

**EVOLUTIONARY SCIENCE AND CHRISTIAN BELIEF IN PROGRESSIVE ERA POLITICAL
ECONOMY: ADVERSARIES OR ALLIES?**

by

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Abstract: Historians often make Christian belief and evolutionary science adversaries (as perhaps best exemplified by accounts of the 1925 Scopes trial), but Progressive Era American political economy allied Christian belief and evolutionary science. Leading progressive economists, notably the evangelicals attached to the Social Gospel movement, readily assimilated Darwinism to their religiously motivated project of economic reform. This essay argues that the progressive economists' merger of evolutionary science and Christian belief was made possible by the fact that the Social Gospel was itself already (in part) an accommodation to the implications of Darwinism, and that Progressive Era evolutionary science was protean, fragmented and plural, enabling intellectuals to enlist evolutionary science in support of diverse, even opposed positions in political economy.

“Man in his arrogance thinks himself a great work worthy the interposition of a deity. More humble & I believe truer to consider him created from animals.”

Charles Darwin

1. INTRODUCTION

Of the several influences on Progressive Era American political economy, two stand out: Christian belief and evolutionary science. Historians often make Christian belief and evolutionary science adversaries (as perhaps best exemplified by accounts of the 1925 Scopes trial), but Progressive Era American political economy allied Christian belief and evolutionary science. Leading progressive economists, notably the evangelicals attached to the Social Gospel movement, readily assimilated Darwinism to their religiously motivated project of economic reform. This essay argues that the progressive economists’ merger of evolutionary science and Christian belief was made possible by the fact that the Social Gospel was itself already (in part) an accommodation to the implications of Darwinism, and that Progressive Era evolutionary science was protean, fragmented and plural, enabling intellectuals to enlist evolutionary science in support of diverse, even opposed positions in political economy.

2. LIBERAL THEOLOGY AND PROGRESSIVE REFORM: THE RISE OF THE SOCIAL GOSPEL

In the late 1870s, American Protestant churches were no force for social reform. To the contrary, they “presented a massive, almost unbroken front . . . in defense of the social status quo” (May 1949: 91). But American Protestantism changed its relationship to social reform during the late Gilded Age and the Progressive Era, enough that historian Richard Hofstadter (1955: 152) could characterize, with cause, the entire progressive movement, in all its multifaceted variety, as “a phase in the history of the Protestant conscience, a latter-day Protestant revival.”

Historians of the social gospel, following Arthur Schlesinger’s (1932) influential essay, *A Critical Period in American Religion, 1875-1900*, characterize the Progressive Era changes in American Protestantism as a response to two mostly external challenges: the challenge to Protestantism’s social program posed by the effects of the rise of industrial capitalism and its concomitants, and the challenge to Protestantism’s intellectual (or theological) program posed by

the two-fold secularizing forces of Darwinism and the Higher Criticism of Germany. The Social Gospel, on this view, was the product of an accommodation of the liberal wing of American Protestantism to radically changed social conditions, and to modern ideas regarding the origins of humankind and the truth-value of Christianity's sacred texts.

On the social side, liberal Protestants were deeply affected, as were all nearly all Americans, by the truly spectacular changes in American economic life during the last one-third of the 19th century.¹ Following the Civil War, the United States industrialized on a revolutionary scale; the growth in productivity, in output, and in wealth was unprecedented in human history. Industrialization coincided with the development of a transportation and communication infrastructure; railroad and telegraphy networks measured the new national scope of American markets. The transformation from an agricultural to an industrial economy gave rise to a set of profound social dislocations; among them "urbanization," a rubric for characterizing the movement from farm to factory. The growth in labor demand was met, in part, by immigration on a large scale, which introduced to America polyglot peoples with disparate cultural and religious traditions.² Coincident with industrialization, nationalization, urbanization, and immigration was the 1880s rise of labor unions (craft and mass), the 1890s consolidation of industry into pools and trusts, and recurrent and sometimes violent labor conflict, for which names like Haymarket, Homestead and Pullman still serve as synecdoches.

On the intellectual side, Darwinism explained mankind's origins as entirely natural; it seemed to obviate any supernatural role in the creation of humanity. And, by arguing that all organic life shared common descent, Darwinism also threatened Christian belief in the special divine spark – the indwelling soul -- said to reside uniquely in the human animal. The German Higher Criticism also adopted a naturalistic line, suggesting that scripture be read as stories, with multiple authors, and not as revelation, the literal word of God.

¹ This is not to say that the liberal Protestants were somehow a working-class movement. To the contrary, like nearly all progressive reformers, they were members of the educated, professionally ambitious, pious middle classes. Henry May's (1949: 235) sketch is still one of the best: "The Social Gospel of the American nineteenth century . . . did not grow out of actual suffering but rather out of moral and intellectual dissatisfaction with the suffering of others. It originated not with the 'disinherited' but rather with the educated and pious middle class. It grew through argument, not through agitation; it pleaded for conversion, not revolt or withdrawal."

² By 1910, 22 percent of the US labor force was foreign-born (Goldin and Katz 2001).

The “Social Gospel” describes a late 19th-century and early 20th-century form of evangelical Protestantism that sought progressive economic and social improvement via a religiously motivated and scientifically informed project of social redemption. The Social Gospel was a fairly secularized version of Protestant post-millennialism, the Christian doctrine that prophesizes that a Kingdom of God – reigning for one thousand years of peace and love – would be realized on Earth by the good works of Christian men and women. Unlike pre-millennialism, which imagined that the Kingdom of God would be accomplished only by the triumphal bodily return of Jesus Christ, post-millennialism taught that the world could be redeemed by human beings, using the providential gifts of science, and acting in the spirit of Christ (Quandt 1973).

