

BETWEEN SUMNER AND GALTON: A FURTHER LOOK AT ALBERT GALLOWAY KELLER'S SOCIOLOGY

BY
LUCA FIORITO
AND
VALENTINA ERASMO

Largely forgotten today, Albert Galloway Keller was one of the foremost sociologists of his time. A brilliant scholar and a staunch disciple of William Graham Sumner, Keller spent his entire academic career at Yale, first as a student and then as professor of the Science of Society, the chair formerly held by his mentor. The main coordinates of Keller's sociology are to be found in his major work, Societal Evolution (1915), where he sought to apply Charles Darwin's mechanism of variation, selection, and transmission to Sumner's general scheme. Although Keller gave priority to social variables, his evolutionary sociology retained many elements of the typically Progressive Era preoccupations with heredity and the biological quality of individuals. The aim of this paper is to examine in some detail Keller's views on eugenics and related issues, and to assess whether and to what extent these biologically deterministic elements played a role in his Darwinian approach to institutional change.

I. INTRODUCTION

Albeit largely forgotten today, Albert Galloway Keller (1874–1956) was one of the foremost sociologists of his time. A brilliant scholar and a staunch disciple of William Graham Sumner, Keller spent his entire academic career at Yale, first as a student and then as professor of the Science of Society, the chair formerly held by his mentor.¹

Luca Fiorito: University of Palermo. Valentina Erasmo: University of Turin. We wish to thank two unknown referees for their helpful comments on an earlier draft of this paper. Email: valentina.erasmo@unito.it.

¹ Born in Springfield, Ohio, but raised in Connecticut, Keller entered Yale College in 1892 and immediately fell under the influence of Sumner. Keller proved to be an exceptional student. He was elected to Phi Beta

ISSN 1053-8372 print; ISSN 1469-9656 online/24/03000380-398 © The Author(s), 2024. Published by Cambridge University Press on behalf of History of Economics Society.
doi:10.1017/S1053837224000038

After Sumner's death in 1909, Keller devoted himself to the completion of the projected *Science of Society*—a monumental enterprise that eventually appeared in print as a coauthored four-volume series (Sumner and Keller 1927). As a writer, Keller was as productive as he was eclectic. In addition to sociology properly conceived, he published on ethnography (1903a), anthropology (1925), labor statistics (1899, 1900a), colonial policy (1908a), economic geography (Gregory, Keller, and Bishop 1910; Keller and Bishop 1912), and philosophy of law (1919). The main coordinates of Keller's sociology are to be found in his major work, *Societal Evolution* (1915), where he sought to apply Charles Darwin's mechanism of variation, selection, and transmission to Sumner's general scheme. The culturally formed folkways that govern every aspect of group life, he argued, are subject to a process of selection in which only those promoting social welfare will persist and become established as mores and institutions. The volume was well received, and virtually all reviewers expressed vivid appreciation for Keller's "elaborate exposition of basic evolution-concepts applied to societal development" (Talbert 1915, p. 1014). In this connection, a contemporary interpreter, Geoffrey Hodgson (2004, p. 81), has pointed out some similarities between Keller's Darwinian inspiration and Thorstein Veblen's institutionalism.

Keller's understanding of social institutions as units of selection and replication has received some attention in the literature. According to Paul Crook (1994, p. 181), "Keller anticipated modern sociobiology by constructing a rudimentary gene-cultural mode of evolution"—an opinion more recently shared by other interpreters (Turner, Maryanski, and Giesen 1997, p. 23), who enroll Keller among the forerunners of "modern coevolutionary theory's emphasis on cultural symbols and memes." In the same vein, William H. Durham (1991, p. 554) found parallels between Keller's sociology and the "blind variation and selective retention" models first introduced by the psychologist Donald T. Campbell (1965). All these accounts, pertinent as they are, remain nonetheless silent on a crucial aspect of Keller's contribution: his overt support for eugenics and eugenic practices.² Keller's first major essay was an enthusiastic appraisal of Francis Galton's program for "race betterment as a national policy" (1908b, p. 151), and his eugenic views were quoted regularly in the national press (New York Times 1908a and 1908b). It is, then, only partially true that Keller, as asserted by Stephen K. Sanderson (2018, pp. 63–64; emphases in original), was among those who "used Darwinian thinking to develop theories of *social* selection, not *natural* [i.e., biological] selection." Keller certainly gave priority to social variables, but his evolutionary sociology retained many elements of the typically Progressive Era preoccupations with heredity and the biological quality of individuals (Leonard 2016). The aim of this paper is to examine in some detail Keller's views on eugenics and related issues, and to assess whether and to what extent these biologically deterministic elements played a role in his Darwinian approach to institutional change.

Kappa and after graduating in 1896 continued to study with Sumner as a graduate student in sociology, receiving his PhD in 1899. The very same year, Sumner secured a place for him on Yale's faculty. Keller was promoted to professor in 1907 and remained at Yale for the rest of his career, continuing Sumner's tradition in what he called the "inductive" approach to sociology (Keller 1913).

² A notable exception is Agner Fog (1999, p. 24), who describes Keller as an "adherent of eugenics."

II. YALE AND THE EARLY YEARS

During the Progressive Era eugenics attracted considerable support from respected scholars, reformers, and educated elites as a scientifically grounded attempt at large-scale social engineering. In commenting on the popularity of eugenics among university circles, Hamilton Cravens (1988, p. 53) observed: “Eugenics rocketed through academia, becoming an institution virtually overnight. By 1914, some forty-four major institutions offered eugenic instruction. Within a decade, the number would swell to hundreds, reaching some 20,000 students annually.” If it is true that Harvard was more central to American eugenics than any other university (Cohen 2016), Yale was only slightly less influential. In this connection, suffice it to say that three of the first seven presidents of the American Eugenics Society came from Yale—the foremost economist Irving Fisher (1922 to 1926), sociologist Henry Pratt Fairchild (1929 to 1931), and geographer Ellsworth Huntington (1934 to 1938).³ Henry Farnam, who served as president of the American Economic Association in 1911, was another Yale figure who more than flirted with eugenic ideas (Farnam 1908; Leonard 2016) and who was involved with Fisher in the activities of the eugenics-oriented Life Extension Institute. These men, and others who won’t be mentioned here, were personally connected, and all of them adopted eugenic arguments in their discussion of racial distinctions, social degeneration, and immigration restriction.⁴ Keller was part of this network. He knew Fisher well and Fisher referred to Keller’s works in his survey of eugenic literature for the National Conservation Commission (1909). Keller was a personal friend of Fairchild, and in the preface of *Societal Evolution* (1915 pp. viii–ix) he thanked him for his “especially enlightening criticisms and suggestions.”⁵ Keller also worked closely with Huntington and contributed to the geographic offering at Yale as one of the three co-teachers of the course on Physical and Commercial Geography (Martin 1973). In addition, it is significant that Keller’s early efforts in support of eugenics all appeared in the *Yale Review*, which included among its editors both Farnam and Fisher.

³ Fairchild had received a PhD from Yale in 1909, where he remained as professor of economics and sociology until 1918. At the time of his presidency of the American Eugenics Society, he had moved to New York University.

⁴ For a discussion of Fisher’s, Fairchild’s, and Huntington’s eugenic thinking, see Cot (2005), Hodgson (1991), and Lavery (2022), respectively. Other students of Sumner who flirted with eugenics are Maurice Parmelee, Arthur James Todd, and James E. Cutler. Parmelee wrote *The Science of Human Behavior* (1913) while he was at the University of Missouri, which also served as a text for his course on biological sociology, involving the topics of heredity, eugenics, and social evolution. In “Sterilization and Criminal Heredity” (1914), Todd challenged the eugenicists’ claims as to the heritable nature of criminality, but he nonetheless supported sterilization of those whose criminality showed them likely to be unfit parents. Cutler never publicly supported eugenics in his writings, but his name appears in Margaret Sanger’s 1925 list of members of the American Eugenics Society (Eugenics Watch 2005).

