mate selection and marriage. These new initiatives, as Kline (2001, 2006) and Rembis (2006) noted, signaled a newfound emphasis on family, environment, and upbringing with hereditarian priorities and a growing desire to distance American eugenics from the overtly racist tone of the Nazi race hygiene programs. As Rembis asserts:

Proponents of eugenic education focused their campaign largely on young women, particularly those attending college... [agreeing] with Paul Popenoe's assertion that sex "played a somewhat larger part in the life of woman than of man" and "if there is to be any difference in emphasis, women should have a more thorough preparation for family life than do men." The result, at least in part, was the creation during the 1930s of college-level courses that were aimed primarily at women and specifically dealt with marriage, family and eugenics, as well as concerted efforts to inculcate eugenic ideals in young women and girls, in their homes, grammar schools, and high schools. (Rembis, 2006, p. 103)

Proselytizing Professors of Eugenics

For educators who wish to learn more of the prophets of eugenics in formal education, two recent case studies offer an enlightening revelation of personalities, professional careers, and the impact of eugenics instruction at the college level.

A recent example is the story of Harvard University's physical anthropology professor, Earnest A. Hooton (1887-1954), in Nicole Rafter's contribution "Apes, Men, and Teeth" to *Popular Eugenics* (2006). Like a surprising number of American eugenicists, Hooton's parents were a Methodist minister father and a schoolteacher mother but unlike the very "upper crust," they were recent immigrants from England and Canada, respectively. Hooton earned his first doctorate at Wisconsin (Madison) before travelling to University College, Oxford as a Rhodes scholar earning advanced degrees in anthropology (1912) and anatomy (1913). Hooton's interest and early scholarly work in pure physical anthropology gave way as time passed to a greater

passion for eugenics and he began researching, for instance, the hypothetical hereditary link between crime and poor dental health.

Hooton had a career-long (1913-1954 at Harvard) fascination with tooth decay as a metaphor for the genetic deterioration of races. One example of his creative genius in allegorizing the eugenic downfall of humanity with poor dental health can be extracted from this short piece of dental doggerel verse regarding the hereditary woes of “Rhodesian Man” discovered in Africa in 1921, about whom Hooton lectured extensively in his class²¹:

It is the guy, Rhodesiensis
With whom our tooth decay commences:
Caries, abscesses, gingivitis,
Otitis media and arthritis.
I hardly think a brute so crude
Could blame his teeth on processed food.
Perhaps dental degeneration
Started with germinal mutation.
(Rafter, 2006, p. 256)

Hooton’s 1937 opus, *Apes, Men, and Morons*, cracked bestseller lists in the Great Depression. Figure 11 shows a picture of Hooton with one of his anthropoid specimens and his popular appeal in American society. His influence is seen through the professional discipleship of former students with “three nearly identical introductory anthropology courses being taught at Columbia, Wisconsin, and Michigan, all by former students of Hooton, and apparently all based on notes taken in Hooton’s popular class” (Rafter, 2006, p. 252). He became a celebrity, a household and national name even before his popular book hit bookstands. Nicole Rafter describes a career that many ambitious academics would give their eye-teeth for:

Hooton became an early example of the professional media star, his activities reported by the *New York Times* and other newspapers and his work profiled by magazines such as *Life*, *Look*, *Newsweek*, and *Time*. A witty and stimulating speaker he participated in radio debates, delivered distinguished lecture series, and addressed Harvard clubs, eugenic groups, and dental associations. In addition, Hooton wrote for general-interest magazines such as the *Atlantic Monthly* and *Collier’s* and for specialized dental journals, developing a pop eugenics form of essay that linked evolution – including the evolution of teeth – to eugenics. (Rafter, 2006, p. 252)