The post-millennial substitution of the spirit of Christ for Christ himself as the agency of redemption helped make the Social Gospel especially congruent with the more rationalistic aspects of Progressive reform. That a new order could be realized without supernatural intervention was both a consequence of naturalistic challenges to religious faith, and also a crucial means for redirecting religious energy toward more earthly concerns, social reform. Said social Gospel leader Walter Rauschenbusch in 1907: “for the first time in religious history we have the possibility of so directing religious energy by scientific knowledge that a comprehensive and continuous reconstruction of social life in the name of God is within the bounds of human possibility” (Bateman 2005: 79).

The post-millennialist change in doctrine both accommodated evolutionary science, and freed space for Protestant reformers to make use of new ideas from the natural and social sciences. Liberal Protestant reform still invoked the language of Christian brotherhood, for example, but could portray brotherhood not as a divine creation, but as the product of evolution (Quandt 1973). Later in his life, Washington Gladden (1926), a longtime leader of the Social Gospel movement, put it clearly: Christianity “must be a religion less concerned about getting men to heaven than about fitting them for their proper work on earth.”

The change from saving individual souls to redeeming society with scientific knowledge required training ministers more widely, and liberal seminaries added Christian social science texts, notably Richard T. Ely’s *The Social Law of Service* and *The Social Aspects of Christianity*, to its syllabi. Even Ely’s *Introduction to Political Economy* was widely read among seminarians.

“Unto whom should I send them if not to you?,” George Herron of Iowa College (later Grinnell College) once asked Ely (Rader 1966: 60-61).³

Traditional divines, such as Charles Hodge of the Princeton Theological Seminary, flatly rejected Darwinism. In his 1874 book, *What is Darwinism?* Hodge’s reply was: Darwinism “is atheism, utterly inconsistent with the Scriptures.” Hodge well understood the anti-creation implications at the heart of Darwinism. He saw that the “denial of design in nature is virtually the denial of God” (Larson 1997: 18). Hodge was one of the last American divines to refuse any accommodation whatsoever with evolutionary science.⁴ Conservative theology ordinarily went with conservative politics (just as the new liberal theology ordinarily went with progressive politics). Traditional pre-millennialists tended to see social reform as misguided. If only the bodily return of Jesus Christ himself could redeem the world, bringing the Kingdom of God to earth was beyond the reach of men and women.

As the Progressive Era advanced, the Social Gospel became increasingly secular. Christian conversion, traditionally a matter of spiritual rebirth, came more and more to mean the more secular notion of moral improvement of the individual (Quandt 1973: 394). The agencies of redemption also were expanded beyond the church. “God works through the State in carrying out His purposes more universally,” Richard T. Ely could thus say, “than through any other institution” (1896: 162-62). And, just as salvation was increasingly socialized, so too was sin. Sociologist Edward A. Ross’s (1907) *Sin and Society: An Analysis of Latter-Day Iniquity*, summarized the new view that sin was no longer a matter of individual failure. Sin, Ross said,

³ Though the Social Gospel movement of the Progressive Era clearly represents a change in the outlook of the Protestant churches, it is nonetheless possible to see continuity with its mid-19th century precursors, especially revivalism. Handy (1966), for example, argues that these different movements can be seen as phases in a century-long project to Christianize America, as part of a divine mission.

⁴ When in 1868 the College of New Jersey (later Princeton University) imported James McCosh to be its president, it knew it was getting a theologian able to at least partly reconcile Christian belief with Darwinism. McCosh offered a kind of “natural theology,” wherein the law of natural selection is one of the methods God used to produce a multifarious nature, and that the history of evolution reveals “a design and a unity of design in it, in the unconscious elements all being made to conspire to a given end.” This quotation and an excellent discussion are available in David Livingstone (1992).

was social in cause.⁵

And Social Gospellers, inside and outside theological circles, increasingly effaced the line between revelation – what God discloses – and scientific knowledge, what humankind can discover for itself (Quandt 1973: 400). Leading Social Gospeler Josiah Strong, for example, accomplished this by declaring that natural laws, such as evolution, were the laws of God. Lyman Abbott, another leading Social Gospel minister, Henry Ward Beecher’s successor in the pulpit at Plymouth Congregational Church, and a charter member of the American Economic Association, went further still. God did not create evolution by natural selection. It was, rather, that God was immanent in nature, and also in all good and progressive institutions.

As Jean Quandt points out, Abbott’s thoroughgoing immanentism completely swallowed the supernatural in the natural (1973: 401), essentially reaching the fatal conclusion that Charles Hodge had seen and resisted. William Graham Sumner, himself an ordained Episcopalian minister who pastored for three years before joining the Yale faculty, agreed with Hodge, though Sumner embraced rather than resisted the implication. “When theologians declare that they accept the evolution philosophy because, however the world came to be, God was behind it,” Sumner said, “this is a fatal concession for religion or theology. It may be safe from attack but it is also powerless and a matter of indifference” (cited in Everett 1946: 19).

3. “TO REDEEM ALL OUR SOCIAL RELATIONS”: THE SOCIAL GOSPEL AND PROGRESSIVE ERA POLITICAL ECONOMY⁶

Religion has long held a distinctive place in American reform, as it did with the Progressive Era political economists who made American economics into a professional, reformist, expert and university-based discipline. The founders of the American Economic Association (AEA) offered a program of economic reform that was deeply informed by the Social Gospel (Bateman and Kapstein 1999). The merger of Christian faith, science and reform

⁵ Ross was not especially religious, but his argument was a common one in liberal theological circles. The use of Christian idiom by even the less religious progressives was a feature of American intellectual life until the end of WWI.