⁵ Fairchild reciprocated and in his *Outline of Applied Sociology* (1916, p. viii), he acknowledged the “suggestions and criticisms of Professor Albert G. Keller ... to whom I hereby extend my hearty thanks.” In a later publication, however, Fairchild lamented the neglect by Sumner and Keller of the economic element in the establishment and consolidation of folkways. Referring to the *Science of Society* (Sumner and Keller 1927), Fairchild stated: “How completely their treatment ignores modern economic relationships is revealed by the fact that this index lacks not only business, but such related words as ‘corporation,’ ‘bond,’ ‘stock,’ and ‘profits.’ Is not a corporation bond just as truly a sociological reality as a kinship bond? Is a certificate of stock any less of a sociological document than a marriage certificate?” (Fairchild 1950, p. 97).

The few attempts to place Keller within the broader context of Progressive Era social science (Barnes 1948; Odum 1951; Cravens 1971; Bannister 1987) include him among the prominent members of the second generation of American sociologists—that of Charles H. Cooley, Charles A. Ellwood, Edward C. Hayes, Edward A. Ross, and William I. Thomas, just to name a few. Yet, in spite of his notoriety, Keller's interactions with his contemporaries were minimal, if not completely absent. Throughout his career he had no relevant academic exchange with any of his fellow sociologists, and his works were only passingly reviewed in the academic press and generally by minor figures in the field.⁶ “Keller would have nothing to do with sociology or the American sociological Society,” notes Howard W. Odum in this regard, and much of his “solitary efforts” were devoted to “seeing that Sumner's contributions were preserved and published with an incomparable loyalty and fidelity to Sumner, both personally and professionally” (Odum 1951, p. 117). Keller's extraneity with respect to American sociology may have been due to his own personal and academic idiosyncrasies, but also, and more plausibly, to the fact that his close intellectual association with Sumner earned him the same kind of professional ostracism that had been reserved to his mentor. The latter view is somehow supported by the evidence that Keller came immediately to be seen as the most authoritative interpreter—or even the only exegete—of Sumner's work. In this connection, a founding father of the discipline in America, Albion Small (1916, p. 732n3), wrote (not without a touch of irony) that “it is hoped that Keller will be able to interpret [Sumner] in such a way that students of the history of sociology a century hence will see him in a different perspective from that in which he appeared to his contemporaries.”⁷ Albeit the most conspicuous, however, Sumner was not the only important formative influence on Keller's thought. Since his very early essays, and this is what mostly concerns us here, Keller revealed a keen admiration for Francis Galton and his eugenics, the science that he had officially launched in 1893.

The first traces of Keller's biological determinism surface in his early discussion of imperialism and the so-called native question, the problems faced by an expanding nation in dealing with the conquered populations. Despite his vigorous critique of some contemporary colonial experiences, such as Italy's (1900b) and France's (1901), Keller favored colonial policies that expanded Western systems of labor and commerce to the “lower races,” though based on a coercive paternalism that left little room for individual rights. “The natives are grown-up children and must be so treated,” Keller sentenced (1903b, p. 264).⁸ For the Anglo-Saxon settlers in the tropics, the main problem with them was that no inducements to uncoerced labor had any attraction “except those which the Europeans were unwilling to give” (p. 266). Natural indolence and “lack of foresight” soon produced widespread vagabondage, so that “the wage-system was given

⁶ Research at Keller's papers at the Yale Archives has revealed no significant correspondence between Keller and any of the major sociologists of the time.

⁷ On his part, Keller showed little appreciation for Small, both as a man and as a scholar. “He is a professor at Chicago and is an extremely windy man,” Keller wrote an acquaintance in 1915. “He likes to balance other people's ideas and give smart evaluations of them” (Keller to Julius C. Peter, March 8, 1915, Albert G. Keller Papers, Manuscripts & Archives, Yale University Library; box 10, folder 400). On Small's sociology and its place in Progressive Era social science, see Chassagnon and Vallet (2019) and Rocca and Vallet (2022).

⁸ The quintessentially progressive economist Richard T. Ely (1898, p. 781) made a similar claim: “Negroes are for the most part grownup children, and should be treated as such.” We thank an anonymous referee for pointing out to us this quotation.

no chance" (p. 267). It is then evident, he ventured (p. 268), that "slavery has been ... the first and thus far the best means of developing the tropics." Where individuals are not responsive to economic incentives, compulsion becomes necessary, for "the exigencies of trade do not allow of waiting for the backwood native to develop into a modern European." This would be a long wait, Keller continued, and "the suspicion enters the mind of one who has studied the lower races of the tropics that, so far as they are concerned, it can never be."⁹

Ultimately, Keller adhered to the commonly held late nineteenth-century view that all "primitive" or "savage" races around the world were doomed sooner or later to extinction in the face of a superior European stock. As he put it:

the most backward races seem destined to succumb to the pressure of competition with the higher. Such has been, and is, the order of nature; it is presumptuous to imagine that it can be much changed by the feeble, intermittent, often aimless and mutually neutralizing efforts of men. There will some time be no place on earth for the typical Indian, Australian, and Papuan except the beggarly "reservations" (or the ethnological exhibit), unless some Utopian scheme for "raising" them shall be invented; instinctively the race-right to exist and propagate is coming more and more to be regarded as correlative with the disposition to work for and not to hinder the progress of civilization. (1903b, pp. 272–273)

As to whether education can succeed in uplifting the natives to the level of the Europeans from virtual extinction, Keller did not take a definite position. He did assert that "education should strive to make of the native ... a useful economic factor" (1903b, p. 273), but in the same passage he specified that this would save them only "temporarily" from "virtual extinction."

Interestingly, Keller returned to the effects of education in 1907, in a brief note where he contrasted the recently published views of Lester Ward (1906) with those of Galton. Both men, he noted, hold that the "race" is to be improved by its great men or "geniuses." The difference is that whereas Galton would breed from a selected elite so to accumulate hereditary high qualities, and is, therefore, "oligocentric" in his attitude, Ward is "egalitarian," in the sense that he believes in human equality and puts stress on the extension of educational opportunities. This time Keller's stance was unequivocal. He was willing to recognize the importance of luck, or privilege, to the life of an individual, yet he considered several reasons that make it "scarcely possible to minimize the influence of heredity" (1907, p. 195). First, he explained, anyone who still admits the inheritance of acquired characters could not accept Ward's position.

⁹ Similar remarks appear also in Keller (1904 and 1905). On the issue of colonialism, Keller parted company with his mentor, Sumner, who served as vice-president of the Anti-Imperialist League in 1899, and saw American colonial expansionism as a system of extermination, exploitation, and oppression. See Sumner ([1899] 1965). In 1908 Keller published a textbook, *Colonization, A Study of the Founding of New Societies* (Keller 1908a). The volume provided a chapter-by-chapter historical survey of Portuguese, Spanish, Dutch, Italian, and German colonial activities and practices. Keller deliberately excluded the British experience as well as the recent episodes of the Spanish-American and Philippine-American wars from his analysis on the ground that it would have "intolerably lengthened his task" (1908a, p. x). This time Keller clarified that the book's intent was not to justify colonialism but to provide a comparative discussion of the various methods that colonial powers have used to administer their dependencies.