If the story of E.A. Hooton provokes thoughts of the original version of *The Nutty Professor*, the second case study may be more evocative of *The Boys from Brazil*, starring the late great Gregory Peck as a latter day Dr. Josef Mengele (Auschwitz’s “Angel of Death”). Gregory Michael Dorr (2000) profiles biology professor Ivey Foreman Lewis’ long and distinguished career at the University of Virginia from 1915 to 1953 in “Assuring America’s Place in the Sun.” It is an in-depth study based on official/personal papers and correspondence, lecture notes, course outlines, reading lists, and 27 students’ term papers. Foreman taught thousands of students the finer points of eugenics and Southern-style race hygiene during his 38-year tenure. He also started a university chapter of the AES and served as an advocate for both pieces of Virginia’s 1924 eugenic legislation: one mandating compulsory sterilization for the feebleminded and the *Racial Integrity Act* banning interracial marriage (Dorr, 2000, p. 265). That same year,

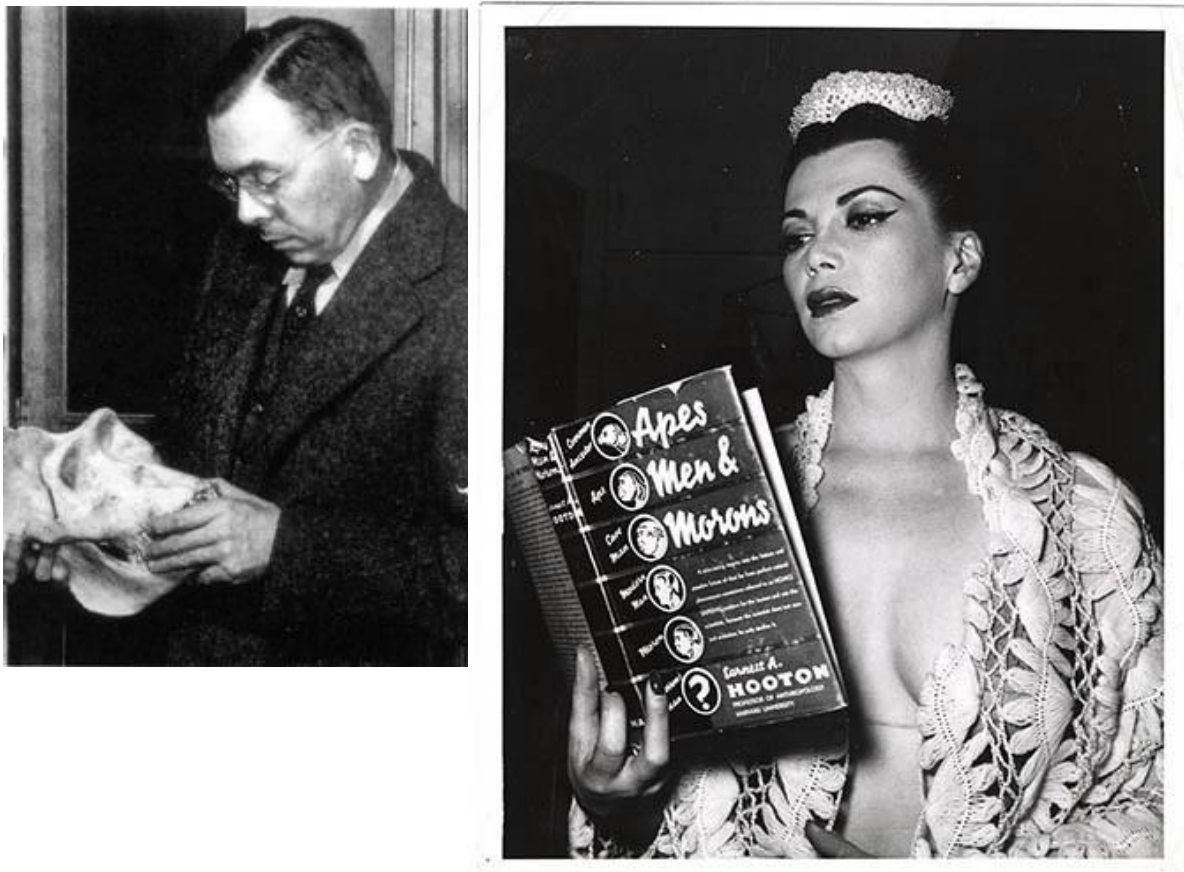


Figure 11. Left: Earnest A. Hooton with one of his dental-challenged specimens of racial deterioration, in a scene out of Hamlet. Is something rotten in the State, or at Harvard? Right: Showgirl Sherry Britton catching up on her eugenic reading with Hooton's 1937 bestselling popular text on evolution, bad breeding and its implications for America.