⁶ An excellent survey, which this essay has benefited from, is Bateman and Kapstein 1999.

characteristic of the social Gospel also well described Progressive Era American economics and the other nascent sciences of society, especially sociology.

When the AEA published its first membership list in 1886, it was dominated by ministers and ministers' sons, especially those affiliated with the social Gospel. Bob Coats (1988) counted 23 clergymen among the 55 or so members who signed on in Saratoga in 1885, and Charles Hopkins (1940) singled out thirteen of them as prominent leaders of the social gospel movement, among them Washington Gladden, Lyman Abbott, R. Heber Newton and Newman Smyth. Rev. Josiah Strong, who joined not long thereafter, referred to the AEA economists as belonging to the "Christian School of Political Economy."⁷

Ely offered a representative Social Gospel view of Christianity. "Christianity," Ely (1889: 53, 57) asserted, "is primarily concerned with this world," and its mission is to "bring to pass here a kingdom of righteousness and to rescue from the evil one and redeem all our social relations." Ely himself represented his program (to Daniel Coit Gilman, president of Johns Hopkins University) as a movement that "would help in the diffusion of a sound, Christian political economy" (Crunden 1982: 13).⁸ And Ely did not hesitate to join the AEA's mission to that of the Social Gospel's. In the very first AEA publication Ely proclaimed: "The mission of the Church is likewise emphasized [by the AEA]," and, in support of the idea he quoted Jesse Macy of Iowa College (later Grinnell College), also a charter member. "The preacher," said Macy, "in an important sense, is to be the originator of true social science; his work is to render possible such a science" (Ely 1886: 17).

The scope of redemption Ely's Christian reform imagined was not modest. Said Ely, "Christianity is a national concern as well as an individual concern." Indeed, Ely argued further, it is an international concern: "the mission of Christianity," he averred, "is indicated by the title

⁷ Using the AEA's first published list of members (1886), I count 20 members (of 182 total) with a religious title, all of which were Protestant in denomination.

⁸ Simon Newcomb, Ely's nemesis at Johns Hopkins, acidly characterized Ely's view of the AEA as follows: it is "intended to be a sort of church, requiring for admission to its full communion a renunciation of ancient errors, and an adherence to the supposed new creed" (Coats 1960: 558). Newcomb exaggerated, but this was not so far from how Ely himself represented the project to friendly audiences.

of Canon Fremantle's great work, *The World as the Subject of Redemption*" (1894a: 889).⁹ Ely was entirely in keeping with his Social Gospel confreres here: Lyman Abbott and Josiah Strong especially were vigorous proponents of a Christianized Anglo-Saxon manifest destiny.¹⁰

Most of the association's leading co-founders -- Henry Carter Adams, Edward Bemis, John Bates Clark, Edmund J. James, Simon Patten -- were, like Ely, not just reformers, but also Social Gospellers. All of them were sons of respectable, evangelical New England families, who "valued moral conscience in social and political as well as personal life," and who "demanded of themselves and their countrymen moral purity and social renewal" (Ross 1991: 102). (See also Furner 1975: 49-54).

Robert Crunden (1982: 16), in his *Ministers of Reform*, presents the thesis that progressivism was defined by evangelical Protestantism. -- not only because so many of its lay leaders came from evangelical homes, but also because they had resisted ministerial or missionary careers, seeking a new vocational outlet for what Dorothy Ross calls their "oppositional Christian conscience." Many, such as Ely, failed to have the conversion experience so central to the evangelical Christianity they were raised in, which led, Crunden suggests, to a characteristic period of self-doubt, and wandering, followed by the development of new vocational roles, especially that of the social worker and university-based social scientist, which could provide an outlet for their oppositional Christian conscience.¹¹

Henry Carter Adams provides an example. Adams was born in 1851 in the frontier state of Iowa. His father, Ephraim Adams joined fellow graduates of the Andover Theological

⁹ Ely's (1894) remarks were made in the context of a nationalist argument for banning the immigration of Chinese to the United States. In it Ely criticized the "Christian Church" for its "unfortunate stand in the discussion of immigration." "The [pro-immigration] policy which she pursues is largely the result of individualism," Ely maintained, "and this has been one of the historical weaknesses of Protestantism."

¹⁰ Gossett (1965) and others historians suggest that the Social Gospel ministers' aggressive militarism toward Spain during the Spanish American War was connected to a deep-seated anti-Catholicism among them.

¹¹ Dorothy Ross (1991: 102) makes the interesting claim that that the less reformist among the founding economists were less reformist (in part) because they were not from evangelical homes, and thus lacked the impetus of that "oppositional Christian conscience." She locates J. Laurence Laughlin, Arthur T. Hadley, Frank Taussig and Henry Farnam in this group, noting that they were not sons of ministers but of successful businessmen or professional men.

Seminary in 1843 to form the famous Iowa Band, which dedicated their lives to building a Christian commonwealth west of the Mississippi. Ephraim Adams helped co-found Iowa College (later Grinnell College), an institution of Christian education (Dorfman 1954: 9).