Second, according to Keller (p. 196), Ward himself could deny that many of the opportunities he considers “may have been attracted to the neighborhood of the budding genius by reason of his being so.” Third, and let us quote Keller at length here, he considered it hard for the trained anthropologist to share the belief in the equality of the various races. As an example, he questioned the faith in “potentiality of genius of the English or French type among Papuans and Fijians,” so that “if the latter were caught young and loftily ‘nurtured’ there might arise a Beethoven with a simian facial angle or a Goethe with ‘forehead villainous low’” (1907, p. 196). Finally, Keller observed that over the last decades educational opportunities had been assured to almost every segment of society, and this should soon result, if Ward is right, in a “crop” of geniuses. Evidence does not point that way, Keller concluded, but rather to a “dissoluteness of social and ethical virtues, consequent upon too much freedom and too little discipline” (p. 196).

Keller expanded on these themes in a paper significantly titled “Eugenics, the Science of Rearing Human Thoroughbreds” (1908b) and in two subsequent contributions (1910 and 1914). Here he continued in his passionate endorsement of eugenics, devoting much space to a detailed discussion of August Weismann’s rejection of the inheritance of acquired characteristics.¹⁰ By embracing Weismannism, as he called it, Keller could challenge the environmental reform impulse of Neo-Lamarckism and infuse his eugenics with a heavy dose of determinism.¹¹ This time, however, Keller also called attention to a difficulty inherent to the reform program advocated by Galton. With respect to the animal breeder, he wrote, the eugenists must face a completely different set of difficulties — “[n]o agency makes it its business to guarantee apt mating; no stern hand holds the issues of life and death, steadily eliminating the less fit; no directing mind works its material toward a type or ideal of development” (1908b, p. 129). Keller admitted that over the years several laws had been designed to control human mating and, as in the case of forced sterilization, the right to reproduce of certain individuals. This, however, is but the “crudest form of control,” and one that is largely ineffective. A more efficient kind of authority, he suggested, can be exercised through “custom, precedent, and prejudice,” all factors whose action is far more “penetrating and intimate” than any formal law can ever be. It is clear enough to the sociologist, Keller affirmed, that if eugenics is to be supported by feeling, apart from intellect, it must be absorbed into the folkways of a group — i.e., into that “body of customs and habitudes which come to be lived up to most instinctively” (p. 151). Keller will come back to this specific point in his *Societal Evolution*.

¹⁰ Keller was eager to throw over his own opinions the authority of Darwin, who, in the *Descent of Man* (Darwin 1871, p. 113, quoted in Keller 1908b, p. 128), had stated that “[e]xcepting in the case of man himself, hardly any one is so ignorant as to allow his worst animals to breed.” The problem, Keller urged (p. 129), is even more serious since men not only allow their worst elements to reproduce but permit “the progeny of these to increase in numbers totally in disproportion to those shown by the offspring of the fittest.”

¹¹ As Keller (1908b, p. 138) put it in a salient passage: “[t]hus the composition of the hereditary elements, or germ-plasm, is regarded as of surpassing importance for the character and destiny of the individual; environment is taken to be a factor competent only to accelerate or retard the working-out of heredity. Its real efficacy lies in the fact that it conditions the activity of selection, i.e. those survive who can adapt themselves to the local type of environment.”

III. SOCIETAL EVOLUTION

Keller's magnum opus, *Societal Evolution*, appeared in 1915. In the opening pages of the volume, the author made crystal clear his inspirational principle: "I have come to believe that the Darwinian factors of variation, selection, transmission, and adaptation are active in the life of societies as in that of organisms" (Keller 1915, p. vi). This plain statement has led some interpreters (Hofstadter 1944; Bannister 1979; Hodgson 2004) to enroll Keller among the social Darwinists of the period—an association that Keller would have not fully appreciated. As he saw it, "social Darwinism" (he used the exact term) was a vague term encompassing an indiscriminate range of social approaches with often little resemblance to Darwin's original theories. Keller mentioned John B. Haycraft, David G. Ritchie, Benjamin Kidd, and Walter Bagehot as authors who had explored in distinct ways the nexus between evolution and the study of society.¹² While he found these contributions "useful and admirable," he could not see that "any of these has succeeded in lending to social science anything akin to the practical benefits enjoyed by natural science as the result of the development of Darwinism" (p. 11). Keller's discontent toward Herbert Spencer, whom he considered an "untrustworthy guide" (p. 8) was argued in a more explicit manner. To Keller's eyes, Spencer's contention that societies evolve from incoherent homogeneity to coherent heterogeneity was just pseudo-science—an intrinsically normative judgment that has led many students to "identify evolution with progress" (p. 8). Darwin only spoke of adaptation, Keller objected, "a basic idea which could be defined objectively, as progress cannot" (p. 9). What is necessary, then, is to extend Darwinian evolution into the social world without sacrificing its original significance. To do so, one must go beyond the simple "reasoning by analogy" so typical of those contemporary writers who have felt under the "spell of Spencer." Societal evolution is real evolution and the Darwinian factors of variation, selection, and transmission "have their societal mode as they occur in the life of society, just as they have their organic mode when they appear in the life of organisms" (pp. 15–16).

A main innovation in Keller's own brand of social Darwinism was the explicit recognition that the units of replication or selection could be social entities such as customs and institutions, rather than individuals or a group of individuals alone (Hofstadter 1944; Bannister 1987; Hodgson 2004). The relative stability and durability of what Sumner had called "folkways" make them key objects of evolutionary selection in the socio-economic realm. These folkways, Keller wrote, constitute "the connecting idea between organic and societal evolution" (p. 30), in the sense that they are "a natural and essential societal form" that is "analogous to the germ or embryo" (p. 31). Keller followed his mentor, almost verbatim, in distinguishing between folkways and mores. Folkways are those habits and customs that represent the "lowest terms" or "matrix of the

¹² As many interpreters have pointed out (Hofstadter 1944; Bannister 1979; Hawkins 1997; Hodgson 2004; Leonard 2005, 2009), during the Progressive Era natural evolutionary thought was plural and contested on fundamental questions: e.g., (1) whether environment affected heredity, (2) whether natural selection impelled social change, (3) whether the individual or the group was the unit of selection, (4) whether fitness consisted solely of reproductive success, (5) whether evolution implied progress or merely change, and (6) whether evolution was gradual or nature could make leaps. Our discussion below shows that Keller, with the exception of point (4), took a position on each of these matters.

institutions.” They are mostly “made unconsciously,” and once established they form a consistent system of norms developed under the “stimulus of need” (p. 51). When certain folkways become the object of universal group approval and are taken to be the “embodiment of its prosperity policy” (p. 51), they become mores. As in organic life, variation exists among the folkways and mores of individuals and social aggregates. Here, somehow ambiguously, Keller established a nexus between social variation and organic changes in the brain. “It must not be forgotten,” he affirmed (p. 51), that “[variation in the folkways] probably go back to physical change in the individual brain, and so root in organic processes and organic evolution.” This correspondence has important consequences for the social scientist— “[i]f races cannot yet be classified as a result of the study of the cerebrum itself, they can be classified on the criterion of the activity of that organ, as displayed in the sum of materialized or realized ideas” (p. 19). As to the sources of variation, Keller’s discussion is somehow sketchy and superficial. Spontaneous or unconscious variation, he maintained (p. 44), occurs in a “random and inconsequent” fashion and generally implies only “slight departures” from the prevailing mores. Conscious variation, or experimentation, is instead a process based on law and scientific knowledge, but it is often as “clumsy and floundering” (p. 47) as its spontaneous counterpart. In the end, Keller wrote, “the fact of variation in the folkways is all that needs to be established here” (p. 48).