Foreman made a speech to graduating Virginia students that was first reported by the *New York Times* and reprinted in the *Virginia Teacher*:

The one clear message that biological investigation has brought as its gift to the thought of the twentieth century is that the idea of environment molding something out of nothing is sheer nonsense. This disproved theory of the creative environment has been put forth in siren tones until the idea of the great melting pot, into which one can put the refuse of three continents and draw out good, sound American citizens has reached wide acceptance. It is simply and perilously false... The purity of the white race in America which we regard as a basal necessity for the maintenance of the heritage we have received risks destruction. (Foreman in Dorr, 2000, p. 272)

Foreman seems to have been a very popular professor among his many students, some of whom continued to correspond with him years after graduation. He also served as an important advisor and confidant to university president Edwin Alderman. Alderman described Foreman in glowing terms "He is a gentleman by birth and breeding, and a cultivated gentleman." Dorr

notes that Foreman managed to arrange the hiring of three avid eugenicists to faculty positions, and to block the appointments of others who did not share his strong hereditarian views (Dorr, 2000, pp. 268-272). Foreman eventually rose to the position of Dean of the College of Arts and Sciences at Virginia, and travelled throughout the state speaking to educators, including the Roanoke Teachers Association in 1937, waxing on the thorny subject of inherent inequalities between humans:

There is a lot of sap-headed thinking...mostly based on the silly notion that all men are brothers and therefore alike in their potentialities. Actually there is no biological principle better established than that of the inequality of races, and yet sociologists, especially the Jewish ones, are loud and effective in their denial of any racial differences, even saying that there is no such thing as race. They deride and laugh to scorn such books as Madison Grant's "Passing of the Great Race." (in Dorr, 2000, p. 273)

In Foreman's "Evolution and Heredity" course, Darwin's *Origin of Species* and Popenoe and Johnson's *Applied Eugenics* were the two most common books on reading lists. As Dorr documents, however, Foreman also revered some of America's most virulently racist authors: Lothrop Stoddard, Virginia's own Earnest Sevier Cox, and the aforementioned Madison Grant. With such titles between them as *White America*, *Teutonic Unity*, *The Rising Tide of Color against White World Supremacy*, and *Revolt against Civilization*, they would be quite at home in a contemporary Ku Klux Klansman's personal library²². Figure 12 shows the impact these most racially virulent American eugenicists had on the Nazi race hygiene movement.

Foreman had already been a member of the American Association for the Advancement of Science (AAAS) before beginning his teaching career at Virginia. When he officially retired from this august organization in 1951, he had risen to the post of vice president. He made history when the organization refused to publish his racist and anti-Semitic retirement address, "Biological Principles and National Policy," in its official journal *Science* (Dorr, 2000, p. 290).



Figure 12. Professor of German race-hygiene, Dr. Eugen Fischer reading a copy of the American Journal of Heredity in his office at Berlin-Dahlem. Fischer was one of a handful of longstanding academic devotees of Teutonic eugenics who was recruited by the Nazi state to oversee and administer their State science-religion. Fischer served on the Heredity Courts, providing judgments on the fitness for life of numerous *mindervertig* (inferior or useless). Over 200,000 were to be exterminated in the 'T-4' euthanasia pogrom, beginning in Fall of 1939.