Adams intended to enter the ministry, to the point of enrolling at Andover Theological Seminary in 1875. But then, as E.R.A. Seligman recalled in a memorial to him, Adams experienced a personal crisis, and abandoned the ministry for “economic science.” Seligman, with his characteristic acuity, remarked that Adams found in progressive social science simply a different outlet for his oppositional Christian conscience; Adams pursued economics “not so much for itself, as constituting an avenue through which to reach his goal of ethical reform” (cite). Adams was an exemplar, but Bemis, Clark, James, Patten and John R. Commons also fit the Social Gospel profile well.¹²

During the severe depression of 1893, and occasioned by their meeting at Chatauqua, Ely joined with John R. Commons and George D. Herron, a Congregationalist minister Ely had helped place in a sociology professorship at Iowa College (later Grinnell College), to form the short-lived Institute of Christian Sociology (Furner 1975: 150).¹³ As Commons recalled in his autobiography, their aim “was to present Christ as the living Master and King and Christian law as the ultimate rule for human society, to be realized on earth” (Commons 1934: 51).

The Social Gospel economists were liberal (progressive) in their politics and in their theology, but, as laypersons who had eschewed a career in ministry or missionary work, their chief desire was to save the world, not the church. That is, they were more concerned to reform the economy than to reform the Protestant churches or their theology.¹⁴ Ely said in 1886 that the

¹² It perhaps goes without saying that many progressive social scientists with connections to the Social Gospel movement did not appear immediately on the AEA rolls. An example is John Bascom, a progressive economist who served as president of the University of Wisconsin from 1874-1887, and whose *Sociology* (1887) can be described as a scholarly form of Kingdom theology.

¹³ Herron was a radical Christian socialist, whose extremism alarmed even Commons. Mary Furner tells of how Albion Small, who was trying to establish the scientific *bona fides* of sociology at John D. Rockefeller’s newly established University of Chicago, begged Ely to disassociate himself with Herron, whose Christian sociology was, in Small’s view, all advocacy and no objectivity – a threat to scientific aspirations of the nascent discipline (1975: 151-52).

¹⁴ I am speaking here of the *objects* of reform. There is no doubt that the Christian progressive

importance of religion for reform came to him “by an independent route as a social scientist” (Quandt 1973: p. 403).

Walter Rauschenbusch, perhaps the most influential 20th century Social Gospel leader, put it even more plainly in the opening lines of *A Theology for the Social Gospel* (1917): “We have a social gospel. We need a systematic theology large enough to match it and vital enough to back it.”¹⁵ Ely and the Social Gospel economists may well have influenced theology, but not by design; they were most influential in recruiting liberal clergy to the cause of social and economic reform.

The influence of the Social Gospel upon Progressive Era political economy will not be a surprise to those who know Bradley Bateman’s work.¹⁶ What is perhaps less well known is that Progressive Era economics, like the liberal Protestantism it drew so heavily upon, was also profoundly influenced by evolutionary science. In the next section, I argue that progressive economics, though deeply informed by Christian belief, proved to be eminently compatible with evolutionary science, for two reasons. First, as already noted, the Social Gospel was itself informed by, indeed partly a reaction to the new view of human origins occasioned by evolutionary science. “Translate the evolutionary theories into religious faith,” Rauschenbusch could say in *Christianizing the Social Order*, “and you have the doctrine of the Kingdom of God.”¹⁷ Liberal Protestants, not least those of the Social Gospel camp, saw no necessary conflict between science and religion.

Second, evolutionary science in the Progressive Era was protean, fragmented and plural,

economists’ social reform impulse was, in important measure, the product of a their particular religious upbringing.

¹⁵ Most Social Gospelers, like the progressive economists, were more Social Christians than Christian Socialists. Some, however, like Rauschenbusch, and before him George Herron, were more radical. “If we can trust the Bible,” Rauschenbusch wrote, “God is against capitalism, its methods, spirit, and results. The bourgeois theologians have misrepresented our revolutionary God,” for a “conception of God which describes him as sanctioning the present social order . . . is repugnant to our moral sense” (Rauschenbusch 1917: 183-84).

¹⁶ See, for example, Bateman (1998), Bateman and Kapstein (1999), Bateman (2001).

¹⁷ “This combination with scientific evolutionary thought has freed the kingdom ideal of its catastrophic setting and its background of demonism,” Rauschenbusch continued, “and so adapted it to the climate of the modern world” (1912: 90).

reflecting the fact that the so-called Darwinian revolution was not complete until the 1940s, a fact which allowed intellectuals to enlist evolutionary science in support of diverse, even opposed positions in political economy. Darwinism, for example, found exegetes of virtually all ideologies: laissez-faire and socialist, individualist and collectivist, pacifist and militarist, pro-natalist and neo-Malthusian, as well as religious and agnostic (Jones 1988: 7).

Leading eugenicist Karl Pearson (1894) found a case for socialism in Darwin, as did the co-founder of the theory of evolution by natural selection, Alfred Russel Wallace. Herbert Spencer defended laissez-faire on evolutionary grounds (even if he was no Darwinian; see Leonard 2009). Militarists left and right found survival-of-fittest arguments useful for the defense of imperialism, while Peter Kropotkin argued nature could select for cooperation, explained in his *Mutual Aid* (1902). Nature could select for cooperation among individuals within a species, and also between species – symbiosis. David Starr Jordan, president of Stanford and a leader of the American Peace Movement, opposed the First World War on grounds it was dysgenic -- the fittest men were killed, while the unfit stayed home to reproduce.

Darwin himself seems to have been pro-natalist, while neo-Malthusian Margaret Sanger, who coined the term “birth control,” embraced eugenics.¹⁸ Darwin’s “bulldog,” T.H. Huxley, thought natural selection justified agnosticism (a term he coined), whereas the American Protestant Social Gospellers happily assimilated Darwin to their evangelical reform purposes. It is a tribute to the protean qualities of Darwinism that, as historian of biology Paul Crook points out, it could even be assimilated into “traditional value systems, theodicies and moral philosophies . . . that on the whole spurned stark survivor ethics” (1996: 268).