Selection acts upon variations and occurs in one of two ways: it is either “automatic” or “rational.” Automatic selection is a gradual, mostly unconscious, process whereby folkways are crystallized into mores, before being formalized into formal rules. Following Sumner, Keller used the normative regulation of marriage as an example of automatic institutionalization. By contrast, rational selection is always conscious, deliberate, and “performed in the light of knowledge” (p. 96). Keller, however, assumed that rational and irrational elements always coexisted in social processes. Even enlightened rational selection is “precarious” and “full of error,” he stated (p. 98), for “where the human mind comes in there are sure to be wrong valuations due to imperfect knowledge and to bias of various kinds.” Therefore, “it cannot be asserted that rational selection prevails in any comprehensive degree throughout the evolution of even the most civilized societies” (p. 114). The question now arises as to what elements of society engage, consciously and unconsciously, in the selection of folkways and mores. In this regard Keller followed Sumner again and distinguished between the “classes,” by which he meant the higher social strata, and the “masses.” The latter are the traditional and conservative core of society, and thus represent an inertial force in society, while the classes are the source of variation and change. As Sumner (1906, p. 47, quoted in Keller 1931, p. 97) had put it in his *Folkways*: “[i]t is the classes who produce variation; it is the masses who carry forward the traditional mores.” Like his mentor, Keller held that the masses are the main problem for the construction of an authentic liberal democracy.¹³ Exploitation of class feelings of millions of ignorant voters by “demagogue” politicians would set the masses against the wealthier classes and exacerbate antagonistic feelings, threatening the very functioning of democracy. This line of argument, however, should not be carried too far. Although Keller remained unconvinced the masses possess the deliberative abilities needed to yield an effective democratic government, he never

¹³ For a discussion of Sumner’s views on liberal democracy, see Byrne (2010).

denied the virtues of an egalitarian state. Nowhere did he imply that the masses must passively accept the decisions imposed by the dominant classes. As Keller wrote in the second edition of *Societal Evolution*, “the elimination of persistence of the mores is determined by the action of men in masses” (1931, p. 141). Once the higher classes have selected certain social variations, it is only through the masses’ consensus that these become incorporated into the prevailing folkways and mores of society. “In short perspective,” Keller elaborated (1931, p. 72), “the lodgment of power in a few individuals, or even in one autocrat, seems to attain an efficiency toward which a democracy vainly strains.” And yet, he concluded, “to go back to a monarchical system would be to return to a superseded societal form.”

At this point, we find in Keller a further element of ambiguity. On the one hand, he claimed that the masses lack the necessary social capital, in modern jargon, to become innovators. In his words: “the dominating class has a better chance than the rest to get knowledge upon which to base a rational selection. It is better educated” (1931, p. 116). On the other hand, as noted by Sanderson (2007, p. 90), Keller’s insisted reference to the “inferior” intelligence or “endowment” of the lower social strata seems to imply a conviction that the masses lack not only the knowledge but also the mental power to lead the process of change. This interpretation is supported by what Keller had written in his earlier eugenic essays, where he accepted, with some mild caution, the eugenicists’ claim of a general correspondence between an individual’s social status and his biological superiority:

It is assumed that the best are, physically, the healthiest; and otherwise are those who have, through their own success in life, or in the retaining of a station bequeathed to them, demonstrated abilities of mind, temperament, or character. Even the degenerate offspring of the fit may have a (transmissible) spark of fitness in them. When the statement is made that society is breeding from inferior stock, the proof always includes a comparison of the size of families of low-class laborers and of, say, the professional classes. Such a comparison is based upon the social function discharged, and rests upon the tacit or explicit assumption that ability will, as a rule, rise to its proper level of recognition. Anyone would admit at once that such criteria of social fitness must work injustice to some, but they are believed, this notwithstanding, to cover the majority of cases; and that is all that can be reasonably demanded. (1908b, p. 145)

The dominant classes also play a crucial role in the transmission of folkways and mores. Once selection has been made, Keller asserted, the successful variations are transmitted to future generations by means of inculcation and imitation.¹⁴ Inculcation includes education broadly conceived, and represents the “inmixture of the human mind” (1915, p. 218), acting consciously and with some end in view. Imitation, instead, is the “automatic” process through which the masses adopt the mores of the leading groups. Inculcation and imitation, Keller (p. 235) noted, are hardly distinguishable — “inculcation in all its forms rests ultimately upon imitation, which is the dominant means of transmission of the mores.” This makes transmission a top-down, inherently hierarchical, process where the masses play only a subordinate role as receptors of

¹⁴ Keller’s discussion of transmission is somehow disappointing. He did not contemplate the possibility of failures in the transmission of the “fit” folkways, or consider whether the reproductive success of “unfit” folkways can lead to their consolidation as mores in spite of their being less adjusted to the environment.

customs and mores in contrast to those who have “control over the policy of the society” (p. 116).¹⁵

Keller's exposition of societal evolution in Darwinian terms is thus complete. Evolution, he wrote in a later contribution, is “the development of form out of form, in a connected series, with survival of the fitter forms in adjustment to environment” (1922, p. 126). In the social field, variation in the mores offers different degrees of “fitness,” and conflict deriving from the struggle for self-maintenance results in the social selection of those mores that promote better adaptation. These variations are then transmitted to future generations through education and imitation. Keller added two Important (and closely related) qualifications to his social evolutionism. First, he recognized that path dependence in the establishment of mores can lead to specific instances of institutional persistence and structural inertia (Fiorito and Vatiello 2023). Social selection, he speculated (1915, p. 49), cannot keep pace with the “production of that upon which it is to operate,” and so “the unfittest variations are not eliminated with the expedition characteristic in nature.” This is due to the fact that when mores become crystallized into institutions, they produce numerous “inferences” or “corollaries,” which cannot always be changed or eliminated, along with their “supporting principle.” Second, Keller contended that efficient adaptation occurs only with respect to the mores of self-maintenance, and this is because the “nearer the mores come to the struggle for existence [the] more vivid is the demonstration of their expediency or in expediency” (p. 132). Here we find Keller advancing a sort of “cultural lag” à la Ogburn (1922), according to which “secondary” societal structures adjust to the maintenance mores, usually with a certain delay, but they are not themselves direct adaptations to environmental conditions. Keller made his point with a telling metaphor: “the code of the maintenance organization is the dominant chord vibrating to the tone of the struggle with nature and fellow-man; the rest of the mores are, as it were, overtones of that chord” (1915, p. 160).

IV. KELLER ON EUGENICS

Keller did not consider societal and natural, i.e., biological, evolution as completely unrelated. Natural selection, he said, “develops the man-animal with specialized mental adaptability” (1915, p. 68), and is more intense in those primitive groups living in direct contact with nature. As civilization advances, the environment becomes increasingly artificial and the folkways and mores emerging from the process of adaptation operate to “exempt man from natural forms of selection.” This is done through the action of societal selection, which “spares those who would not be spared under nature” (p. 68)—a process

¹⁵ Keller (1915, p. 210) also specified that although his emphasis was on social variables, he was not implying that “heredity does not enter into the transmission of the folkways at all.” For instance, he believed that must have differed in the degree of their submission to men, and this was due to innate differences of temperament, “which would doubtless be transmissible through the germplasm.” Under the conditions prevailing in an early stage of civilization, the “submissive type” of woman turned out to be best suited to the environment, and so the “qualities of patience and endurance by which the female sex is characterized would become distinctions favorable to persistence.” Similar views on the evolution of female psychological traits can be found in Campbell (1891) and Ellis (1894).