His collection of private papers at Virginia includes several heartfelt letters of support from former students and well-wishers after this slight at the end of his distinguished career. One letter is quoted by Dorr for its ominous connection to the defeated Nazi regime in Germany that Lewis admired for its strict and comprehensive race-hygiene and eugenic policies:

James A. Tignor wrote “the German and his kindred races alone seem still to be dependable, honest, reliable and willing to work... The Gestapo [*sic* – should be the SS] was the only revolt of the fit people and I can well visualize it, if things keep on this way, as preferable. Enough is enough! Keep up the fight.” (in Dorr, 2000, p. 291)

Facing History and Ourselves

There are many good reasons for educators to study the history of eugenics not only in America but around the world. Eugenics was, is, and may always be a powerful meme in modern human societies even when it goes under alternate names such as evolutionary psychology, social biology, or physical anthropology. Racially motivated uses of biometrics and psychometrics as in *The Bell Curve* and a plethora of subtle or overt social welfare and private enterprise mutations of Francis Galton’s secular religion of racial betterment belie the common assertion of the final dénouement of eugenics in the rubble of Nazi Germany and its gas chambers. The banal institutionalized educational enculturation of eugenics along with curricular and methodological remnants persist even when divorced from their scientific racism and eugenical origins. While the use of IQ Tests to argue for a racial and cognitive underclass in *The Bell Curve* is an obvious example, other eugenic remnants, such as Karl Pearson’s r (coefficient of correlation named after Galton’s “regression towards the mean”), are used by numerous educators and social scientists without any knowledge of their genesis. As Diane Paul (1998) noted, labeling something today as “eugenic” is often used to rhetorically tarnish current or future morally and/or ideologically contentious issues (such as Genetic Counseling or Pre-implantation Genetic Diagnosis); however, it is seldom used to question the eugenic origins of those methods, techniques, and theories that are deeply embedded in the accepted paradigm(s).

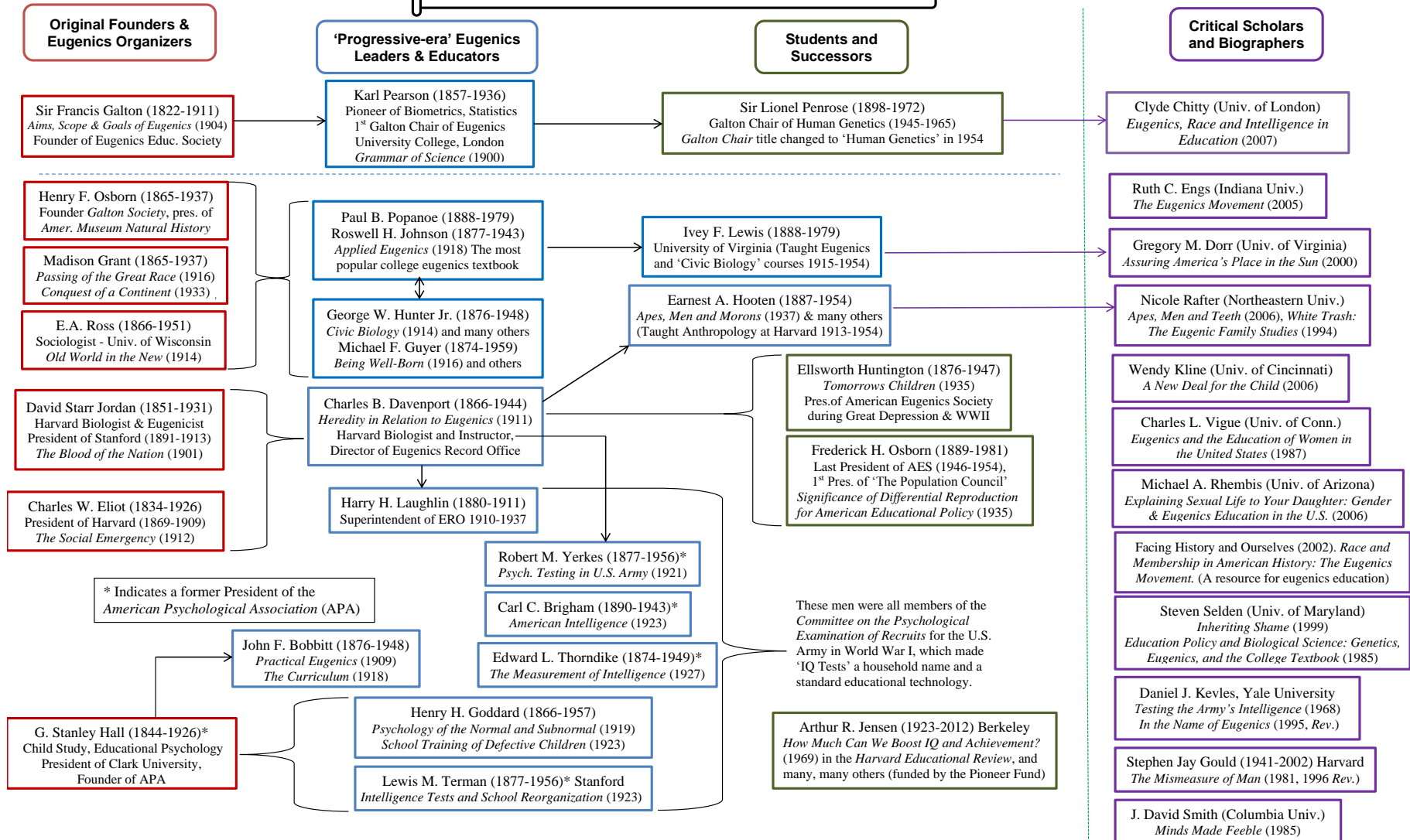
Since the start of my formal study of eugenics and its penetration into educational forums and curricula, I have been struck by the continued use of eugenics ideology and slurs in popular culture, especially discussion forums on the Web or on television and in popular science fiction. The continued popularity of eugenics-inspired themes in recent movies and mass media without any overt reference to, or consideration of, “old-school” eugenics and race-hygiene disturbs me. A prime example of this is *GATTACA* (1997) that starred Ethan Hawke and Uma Thurman. Although these recent forays into futuristic eugenics are almost always intended as cautionary tales, each new version also inspires legions of fan-boys and fan-girls to emulate and worship their eugenic heroes or heroines. Perhaps the best example of this phenomenon is *Star Trek Voyager*’s “Borg Babe” *Seven of Nine*, ably played by ‘blond bombshell’ Jeri Ryan.