4. EVOLUTIONARY SCIENCE IN PROGRESSIVE ERA AMERICA

Historians of biology and social science have established the extraordinarily broad appeal of evolutionary science, especially during the Progressive Era. But an alternative historiography, one founded upon a narrow reading of Richard Hofstadter’s (1944) influential *Social Darwinism in American Thought*, still holds sway. It identifies Darwinism with laissez-faire; attaches the

¹⁸ On Darwin’s private view of birth control, this during the famous Bradlaugh-Besant trial, see Peart and Levy (2008).

pejorative “social Darwinism” to it, and because progressive reform was opposed to laissez-faire, wrongly assumes that progressive reform was therefore opposed to Darwinism and to evolutionary science applied to society. Ever since Hofstadter’s intervention, the social Darwinists have been the advocates of individualist competition, with Herbert Spencer and William Graham Sumner the exemplars (Leonard 2009). But evolutionary ideas were widespread in the Progressive Era, and they were very influential among the progressive economists and reformers who led the assault upon laissez-faire, and for whom Spencer and Sumner were *bête noirs*.

Thorstein Veblen (1899), for example, proposed that economics be reconstructed upon Darwinian principles. Alfred Marshall, whose *Principles* frontispiece recorded the same motto found in *The Origin of Species* (1859), *natura non facit saltum*, opined that “the Mecca of the economist lies in evolutionary biology . . . ” (1920 [1890]: 19).¹⁹ Writing in 1894, Wharton School progressive Simon Patten said: “The great scientific victories of the nineteenth century lie in the field of biology We are closing this century with as definite a bias in favor of biologic reasoning and analogy as the last century closed with a similar bias in favor of the method of reasoning used in physics and astronomy” (1894: 68). Patten’s *Theory of Social Forces* (1896) and his *Heredity and Social Progress* (1903) attempted to integrate evolutionary science into political economy. Richard T. Ely’s (1903) *Studies in the Evolution of Industrial Society* attempted an evolutionary synthesis that would explain the evolution of society, economy and mankind.²⁰

Political economists were also active and influential contributors to racial science.²¹ John

¹⁹ On the use of biology analogies in Marshall, see Neil Niman (1991).

²⁰ In his autobiography, Ely recalled of the AEA insurgency that “The most fundamental things in our minds were on the one hand the idea of evolution, and on the other hand, the idea of relativity” (1938: 154).

²¹ At the turn of the century, Veblen’s *Journal of Political Economy* published an extraordinary outpouring of articles by economist Carlos Closson, who popularized and proselytized for the scientific racism of two leading physical anthropologists, Georges Vacher De LaPouge, and Otto Ammon (e.g., LaPouge and Closson 1897). The European anthropologists measured thousands of human heads, calculating the cephalic index, or ratio of head width to head length, which they believed demonstrated a permanent race hierarchy. Racial science, founded upon the measurement of heads, was “destined,” wrote LaPouge and Closson, “to revolutionize the political and social sciences as radically as bacteriology has revolutionized the sciences of

R. Commons' (1907) *Races and Immigrants*, depicted African Americans as irredeemably inferior biologically, and made a case against immigration on racial grounds. The most influential racial taxonomy, this in the heyday of American race science, was *The Races of Europe* (1899), was written by economist William Z. Ripley.²² And a *Who's Who* of Progressive Era political economy appealed to eugenics – planned social control of human heredity – to justify the economic reform legislation so characteristic of the time (Leonard 2003).

5. THE PROTEAN ASPECT OF EVOLUTIONARY SCIENCE, CIRCA 1900.

Dorothy Ross (1991: 106) argues that, for the progressive economists who founded the AEA, “the triumph of Darwinian evolution was now broadly visible, and it became more central to their world view.” In broad outline, this is surely correct. But Darwinism was not one idea but several, and its “triumph” occurred only in stages, such that some of its most important ideas, such as natural selection, were not accepted until the “Darwinian Synthesis” of the 1940s. At the turn of the 20th century, in fact, evolutionary thought was fragmented, contentious and plural. Historians of biology refer to this period as one of the eclipse of Darwinism (Bowler 1983).

To see this, let us unpack some concepts, defining Darwinism as gradual evolution caused by the natural selection of small, random variations of inheritable traits. We can, following Mayr (1991), describe Darwin as advancing five ideas: evolution, common descent, multiplication of species, gradualism and natural selection. Take evolution first. Evolution, as such, is the idea the world is not constant but rather is steadily changing, so that organisms are transformed in time. All living things, said Darwin at the conclusion of the *Origin*, “have been, or are being, evolved” (p. 491). The concept of evolution was by no means new with Darwin, but the *Origin* made the case persuasively, and fairly quickly bested the creationist concept that all species remains constant over time.

Common descent, second, is the theory that every group of organisms is descended from a

medicine” (1897: 54). Veblen selected their boast to introduce his influential evolutionary critique of neoclassical political economy, “Why is economics not an evolutionary science” (1898).

²² Ripley trained at MIT and Columbia, spent a long career at Harvard studying railroad economics and served, in 1933, as president of the AEA.

common ancestor, and that all animals, plants, and microorganisms, ultimately branch back to a single origin of life on earth. The “tree of life,” Darwin called it. The first two ideas, evolution and common descent, were widely accepted relatively early among American intellectuals, reformers included. This is not the case for the remaining three, which were not majority views until the 1940s.²³

Gradualism is the theory that evolutionary change in populations takes place gradually and not by the sudden (a.k.a. saltational) production of new individual types. This implies that variation in inherited characters are minute, and, as the *Origin*'s motto had it, nature doesn't make leaps.