Keller called “counterselection.” As he clarified, “[i]t is possible to take one point of view according to which, starting with natural selection, we seem to proceed by inevitable transitions straight to its opposite.” Drawing upon the literature of his time, mostly from the work of the German eugenicist Wilhelm Schallmayer (1903), Keller listed several specific instances of counterselection. First, he joined the chorus of those, like his Yale colleague Fisher, who opposed war because it selected for the unfit. With the advent of modern warfare and firearms, Keller wrote, the war had lost its original selective power, in which the weakest elements were eliminated, becoming an agent of counterselection: “[t]he best are exposed to danger, while the inferior do not see the enemy; and, even among the best, the superior man physically—the strongest, the fleetest—has little better chance of survival than his inferiors. All are ‘food for the bullets’” (p. 171). War is also counterselective in that it produces a large number of belated marriages, with a consequent shrinking of the family size among the fittest. To this Keller added that the soldier “is not infrequently demoralized for the rest of his life,” and that “his children are likely thereby to suffer some diminution of opportunity, or even some positive and vital harm” (p. 172).

Another important agency of counterselection was the modern industrial organization, which does not call for the “biologically fitter.” With the advent of scientific management and assembly line production, Keller speculated, the worker is reduced to a machine and “certain relatively low human activities become the object of selection” (1915, p. 173).¹⁶ Again, following Galton almost verbatim, Keller argued that the inheritance of wealth, combined with the rule of primogeniture, operated to “throw all the opportunities of early marriage, possession of a large family, and the like, in the way of the less fit” (p. 173). The development of therapeutics, hygiene, and the technique of nutrition were also seen as biologically wasteful—to the extent that “they rear up to the age of maturity and of procreation many who formerly fell early beneath the sweep of natural selection” (p. 174). Charity and poor relief were condemned for their “individualistic tendency of humanitarianism,” an approach that conceded no interest to society and acted against the “elimination of those who are losing in the conflict” (p. 175). Finally, to complete his compendium of dysgenic themes, Keller drew attention to the differential fertility of different social classes within the United States and expressed alarm that the individuals in whom society recognizes a “superior value” are reproducing at a lower rate than those who “have little more than their bodily strength to put into the social stock of power” (p. 186). This tendency, Keller predicted, means a slower growth of the “highly equipped” class, until its final disappearance by what, following the then popular trend, he called “race suicide.”

Keller’s overall appraisal of the consequences of counterselection reveals the typical ambivalence of much Progressive Era social science. Swinging like a pendulum, Keller first affirmed that man is an animal, subject to the laws of nature, and as such he “can never ignore biological qualities altogether, cut loose once and for all from the earth” (1915, p. 178). Accordingly, “[i]t would be dangerous indeed if societal selection were

¹⁶ The dysgenic effects of the increasing mechanization and the consequent depersonalization of labor had been brought into attention by Simon Patten as early as in 1885. “Every introduction of machinery which displaces skilled labor,” Patten warned (1885, p. 220), “increases the amount of the deficiencies which the laboring classes may possess without their being thereby overcome in the struggle for subsistence that the survival of the ignorant brings upon society.”

going to become unreservedly counterselective.” In a following passage, Keller (p. 182) changed tone and this time he pointed out that many of the counterselective factors he had discussed are inevitable “phenomena of societal evolution,” which represent “forms of adaptation” not necessarily harmful to society. The “sickly mature,” for instance, have often contributed to the strengthening and adjustment of the institutions of society, although by procreation they may have diminished its “biological soundness” (p. 190). Then again, he added a further (and equivocating) argument, in which he emphasized the efficiency of “automatic” selection based on the “self-interest of individuals and groups” as a check to the waste of superior heredity brought about by counterselection. In support of his position, Keller did not hesitate to cite with approval a report of an address given by William T. Sedgwick, a renowned MIT public health specialist, on December 21, 1923, at the annual meeting of the Association of Life Insurance Presidents.¹⁷ The report, which emblematically reveals the aberrations of eugenic thinking at the time, should be reproduced in its entirety:

There is a pretty deep significance in the idea presented by Prof. W. T. Sedgwick before the life insurance presidents, that it is much more important for society to save the man of 40, the trained wealth-producer, than to save babies. The professor does not, of course, oppose or deprecate efforts to reduce infant mortality, but he favors and exalts such community experimentation as will prolong the period of efficiency in human life, after efficiency has been proven. If babies are kept from dying, it is manifest enough to the economist that a fairly large proportion of those saved are congenitally inefficient; that the interference with the law of the survival of the fittest, justified as it is by all humanitarians, has disadvantages as well as advantages. It may and often does burden the future with incompetents to be supported or partly supported by the community or by individuals. As Professor Sedgwick says, the man of 40, skilled at his trade, a steady wage-earner, has passed the test of “survival of the fittest.” He is one of the fit who have survived. ... *The self-interest of the life insurance companies, enlisted to save the man of 40, may be of immense advantage to the human race.* (quoted in Keller 1915, pp. 189–190; emphasis added)

The pendulum finally stopped swinging and Keller found a compromise in the contention that all the counterselective factors he had considered are, “*in their extreme variations*” (1915, p. 192; emphasis added), a threat to individual and social well-being. The persistent growth of these agencies of adverse selection, he exhorted his readers, calls for “tirelessness in the acquisition of knowledge” and “unabated vigilance in the exercise of rational selection based upon it.” The dissemination of eugenics principles among society was part of this call for action.

In *Societal Evolution* Keller made plain that he did not intend to discuss in detail the merits of eugenics—as he had done in his earlier essays—but to deal with eugenics in the light of the limits of rational selection. As we have seen, Keller was skeptical concerning the possibility of implementing any consciously deliberate plan of social reform, and this was mainly because he considered the masses to be the most conservative segment of society—the one on which the inertia of existing customs and mores acts more

¹⁷ Together with Fisher and Keller, Sedgwick was among the officers of the Life Extension Institute. See Comfort (2012, p. 63).

overwhelmingly. Selection is thus made predominantly on an emotional, rather than cognitive, ground and this explains why history records only very few cases of preplanned mores and institutions. A positive program of popular eugenics faces the same kind of difficulties, Keller wrote, although he did not exclude the possibility of its partial realization. He was confident that eugenic legislation would be effective against the more “undeniable” phenomena of counterselection. For instance, specific measures prohibiting marriage licences for imbeciles, epileptics, and those of unsound minds could easily obtain general consent since “they are not so foreign to the feelings and prejudices of the masses as to be dead letter” (1915, p. 204). But when the legislator tries to go beyond these obvious cases, Keller warned, he encounters popular opposition. Recent laws about sterilization “horrify many sensible people,” and so do marriage hygiene prescriptions based on prenuptial medical examinations. These measures have an undisputable rational foundation, but they are disapproved because they are not consistent with the core of folkways and mores governing society. There is, however, a way to overcome this resistance:

If the reformers wish to do what can be done instead of dreaming about a world-beatification that has no prospect of occurring, there is yet another way to take hold of the issue. They may not be able to enlist the enthusiasm of the ordinary man for the welfare of the tenth or fifteenth generation from now; but if they can visualize for that man the fact that he is paying, here and now, out of his own fund for self-maintenance, for the support of those who should never have been born, they can touch him upon a very sensitive interest. (1915, p. 205)

A rational plan of “eugenic regulation” can achieve widespread support only if it comes to be perceived to be related to the “concrete interests of individuals and groups”—i.e., those interests that “touch most closely upon local spheres of self-maintenance and self-realization” (1915, p. 206).¹⁸