In a way, the producers’ portrayal of futuristic eugenics as a negative dystopia has been remixed by fans into a desirable future, at least for genetic or technologically enhanced übermenschen. As we know from recent history, the inspiration by *Star Trek* and other popular science fiction franchises often acts as a catalyst to real-life innovation. Amnesia of the true cost of past eugenics and race-hygiene programs should evoke the old cliché about dooming those who forget history²³.

For educators who choose *not* to forget and wish to share the history and legacy of eugenics and state-sponsored racism with their students, there is now a first-rate educational resource. *Race and Membership in American History* (2002), published by the *Facing History and Ourselves National Foundation* in cooperation with Harvard's *Facing History Project*, offers teachers a wide panorama of the American eugenics movement and the history of scientific racism from Thomas Jefferson to the present. It includes a significant discussion of eugenics education, the textbooks and their themes as well as the eugenic origin and continued use of IQ testing. It is broken into nine series of short readings clustered around major themes such as "Eugenics and the Power of Testing," "Toward Civic Biology," and "Eugenics, Citizenship, and Immigration." Each reading has follow-up questions for contemplation, group discussion, suggested projects for further research, and an excellent selection of valuable primary and secondary sources. It is suitable as a standalone text for a humanities course at the high school senior level or, when supplemented with the listed sources, would be outstanding for use from the undergraduate to the graduate level in a variety of humanities and social science disciplines.

If I had my wish, this resource or one like it would be mandatory reading for graduate programs in educational psychology and policy studies, and a suggested option for science curriculum students and biology educators. Biologists and graduate students working in the field of human genetics, or engaged in the development of related biotechnologies would also benefit from a course or in-depth personal study of the history and legacy of eugenics. If only these lessons could be part of our current and future *grammar of science*, the future promulgation of eugenic memes and possible iterations of scientific racism will at least face some serious opposition and critique, rather than blind obedience to the imperative of racial progress, characteristic of the Progressive-era in 20th Century America and in Nazi Germany.