Natural selection is a theory of the mechanism of evolution, which says that evolutionary change occurs via the production of inheritable variation in every generation. The relatively few individuals who survive, owing to their well-adapted combination of inheritable characters, give rise to succeeding generations.

The fact of evolution, and of common descent were widely accepted by intellectuals and scientists by the Progressive Era. But the cause of evolution – natural selection – and evolution's rate, direction, and consequences were all strongly contested, both inside and outside evolutionary science.

In Darwin's day (he died in 1882), part of the problem was that his account was incomplete: Darwin did not possess genetics, and admitted that he lacked knowledge of the mechanisms by which inherited characters varied or were transmitted. American botanist Asa Gray, for example, was an early advocate of Darwinism – he arranged for the *Origin*'s first publication in the United States. But Gray was also a Christian traditionalist. Gray was able to fill one gap in Darwin's account with a theistic twist: God was responsible for the beneficial variation of inherited characters, promoting progressive evolution (Larson 2004: 86). Variation was purposeful and divine in origin. Hebert Spencer also embraced purposeful variation, though, as an anti-deist, made it human in origin.

²³ I will not discuss speciation, or the multiplication of species, the theory that explains the origins of organic diversity by postulating that species multiply, either by splitting into daughter species or by the establishment of geographically isolated populations that evolve into new species.

The matter of which traits could be inherited was also wholly unresolved in Progressive Era evolutionary science. Alfred Russel Wallace, who became a socialist upon reading Edward Bellamy's utopian *Looking Backward* in 1889, was a hard hereditarian – characteristics acquired during an organism's lifetime were not transmitted to progeny. Herbert Spencer, a proponent of laissez-faire, was a Lamarckian. He imagined that competition induced human beings to actively adapt themselves to their environments, improving their mental and physical skills – acquired traits that would be inherited by their descendants. Spencer's view was that, in the struggle for existence, self-improvement came from conscious, planned exertion, not from the chance variation and natural selection that are the heart of Darwinism.²⁴

The mechanism of inheritance was thus intimately connected to another contested question, one with obvious implications for reform: is evolution progressive? Evolution *was* progressive in Spencer, whereas, for Darwin, at least the early Darwin, evolution implied no teleology, only change. Darwin warned in the *Origin*: "I believe . . . in no law of necessary development" (1859: 351). And, with respect to humankind, Darwin again demurred, "progress is no invariable rule" (1871: 177).²⁵

Spencer's optimistic belief in human progress via Lamarckian bootstrapping was at odds with Darwinism's randomness and its openness to non-teleological change. Spencer's status as the standard bearer of progressive Lamarckism in the 1890s was such that that many reformers, such as Lester Frank Ward, often found themselves in the awkward position defending Spencer, a man whose individualism and laissez-faire economics they loathed (Degler 1991: 22).

Also relevant for reform in the Progressive Era was the contested question of how fast human beings evolve. Both Darwin and Spencer thought species evolved gradually, with clear implications for social reform. Thus on anti-gradualist grounds did progressives condemn the "cold determinism of Spencer's philosophy" (Hofstadter 1944: 85). But reformers could find comfort in evolutionary science when it embraced the prospect of nature making leaps. Even

²⁴ Darwin was somewhere in between, which is why hard hereditarians like Wallace and August Weismann were called neo-Darwinians.

²⁵ When John Fiske toasted Herbert Spencer, at the famous New York Delmonico's dinner celebrating Herbert Spencer, he said: "Evolution and religion: that which perfects humanity can not destroy religion" (Youmans 1883: 56-57). Evolutionary progress and perfection are Spencerian ideas, not Darwinian ones.

Darwin's "bulldog," T.H. Huxley, saw no reason to restrict variations to be "infinitesimally small," as Darwin supposed. Why couldn't, with sufficiently dramatic mutations, nature make leaps? Only with this implied saltationist belief could many progressive economists endorse eugenics, which was predicated on the idea that desirable traits could be bred into humanity (and undesirable ones breed out) with reasonable dispatch.²⁶

And, was natural evolution a model or a threat for human society? Nature red in tooth and claw was a favorite rhetorical device of reformers who wished to indict free-market capitalism as brutish or animalistic. Lester Frank Ward regarded nature as a threat to be overcome: "man's successful evolution amounted to the suppression of competition" (cited in Morgan 1993: 583, n 35). It is human "resistance to the law of nature," Ward argued, that promotes good ends. "Where competition is wholly removed," what remains "begins to make great strides, and soon outstrips all those that depend upon competition" (1898: 257-58). Citing Ward, Ely summarized this viewpoint as the "superiority of man's selection to nature's selection" (1903: 141).

But a more benevolent view of competition in nature was also available from evolutionary science, handy for pro-competition economists. Wallace, in particular, judged natural selection (among animals) as relatively painless; animals were happy, he judged. Natural selection, Wallace wrote in *Darwinism*, affords "the maximum of life and the enjoyment of life with minimum of suffering and pain."²⁷ And we have already seen Petr Kropotkin's (1902) argument that nature can select for cooperation as much as for conflict. Thus could economist Arthur T. Hadley credibly defend market competition when he argued that "competitive ethics is not mere glorification of force" (1906: 59-60). And John Bates Clark could model his pioneering neoclassical economics, where market competition is socially beneficial, upon a more harmonious conception of the natural order.

And, perhaps most central of all, was the debate over whether natural selection was indeed the mechanism of evolution. At the turn of the 20th century, the majority opinion inside evolutionary science was, no. Thus do historians of biology refer to the first decade or so of he

²⁶ Eugenics would be of little practical use if it took several hundred generations to breed in better traits and breed out worse ones.