In his support of eugenics Keller was certainly a “man of his times,” but his distinct stance sets him apart from the bulk of his contemporaries in at least two crucial respects. First, nowhere in his writings did Keller establish a connection between notions of biological fitness that were common at the time and the belief that the state should intervene to improve working and social conditions. This is a fundamental difference with respect to the majority of the progressives who saw eugenics as an extension of government’s interference in social life. According to Keller any social innovation, including eugenics, must proceed automatically and with little possibility of human control, except for those cases in which “rational” selection happens to coincide with the favorable adaptation that would in any event be automatically selected by the

¹⁸ There is an interesting coincidence here. In 1915, the same year Keller published *Societal Evolution*, Fisher had made a similar discussion of eugenics along Sumnerian lines in an unpublished address on “Eugenics and Sociology,” given at the annual meeting of the American Genetic Association. Unfortunately there is no trace of this address among the Fisher Papers at the Yale archives, but a brief summary of its content was given by the eugenicist Paul Popenoe (1915, p. 393) in his report of the conference: “Professor Fisher discussed the mores, in their relation to eugenics, expressing a belief that the ideals of eugenics would come in some measure to be a substitute for the mores, as a criterion of morality and true value, when the race became more enlightened. At present, an action, or an institution or custom, is held to be desirable or undesirable, according as it does or does not agree with the folkways, the inherited, almost instinctive traditions of the race. In the future, people will rather ask, ‘Is its effect eugenic?’”

spontaneous process of societal evolution.¹⁹ This may explain why Keller appears to be more interested in the inculcation of eugenics principles than in delineating an effective eugenics program. He did endorse prohibiting marriage of “imbeciles,” but he otherwise demurred. In one of his early papers (1907, p. 197), he referred to the “nearly chimerical scheme of controlling human mating,” and in *Societal Evolution* (1915, p. 168) used the term “world-beatifiers” to describe those eugenicists heedless of the impediments to improving the race.²⁰ Keller also appears to be immune from the overt scientism that informed much of the reform impetus of those years. Like Galton, Keller (1915, pp. 299–210) imagined eugenics becoming some sort of “religious dogma,” but, he immediately specified, “by religion I mean ... an unreasoning fear of the unknown and supernatural, not a respect for the known and demonstrated.” A widespread acceptance of eugenics and its principles, he insisted in another place (1914, pp. 256–257), could not be gained through the authority of scientific evidence.²¹ In their enthusiasm to apply the scientific method, the eugenicists have failed to recognize that that “feeling—sentiment—apart from intellect shall be enlisted in the establishment of eugenics,” and that some motive “beyond and above reason” must sanction what “has been reasoned out in the threshing-over of the new idea,” before the latter can be crystallized into the mores of society.²² This, in turn, was reflected in Keller’s opposition to the technocratic rhetoric that had accompanied the professionalization of social science in America. When Keller lamented the “expert’s contempt for the intelligence of the average man” (1914, p. 124), and warned that reformers always “represent the interests of different sections of the society” (p. 125), he was attacking both the authority and the impartiality of those, among his colleagues, who had been proclaimed as judges of what is good for society.

V. LATER DEVELOPMENTS

In terms of intellectual work, Keller produced much less after 1915, and *Societal Evolution* remained his most influential work as a sociologist. Likewise, his interest in eugenics declined over the years. Keller published no further paper on the subject and, contrary to his Yale colleagues Fisher and Fairchild, he took no part in the movement that led to the founding of the American Eugenics Society in 1926. He did continue to drop passing comments on eugenics, but these reveal a growing skepticism toward its concrete application as a plan for reform. “The eugenicists seem to hope that people will come to mate or refrain from mating with the interests of future generations in mind,” wrote Keller (1922, pp. 148–149) in a later contribution, but “only the very enlightened

¹⁹ In arguing that mores cannot easily be changed through legislation, Keller (1915, p. 258) wrote in a telling passage: “If the same distaste were present to forbid non-eugenic unions which exists to prevent the eating of the flesh of cats, the aim of the eugenicists would be in large part attained.”

²⁰ We owe this quotation from Keller—and the general considerations that follow it—to an anonymous referee, whom we thank for her/his invaluable report.

²¹ “If any one thinks he can introduce a religion among the masses by the use of statistical tables or microscopic sections, together with conclusions based thereon, he is not rational enough to be talking about sociological subjects at all” (Keller 1915, p. 200).

²² Fisher (1921, p. 231) also expressed a firm belief in “Galton’s idea that eugenics must be a religion.” Unlike Keller, however, Fisher embraced Galton’s scientism and affirmed that we only have to wait for science “to affix its seal of approval” on this new religion. See Cot (2005).

few can be imagined as so doing.” Not just the masses but also the educated reformers act on their immediate interests, Keller continued, and by their own nature “interests are bound ... to be narrowly circumscribed.” The same skepticism surfaces in the pages of *The Science of Society*, his ponderous four-volume revision of Sumner’s unpublished manuscripts. As pointed out by some interpreters (e.g., Smith 1979a, 1979b), Keller’s renditions of his mentor’s work often “distorted” the original, notably adding a biological dimension that is only latent in Sumner’s sociology, so that each of the brief comments on eugenics can be safely attributed to Keller.²³ In the first volume, in a section devoted to the limits of rational social planning, we read:

Most of us are but little concerned in action that contemplates a distant or universal result; few people can take a deep intelligent interest in a social program, like that of eugenics, which aims at an improvement of the whole human race some centuries hence. The human tendency is to shrink such a program down to a proximate, immediate aim; to make it bear on the present situation and upon the local interest of the adherent. (Sumner and Keller 1927, p. 729)

The adjustment of a group’s mores to life-conditions, as the one required by a plan of eugenic reform, Keller concluded in the same passage, “is one of those matters that transcend the mental outfit and powers of most, if not of all men.” One point, however, should be emphasized. If Keller had lost much of his faith in the feasibility of eugenic planning, even one guided by an enlightened elite, he never repudiated the principles on which eugenics was grounded. In the *Science of Society*, after praising the socially useful individuals—“those demonstrated to be so by test”—he dismissed much of the talk about the natural right to life as largely “theoretical and occasional” (Sumner and Keller 1927, p. 613). He then asked rhetorically: “[e]ven if you can make the offspring of a low-class moron contribute some negligible service to society, is that better than to have denied procreation to his parents and thus to have spared the cost to the normal and fit?” (p. 615). Like Sumner, Keller saw inequality as essential to a working society, but, with respect to his mentor, he added a far more explicit biological twist to this contention. “Any general assumption of likeness,” he made clear (p. 616), “is a very perilous one to go on, as many failures in dealing with the ‘lower races’ have demonstrated.” Even within a single racial group or nationality, he insisted, “hereto unknown inequalities are being discovered all the time.” To sustain his claim, Keller invoked the authority of Galton, who, in *Hereditary Genius* (1869, pp. 14–15, quoted in Sumner and Keller 1927, p. 616), had written: “[i]t is in the most unqualified manner that I object to pretensions of natural equality. The experiences of the nursery, the school, the University, and of professional careers, are a chain of proofs to the contrary.” More than twenty years after

²³ The attribution is facilitated by the fact that virtually all of Keller’s additions to Sumner’s unfinished texts were printed in a smaller font. As to Sumner, he never explicitly discussed eugenics, although in a passing comment in *Folkways*, he hinted at the problem of the biological quality of future generations: “[a]ll other projects of reform and amelioration are trivial compared with the interests which lie in the propagation of the species, if those can be so treated as to breed out predispositions to evils of body and mind, and to breed in vigor of mind and body” (1906, p. 492). On the same page, however, Sumner opposed restrictive marriage policies based on biological doctrines on the ground that “those doctrines are too uncertain.” “So long as we do not know whether acquired modifications are inheritable or not,” he explained, “we are not prepared to elaborate a policy of marriage which can be dogmatically taught or civilly enforced.”

his early attack on Ward, we find again Keller rejecting the idea that the mind at birth is a *tabula rasa* whose development is determined by environmental influence.