Historiography Chart of Eugenics Education



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Notes

- ¹ *The Pedagogical Seminary* which became *The Pedagogical Seminary and Journal of Genetic Psychology* from 1928-1953 was edited for many years by G. Stanley Hall, then President of Clark University and Professor of Psychology and Education. He was also the first president of the APA, and one of the few who have had multiple terms as its head (three in Hall's case). Hall is probably best known for being the founder of Child Study, then a new strand of curriculum studies. Several of his students, in addition to Bobbitt, became centrally involved in the Eugenics movement (Selden, 1999, pp. 42-43).
- ² The *Progressive era* has not been strictly defined. Sometimes postulated as 1890-1920, I would argue that this period for the American Eugenics Movement may be postponed to 1908 when the organized movement was founded with the Eugenics Section of the American Breeders Association, and extended to fall 1929 – to Black Friday, the day of the fateful stock market crash that kicked off the Great Depression.
- ³ The 1948 date corresponds to the Nuremberg trials and should not be interpreted as being the end of organized eugenics but merely the beginning of the end under that brand name.
- ⁴ This article is *not* intended to be an extended or detailed examination of the history and continued usage of intelligence tests in education or the ongoing debate of IQ vs. Race that was re-stirred to a boil by *The Bell Curve*, or by the many works of Arthur R. Jensen, beginning with his very controversial 1969 article in the *Harvard Educational Review*. The interested reader is directed to two subsequent edited collections: *The Bell Curve Wars* (Fraser ed., 1995) and *Intelligence, Genes, and Success: Scientists Respond to The Bell Curve* (Devlin, et al, eds., 1997), or to Stephen Jay Gould's revised and expanded *The Mismeasure of Man* (1996). In addition, Clyde Chitty's *Eugenics, Race and Intelligence in Education* (2007) covers the British experience of eugenics and IQ testing in education from Galton and Pearson to the present.
- ⁵ This refers to the opening quote by J.F. Bobbitt (1909, p. 385).
- ⁶ This text went through numerous editions from 1892 to as late as 1957. See Figure 4 for a more extended explication of the implications of the *Hereditary Genius* of Weismann and Francis Galton.
- ⁷ The study quoted by Popenoe and Johnson (1933) was conducted by J.D. Heilman and presented in the 27th Yearbook of the National Society for the Study of Education, Part II, 1928, pp. 35-65.
- ⁸ The Soviet Union's official adoption of 'Michurinism' (a Russian brand of neo-Lamarckian inheritance of acquired characteristics) under the leadership of Stalin and Trofim Lysenko was to have very serious and sometimes fatal consequences for Russian geneticists and eugenicists. Rejecting Mendel's and other western geneticists theories as "Imperialist" and "revisionist," Lysenko (with the personal blessing of Josef Stalin) led a pogrom against many Soviet scientists who subscribed to Western scientific ideas and methods. Beginning in the 1930s, Lysenko promoted Michurinism as a more Marxist-compatible and proletarian-friendly doctrine of inheritance and biological improvement. This movement was to have many dire consequences for Soviet agriculture and biological sciences particularly for those Russian scientists and their students who dared to oppose it, especially in the Great Purges of 1937-40. After Stalin's death in 1953, Lysenko and his disciples were gradually isolated and