²⁷ Though a co-founder of the theory of evolution by natural selection, Wallace always referred to the theory as "Darwinism."

20th century as “the eclipse of Darwinism” (Bowler 1983). By 1900, many, perhaps even most biologists rejected natural selection as the mechanism of evolution. Stanford zoologist Vernon Kellogg wrote in 1907: “the fair truth is that Darwinian selection theories stand to-day seriously discredited in the biological world” (Larson 1997: 20).

Among social scientists, then, there was room to propound or to attack survival of the fittest doctrine. Evolutionary ideas were used to defend *laissez-faire* and also to attack it. So, Thomas N. Carver, a conservative Harvard economist, wrote in *The Religion Worth Having*, that “the laws of natural selection are merely God’s regular methods of expressing his choice and approval.” “The naturally selected,” Carver pronounced, “are the chosen of God” (1912: 88).²⁸ Progressive economists rejoined, in many places, that, as Lester Frank Ward put it, “The fittest, we all know, are not always the ideally best” (1907: 298). In fact, said Ward, economic competition “[prevents] . . . the really fittest from surviving” (1898: 258).²⁹

There was, however, little disagreement between conservatives and progressives on the value of selection, and its importance for the biological fitness of the human species. The disagreement concerned only how, and to what extent, humankind had a role in superintending its own evolution. The proponents of *laissez-faire* argued that the best way to improve the race was by Spencerian bootstrapping, for individuals to purposefully improve their minds and bodies. Wallace, and Charlotte Perkins Gilman, argued that best mechanism would be female selection. Improve the economic status of women, and they will choose fitter husbands. The eugenicists, for their part, wanted government experts to select the fittest.

6. EUGENICS AS A SECULAR FAITH

Modern eugenics was named by a religious skeptic. Francis Galton coined the term “eugenics” in *Inquiries into Human Faculty* (1883), a volume that reprinted his 1872 essay,

²⁸ Note well, Carver (1912) is speaking here of nations, not individuals. Carver, rather than finding natural selection incompatible with religious belief, made it coextensive with religion.

²⁹ In his influential *The Promise of American Life*, Herbert Croly of the *New Republic* put his case for a vigorous national government in eugenic language, arguing that artificial selection, by which he meant state-guided reform, was superior to natural selection, by which he meant *laissez-faire*. The state, said Croly (1909: 191), had a responsibility to “interfere on behalf of the really fittest.”

“Objective Efficacy of Prayer” (pp. 277-94). Was prayer, Galton asked in his characteristically skeptical and empirical fashion, efficacious in extending life? After dryly noting the advantages of large data sets to anecdote, Galton compared the life expectancies of “prudent materialistic people” to those of “prudent pious people.” He found that clergymen and missionaries lived no longer than did their less pious equivalents in law and medicine. And royalty, for whom thousands prayed every day, actually lived relatively shorter lives. Galton concluded that “no, prayers are not answered,” and made a not-so-subtle association of Christian faith in prayer with superstition, witchcraft, and astrology. Galton’s effect, judged historian Theodore Porter of the episode, “was to crush mystical piety under a heap of miscellaneous statistical facts” (1986: 137).

Galton was deeply skeptical, even contemptuous of religious belief, and in this sense he fits the historiographic template of an opposition between Christian belief and evolutionary science. But, his views of supernatural cause notwithstanding, Galton well understood the importance of shared values and organization to a social cause, especially one that seemed to aim so clearly at human betterment. Galton regarded social control of human heredity as a matter of utmost importance, worthy of religious devotion. Believing that the eugenic cause was premised upon “the essential brotherhood of mankind” (1909: 75), Galton imagined that eugenic science could function as a kind of secular faith – eugenics could *scientifically* redeem the human race. Once armed with sufficient scientific evidence regarding human heredity, eugenics would become “an orthodox religious tenet of the future,” perhaps even “a religious dogma among mankind . . .” (1904: 2-5).

Galton also understood the importance of proselytizing for a secular faith, as when he called for a “‘Jehad’ or Holy War” upon all “customs and prejudices that impair the physical and moral qualities of our race” (1909: 99). Galton was an effective preacher: he induced the excitable George Bernard Shaw to proclaim: “there is now no reasonable excuse for refusing to face the fact that nothing but a eugenic religion can save our civilization from the fate that has overtaken all previous civilizations” (Galton 1904: 21).³⁰ Fabian socialist F.C.S. Schiller declared it was “God’s will that we make efforts in continuing evolution.” Another eugenicist

³⁰ Galton recognized that his religious skepticism might hinder the eugenic cause in more religious countries, so that when the second edition of *Inquiries* was prepared for publication in the United States, Galton expunged the offending essay. (See Zenderland 1998).

proclaimed that “it is our Christian duty to act as God’s deputies” (in Childs 2001: 4).

Galton’s idea – that eugenics might serve as a kind of civic religion – caught on, not least among eugenicists charged with locating converts. Irving Fisher, economist and president of the American Eugenics Society – the American eugenics movement’s public education wing – said, “I believe that what Francis Galton said is absolutely true, that if we would redeem mankind, we must make of eugenics a religion” (Fisher *CW* vol 13, p. 175). Fisher’s 1915 address to the Second Race Betterment Conference, sponsored by cereal magnate and eugenicist John Harvey Kellogg, called eugenics the “foremost plan of human redemption.” In a moment of enthusiasm two years prior, Fisher imagined eugenics as uniting science and religion. “We shall make of eugenics the biggest pillar of the church,” Fisher proclaimed, “and eugenics will become embedded in the religion of the future. It shall happen hereafter that instead of conflicts between science and religion, these two great human interests will be marching together, hand in hand” (1913: 582-84).