VI. CONCLUSION

In his preface to Keller's *Festschrift* for his thirtieth year at Yale, the anthropologist George P. Murdock (1937) observed that since evolution is a process observable in both the social and natural realms, the term has a "perfectly legitimate place" in social science, and its use in no way commits the sociologist to "Social Darwinism" or other "biological implications." The greatest merit of Keller, Murdock continued, was that of having kept the social and biological levels of evolution and adaptation "rigidly distinct." This line of interpretation—shared, as we have seen, by some contemporary scholars—is at least misleading. To be sure, Keller emphasized that biological and societal evolution work on different levels, with the latter operating between groups rather than individuals, and favoring social, rather than biological, fitness. At the same time, however, our discussion has shown that the two levels were not always kept separate and that biological considerations did contaminate Keller's views on social evolution. First, we have shown that Keller linked variation in the folkways and mores with organic modifications in the brain, and with organic evolution in general. Second, and more crucially, Keller saw societal evolution as inherently counterevolutionary, i.e., allowing the survival and reproduction of the biologically unfit. The social scientist must pay attention to the nature processes, he cautioned (1915, p. 179), and the eugenicists "are performing for us the great service of insisting upon the presence of limits beyond which it is unsafe to allow variations in the mores to go." Eugenics was then the obvious antidote to counterselection and racial degeneration. Yet, Keller's support of eugenics was not uncritical. As any plan of rational social change, eugenic reform would have to overcome the inertia of those deep-seated mores and institutions regulating society self-reproduction. This was a task to be left to the autonomous forces of society—and this is what makes Keller's advocacy of eugenics virtually unique at his time. Keller considered any policy of social engineering both as detrimental and ineffective. It is true that he assigned a prominent role to the "well equipped" classes in the generation of new ideas and customs, but he never followed the then current trend of considering technical expertise as a substitute for the democratic mechanism. Albeit "illiberal" in his endorsement of Galton's eugenics, Keller remained loyal to Sumner's liberalism. His advocacy of eugenics shows no trace of the technocratic paternalism so typical of those years. To the coercion imposed by the administrative state, Keller preferred the gradual and autonomously evolving pressure of folkways and mores. In any plan of social reform, including eugenics, he believed that "the operation of the big, impersonal, automatically working forces always acts truer results than do the feeble powers of the human mind" (1922, p. 147).

COMPETING INTERESTS

The author declares no competing interests exist.

REFERENCES

- Bannister, Robert C. 1979. *Social Darwinism: Science and Myth in Anglo-American Social Thought*. Philadelphia: Temple University Press.
- . 1987. *Sociology and Scientism: The American Quest for Objectivity, 1880–1940*. Chapel Hill: University of North Carolina Press.
- Barnes, H. Elmer. 1948. *An Introduction to the History of Sociology*. Chicago: University of Chicago Press.
- Byrne, William F. 2010. “William Graham Sumner and the Problem of Liberal Democracy.” *Review of Politics* 72 (4): 571–597.
- Campbell, Donald T. 1965. “Variation and Selective Retention in Socio-cultural Evolution.” In Herbert R. Barringer, George I. Blanksten, and Raymond W. Mack, eds., *Social Change in Developing Areas: A Reinterpretation of Evolutionary Theory*. Cambridge, MA: Schenkman, pp. 19–49.
- Campbell, Harry. 1891. *Differences in the Nervous Organization of Man and Woman: Psychological and Pathological*. London: H. K. Lewis.
- Chassagnon, Virgile, and Guillaume Vallet. 2019. “Albion W. Small’s Neglected Progressive Views: Reducing Inequalities for a Reasonable Capitalism.” *Journal of the History of Economic Thought* 41 (1): 77–98.
- Cohen, Adam S. 2016. “Harvard’s Eugenics Era. When Academics Embraced Scientific Racism, Immigration Restrictions, and the Suppression of ‘the Unfit.’” *Harvard Magazine* (March/April). <https://harvardmagazine.com/2016/03/harvards-eugenics-era>. Accessed February 22, 2024.
- Comfort, Nathaniel. 2012. *The Science of Human Perfection: How Genes Became the Heart of American Medicine*. Baltimore: Johns Hopkins University Press.
- Cot, Annie L. 2005. “‘Breed out the Unfit and Breed in the Fit’: Irving Fisher, Economics, and the Science of Heredity.” *American Journal of Economics and Sociology* 64 (3): 793–826.
- Cravens, Hamilton. 1971. “The Abandonment of Evolutionary Social Theory in America: The Impact of Academic Professionalization upon American Sociological Theory, 1890–1920.” *American Studies* 12 (2): 5–20.
- . 1988. *The Triumph of Evolution: The Heredity-Environment Controversy, 1900–1941*. Baltimore: Johns Hopkins University Press.
- Crook, Paul. 1994. *Darwinism, War, and History: The Debate over the Biology of War from the “Origin of Species” to the First World War*. Cambridge: Cambridge University Press.
- Darwin, Charles R. 1871. *The Descent of Man, and Selection in Relation to Sex*. Two volumes. London: John Murray.
- Durham, William H. 1991. *Coevolution: Genes, Culture, and Human Diversity*. Stanford: Stanford University Press.
- Ely, Richard T. 1898. “Fraternalism vs. Paternalism in Government.” *Century* 55 (5): 780–784.
- Ellis, Havelock. 1894. *Man and Woman: A Study of Human Secondary Sexual Characters*. London: Scott.
- Fairchild, Henry P. 1916. *Outline of Applied Sociology*. New York: Macmillan.
- . *Versus: Reflections of a Sociologist*. New York: Philosophical Library.
- Farnam, Henry W. 1908. “Some Fundamental Distinctions in Labor Legislation.” *American Economic Association Quarterly* 10 (1): 105–118.
- Fiorito, Luca, and Massimiliano Vatterio. 2023. “Does Brick Size Matter? Albert G. Keller on Another QWERTY Story.” *Economic Letters* 223 (February): article 110974. <https://www.sciencedirect.com/science/article/pii/S0165176522004487?via%3Dihub>. Accessed February 22, 2024.
- Fisher, Irving. 1909. *Report on National Vitality: Its Wastes and Conservation*. Prepared for the National Conservation Commission. Washington: Government Printing Office.
- . 1921. “Impending Problems of Eugenics.” *Scientific Monthly* 13 (3): 214–231.
- Fog, Agner. 1999. *Cultural Selection*. Dordrecht: Kluwer Academic Publishers.
- Galton, Francis. 1869. *Hereditary Genius*. London: Macmillan.
- Gregory, Herbert E., Albert G. Keller, and Avard L. Bishop. 1910. *Physical and Commercial Geography: A Study of Certain Controlling Conditions of Commerce*. Boston: Ginn and Co.