- exposed as political opportunists and scientific charlatans. Several fields of Soviet biological science were set back by nearly four decades. Julian Huxley's *Heredity, East and West: Lysenko and World Science* (1949) has a fuller account of the "Lysenko Affair." For a shorter, recent account including the eugenic implications of Lysenkoism, see Kohlman, M. (2011). The First "Rise and Fall" of Trofim Lysenko: The Marxist-Michurinist Transformation of Soviet Agriculture & Genetics, 1927–1947. *Alberta Science Education Journal*, 41(2), 24-36.
- 9 Teddy Roosevelt remained a committed neo-Lamarckian throughout his life despite the conversion attempts of his eugenic advisors, such as E.A. Ross, H.F. Osborn, and Madison Grant. See Dyer (1980) for T.R.'s racial education.
 - 10 Laughlin's downfall began in 1935 when the CIW investigated Laughlin over his embarrassing support for eugenic sterilization in Nazi Germany. Laughlin caused further official embarrassment when he was awarded an honorary doctorate from the University of Heidelberg in 1937. He was forced to retire from Cold Spring Harbor around the same time CB Davenport formally retired. Ironically, Laughlin suffered from epilepsy, one of the dysgenic traits that the Nazis began to eliminate in 1939, the first mass use of Zyklon B and a training ground and technological pilot program for industrial genocide. Laughlin died a year before the War ended. See Weindling, 1989 for the complete and truly frightful story of German race hygiene and American influence.
 - 11 The term "native American" refers to "old stock" Anglo-Saxons who came to America during colonial times. For the most part, eugenicists ignored American Indians as they were already segregated on their reserves and stayed apart.
 - 12 Ironically after an early dalliance with eugenics, another former student of Hall - John Dewey - became one of its greatest resisters in educational academia.
 - 13 Goddard's mother found her true calling as a Quaker preacher following the death of her husband when Henry was eight years old. She was often away from home preaching the Quaker gospel, leaving Henry in the care of relatives or the church's boarding schools where he received his primary and secondary education. I wonder if Henry ever identified his mother with Martin Kallikak's "worthy Quakeress wife." See Smith (1985, p. 171) for a graphic depiction.
 - 14 Little left his position at Michigan due to his outspokenness in favor of eugenics, birth control, and euthanasia. In 1929, he became managing director of the American Cancer Society and later served as President of the American Eugenics Society. From 1954 to 1969, he was the Scientific Director of the Scientific Advisory Board of the Council for Tobacco Research. In 1959, he refuted his earlier assertion, made as director of the ACS, that inhaling smoke particles is unhealthy and stated that smoking does not cause lung cancer and is at most a minor contributing factor.
 - 15 Hunter also co-authored the very "progressive" *Science in our World of Progress* (1935), a civic science text aimed at the junior high market, volume 3 of the "March of Science" series which features several eugenic-themed chapters.
 - 16 Guyer also authored *Being Well Born* (1916, 1926), a eugenics text used in high schools and colleges for decades.
 - 17 Piltdown Man or *Eoanthropus dawsoni* was discovered to have been a hoax in 1953. Discovered in Sussex in 1912 and consisting of the lower jaw of an orangutan and the skull of

a fully modern human, the find was hotly contested for years but Osborn accepted the find as genuine in all his anthropology publications until his death. The Piltdown specimen fit nicely with Osborn's theory of racial degeneration of the original Mediterranean race that settled England in pre-Roman antiquity. For more details, see Kohlman (2012). The Anthropology of Eugenics in Progressive America. *Alberta Science Education Journal*, 42(2), 32-53.

- ¹⁸ Henry F. and Frederick H. Osborn's domain in New York City (site of the 2nd International Eugenics Congress).
- ¹⁹ Check these names against the listing of the leaders and directors of the American Eugenics Society in Figure 3.
- ²⁰ I find it interesting that the term "Home Economics" has been replaced by "Human Ecology" at this university especially considering this faculty taught a sort of "civic human ecology" during the height of our eugenics program.
- ²¹ Henry F. Osborn, as the dean of eugenical American physical anthropologists, completely rejected the African origin of modern humans; instead, he postulated that primitive humans from Asia entered Africa and "degenerated" into the black races while those who entered Europe evolved into the Aurignacians and Cromagnons of the *Old Stone Age* (1915). See Kohlman (2011, pp. 35-39) for more on Osborn's denials of any African origin of modern humans in Europe.
- ²² Alberta educators will probably remember the notorious Jim Keegstra at this juncture.
- ²³ In *my* future, I hope to devote an entire article to eugenics memes and ideas in science fiction and pop culture.

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