Charles Davenport, acknowledged leader of the American eugenics movement and the man who introduced Fisher to eugenics, published in 1916 a little catechism entitled *Eugenics as a Religion*, the text of a speech given at the Golden Jubilee of J.H. Kellogg’s Battle Creek, Michigan Sanitarium. In it, Davenport depicts the science of eugenics, which instructs on how society can breed the “highest, most effective type” of human being, as providing a kind of Apostles Creed: an eleven-point “creed for the religion of eugenics,” including “I believe that I am the trustee of the germ plasm that I carry,” and, “I believe in repressing my instincts, when to follow them would injure the next generation.”³¹

It was left to Dr. Albert Wiggam, who succeeded Fisher as President of the American Eugenics Society, to take the next step: to make eugenics into what Wiggam styled as a *New Decalogue of Science* (1922). Among Wiggam’s eugenic commandments were: “the Duty of Eugenics,” “the duty of Scientific Research,” and the “Duty of the Socialization of Science” (1922).³² Wiggam argued that a moral code required more than belief, it also required scientific knowledge. Only now, said Wiggam, did science provide humankind with knowledge sufficient

³¹ See Christine Rosen 2004: 93-94.

³² “Eugenics,” said Wiggam, “is simply evolution made conscious and intelligent” (1922: 11).

to act upon the original Ten Commandments. “Men have never really been righteous, because they did not know how,” Wiggam argued. Evolutionary science provided not only new commandments, but also a “technic [sic] for putting the old ones into practice” (1922: 643). A few years later, the AES would publish its own Eugenics Catechism, which, among other injunctions, informed readers about sterilization:

Q: Is vasectomy a serious operation?

A: No, very slight, about like pulling a tooth.³³

A key aspect of the eugenicists’ plan to invest eugenics with religious significance was to enlist clergy sympathetic enough to lend their efforts to the cause. The AES, through its Committee on Cooperation with Clergymen, made common cause with ministers and even priests and rabbis sympathetic to the goals of eugenics. (See Rosen 2004). A surprising number of liberal clergymen used their platforms to proselytize for eugenics, including Monsignor John Ryan, a noted academic progressive.³⁴

But unlike most of the clergy they enlisted, all of these scientists – Galton, Fisher, Davenport and Wiggam -- were religious skeptics. Wiggam’s *Decalogue*, which took the rhetorical form of a hectoring letter from a biologist to a statesman, was clear: “leaders come not by prayer but by germ cells.” So, though they appropriated the traditional idiom and imagery of Christian belief, it was nature, and the human understanding of nature – science – that formed the foundation for their social creed. Scientific knowledge, which left little room for the supernatural, would, in the face of the anti-God implications of Darwinism, provide secular

³³ Fisher charged Madison Grant, author of *The Passing of the Great Race*, with searching scripture for an appropriate motto for the medals the AES awarded in their “fitter family” competitions staged at state fairs. Grant returned with “Yea, I have a godly heritage,” from the Book of Psalms, 16. This is recounted in Rosen 2004: 112-114.

³⁴ Until 1930, the Catholic Church opposed not eugenics as such, but the instruments of *negative* eugenics: contraception, sterilization (and divorce) were opposed by Church doctrine. Positive eugenics, encouraging more children from the fitter classes, was more pro-natalist, and was thus less problematic for the Church, at least in terms of doctrine, and it was along these lines, until eugenicists embraced birth control, that reform Catholics such as Ryan could join eugenics societies and make eugenic noises. The *Casti Connubii* papal encyclical (31 Dec 1930), announced the papal condemnation of eugenics, and prompted Ryan’s resignation from the AES.

meaning (Kaye 1986) -- devotion to the shared cause of improving the race. For these men, eugenic science was a religion of *this* world, and science was to be the source of moral authority in place of traditional religion.³⁵

Galton's quest – making a (civic) religion of eugenics – can thus be seen a part of a broader Progressive Era movement to find meaning and to reground morality with religious faith under assault. The Social Gospel economists were decidedly not religious skeptics, but they too, like all progressives, appealed to the epistemic and moral authority of science, an appeal which comprised their view that evolutionary science could explain and control human inheritance and that the still nascent sciences of society could explain and control the causes of economic ills.

Evolutionary science's epistemic authority was crucial to American economics' professionalizing project, the establishment of an expert science of society, centered in the universities and government statistical bureaus. Only scientific credibility would allow economists to offer their claims as expert knowledge, what Mary Furner (1975) calls the goal of objectivity.

At the same time, science also mattered for the goal that ordinarily tugged reform economics in the opposite direction: setting the world to rights, what Furner calls advocacy. That is, science's moral authority mattered too, for the new evolutionary naturalism meant that the progressives' justification for social reform – though still rendered in a Christian idiom of uplift and redemption –also had to be grounded upon a defensibly modern, scientific view of humankind and its social relations.

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³⁵ The multiplicity of outcomes reached when evolutionary science met Christian belief is demonstrated by the case of G. Stanley Hall. Zenderland (1998) relates the story of Hall, a pioneering child psychologist, progressive reformer, eugenicist and president of Clark University. Hall was also a graduate of Union Theological Seminary, and he challenged Galton's religious skepticism, explicitly rejecting Galton's attempt to proclaim eugenics as a new religion. Hall's argument was that no new religion was needed: Christianity was perfectly compatible with eugenics, indeed eugenics was latent "in our Scriptures." Hall published an account of Jesus Christ as a eugenic superman.

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