- Hawkins, Mike. 1997. *Social Darwinism in European and American Thought, 1860–1945: Nature as Model and Nature as Threat*. Cambridge: Cambridge University Press, 1997.
- Hodgson, Dennis. 1991. "The Ideological Origins of the Population Association of America." *Population and Development Review* 17 (1): 1–34.
- Hodgson, Geoffrey M. 2004. *The Evolution of Institutional Economics: Agency, Structure, and Darwinism in American Institutionalism*. London: Routledge.
- Hofstadter, Richard. 1944. *Social Darwinism in American Thought*. Philadelphia: University of Pennsylvania Press.
- Keller, Albert. G. 1899. "Danish Statistics." *Publications of the American Statistical Association* 6 (48): 384–385.
- . 1900a. "Danish Labor Statistics." *Publications of the American Statistical Association* 7 (49/50): 62–64.
- . 1900b. "Italy's Experience with Colonies." *Publications of the American Economic Association*, Third Series 1 (3): 105–111.
- . 1901. "French 'Assimilation.'" *Yale Review* IX (August): 218–222.
- . 1903a. *Queries in Ethnography*. New York: Longmans, Green, and Co.
- . 1903b. "A Sociological View of the Native Question." *Yale Review* XII (November): 259–275.
- . 1904. "The Theory of Descent and Social Sciences." *Yale Review* XII (February): 429–432.
- . 1905. "Eugenics." *Yale Review* XIV (May): 78–79.
- . 1907. "Nature and Nurture." *Yale Review* XVI (August): 194–197.
- . 1908a. *Colonization: A Study of the Founding of New Societies*. Boston: Ginn and Co.
- . 1908b. "Eugenics, the Science of Rearing Human Thoroughbreds." *Yale Review* XVII (August): 127–155.
- . 1910. "The Limits of Eugenics." *Bulletin of the American Academy of Medicine* XI (December): 671–685.
- . 1913. "The Writings of William G. Sumner." *Science*, New Series 37 (952): 487–488.
- . 1914. "Eugenics and Its Social Limitations." In *Eugenics: Twelve University Lectures*. New York: Dodd, Mead and Company, pp. 239–271.
- . 1915. *Societal Evolution: A Study of the Evolutionary Basis of the Science of Society*. New York: Macmillan.
- . 1919. "Law in Evolution." *Yale Law Journal* 28 (8): 769–783.
- . 1922. "Societal Evolution." In George A. Baitsell, ed., *The Evolution of Man; A Series of Lectures Delivered Under the Auspices of the Yale Chapter of the Sigma Xi During the Academic Year 1921–1922*. New Haven: Yale University Press, pp. 126–151.
- . 1925. *Race Distinction*. New Haven: Department of Anthropology, Yale University.
- . 1931. *Societal Evolution: A Study of the Evolutionary Basis of the Science of Society*. Revised edition. New York: Macmillan.
- Keller, Albert G., and Avard L. Bishop. 1912. *Commercial and Industrial Geography*. Boston: Ginn and Co.
- Lavery, Colm. 2022. "The Power of Racial Mapping: Ellsworth Huntington, Immigration, and Eugenics in the Progressive Era." *Journal of the Gilded Age and Progressive Era* 21 (4): 262–278.
- Leonard, Thomas C. 2005. "Mistaking Eugenics for Social Darwinism: Why Eugenics Is Missing from the History of American Economics." *History of Political Economy* 37 (Suppl.): 200–233.
- . 2009. "Origins of the Myth of Social Darwinism: The Ambiguous Legacy of Richard Hofstadter's Social Darwinism in American Thought." *Journal of Economic Behavior and Organization* 71 (1): 37–51.
- . 2016. *Illiberal Reformers: Race, Eugenics, and American Economics in the Progressive Era*. Princeton: Princeton University Press.
- Martin, Geoffrey J. 1973. *Ellsworth Huntington: His Life and Thought*. Hamden, CT: Archon Books.
- Murdock, George P. 1937. "Preface." In George P. Murdoch, ed., *Studies in the Science of Society; Presented to Albert Galloway Keller in Celebration of His Completion of Thirty Years as Professor of the Science of Society in Yale University*. Freeport, NY: Books for Libraries Press.

- New York Times. 1908a. "Folkways and Eugenics." *New York Times*, August 14.
- . 1908b. "A Perfect Race of Men: According to Prof. Keller the Success of Eugenics Depends on Rules Made by Custom." *New York Times*, September 27.
- Odum, Howard W. 1951. *American Sociology. The Study of Sociology in the United States through 1950*. New York: Longmans, Green.
- Ogburn, William F. 1922. *Social Change with Respect to Culture and Original Nature*. New York: Viking.
- Parmelee, Maurice. 1913. *Science of Human Behavior: Biological and Psychological Foundations*. New York: Macmillan.
- Patten, Simon N. 1885. *The Premises of Political Economy*. Philadelphia: J. B. Lippincott.
- Popenoe, Paul. 1915. "Annual Meeting of the American Genetic Association." *Science*, New Series 42 (1081): 391–396.
- Rocca, Michel, and Guillaume Vallet. 2022. "The Rise and Fall of Two Outstanding Progressives of American Social Sciences (1880s–1930s): A Critical Focus on R. T. Ely and A. W. Small." *Review of Political Economy* 36 (1): 8–30.
- Sanderson, Stephen K. 2007. *Evolutionism and Its Critics: Deconstructing and Reconstructing an Evolutionary Interpretation of Human Society*. London: Routledge.
- . 2018. "Edward Westermarck: The First Sociobiologist." In Rosemary L. Hopcroft, ed., *The Oxford Handbook of Evolution, Biology, and Society*. New York: Oxford University Press, pp. 63–86.
- Schallmayer, Wilhelm. 1903. *Vererbung und Auslese im Lebenslauf der Völker. Eine Staatswissenschaftliche Studie auf Grund der Neueren Biologie*. Jena: G. Fischer.
- Small, Albion W. 1916. "Fifty Years of Sociology in the United States (1865–1915)." *American Journal of Sociology* 21 (6): 721–864.
- Smith, Norman E. 1979a. "William Graham Sumner as an Anti-Social Darwinist." *Pacific Sociological Review* 22 (3): 332–347.
- . 1979b. "Summer versus Keller and the Social Evolutionism of Early American Sociology." *Sociological Inquiry* 49 (1): 41–48.
- Sumner, William Graham. [1899] 1965. "Earth Hunger or The Philosophy of Land Grabbing." In Albert G. Keller, ed., *Earth-hunger, and Other Essays*. New Haven: Yale University Press, pp. 31–67.
- . 1906. *Folkways: A Study of the Sociological Importance of Usages, Manners, Customs, Mores, and Morals*. Boston: Ginn.
- Sumner, William G., and Albert G. Keller. 1927. *The Science of Society*. Four volumes. New Haven: Yale University Press.
- Talbert, Ernest L. 1915. "Review of Societal Evolution by Albert G. Keller." *Journal of Political Economy* 23 (10): 1012–1014.
- Eugenics Watch. 2005. The American Eugenics Society: Members, Officers and Directors Activities Database. *Eugenics Watch* (November 8). <https://ia801305.us.archive.org/25/items/AMERICANEUGENICSSOCIETYMEMBERS/AMERICAN%20EUGENICS%20SOCIETY%20MEMBERS.pdf>. Accessed February 22, 2024.
- Todd, Arthur J. 1914. "Sterilization and Criminal Heredity." *Journal of the American Institute of Criminal Law and Criminology* 5 (1): 5.
- Turner, Johnathan H., Alexandra M. Maryanski, and Bernhard Giesen. 1997. "Biology and Sociology." In Peter Weingart, Sandra D. Mitchell, Petr J. Richerson, and Sabine Maasen, eds., *Human by Nature: Between Biology and the Social Sciences*. Mahwah, NJ: Erlbaum, pp. 19–31.
- Ward, Lester F. 1906. *Applied Sociology. A Treatise on the Conscious Improvement of Society by Society*. New York: Ginn and Co.