# Darwinism and Social Darwinism

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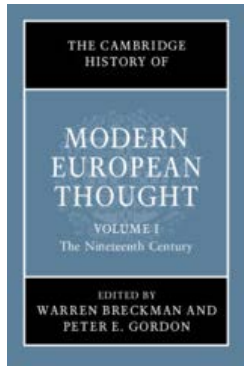


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## A Darwinian Beginning

Whoever says "social Darwinism" says "survival of the fittest, in society as in nature." There are good reasons to regret that the term ever acquired this meaning, and good historical studies to learn from in understanding how and why it nevertheless became the entrenched meaning. But there is also an oft-mentioned bad reason for regret, linked to bad history. Social Darwinism, it is sometimes said, has nothing whatever to do with Charles Darwin (1809–1882) or with the body of time-tested facts, theories, and practices deriving from Darwin's work. On this view, Darwinism is science, and social Darwinism a pseudo-science masquerading as an application of Darwinism.[1]

To see why such a separation is untenable, we need only consider an exchange of letters from Darwinism's beginning. In October 1859, while Darwin was awaiting publication of *On the Origin of Species by Means of Natural Selection*, he corresponded about it with the geologist Charles Lyell, who had read the book in proof. Lyell's verdict meant a great deal to Darwin. There was no one whose judgment Darwin esteemed more highly. But there was also no one more fully committed to an idea that the *Origin of Species* aimed to discredit. For Lyell, species were independent creations, each brought into being by the "Author of Nature" (Lyell's phrase) according to a divine plan, and designed to thrive for a particular period in a designated region of the Earth. By contrast, Darwin in the *Origin of Species* explained the

1 Donald C. Bellomy, "'Social Darwinism' Revisited," *Perspectives in American History*, new series, 1 (1984), 1–129; Jim Moore, "Socializing Darwinism: Historiography and the Fortunes of a Phrase," in *Science as Politics*, ed. Les Levidow (London: Free Association Books, 1986), 38–80; and Steven Shapin and Barry Barnes, "Darwin and Social Darwinism: Purity and History," in *Natural Order: Historical Studies of Scientific Culture*, ed. Barry Barnes and Steven Shapin (London: Sage, 1979), 125–142.

origin of species by appeal only to ordinary, continuously operating, law-governed natural processes, which anyone could see in action now – chiefly, processes of variation (when individuals of a species are born a little different from the others), inheritance (when those individual differences are passed on from parents to offspring), and competitive struggle (because typically life is hard, between the scarcity of food and an abundance of predators, diseases, and so on). The *Origin of Species* showed how, by those means alone, existing species slowly and gradually become modified, in directions adapting them to the changing environments that they chance to encounter. As the modifications accumulate, generation after generation, species change – to the point where, eventually, new species can be recognized. There is no intervening from on high, and no overall plan.

Lyell found the *Origin of Species* hugely impressive. But he was not going to be easily converted or, as he joked to Darwin, "perverted" to the new theory. In Lyell's first letters he pressed Darwin on several points, among them the question of how to account for the rise in intelligence over the history of life on Earth. Was it really possible, Lyell asked, that intelligence could have risen from, say, the primitive level of a fish, or even the higher level of an elephant, all the way to the human level, by nothing other than the cumulative action of natural causes? Surely, he suggested, one has to assume the action of a "creative power," working alongside the ordinary causes, in order to account for so momentous a series of changes. Darwin disagreed. On his theory – which he called "natural selection" – the increase in intelligence followed from three facts which no one could deny: first, that individuals vary in how intelligent they are; second, that, at least sometimes, some of that variation is inheritable; and third, that it is an advantage to be more intelligent in the struggle to survive. Anyone who puts those together will see how, on average, even slightly more intelligent individuals – fish or elephant or whatever – can be expected not just to out-survive their less intelligent competitors but to out-reproduce them, and to pass the advantageous extra intelligence on to the next generation. As this selective process repeats itself generation after generation, average intelligence will slowly increase.

Darwin stressed how repugnant to him the calling in of a supernatural agency to do any of the work of explanation would be. "If I were convinced that I required such additions to the theory of natural selection," Darwin wrote to Lyell, "I would reject it as rubbish." Darwin went on, "But I have firm faith in it, as I cannot believe that if false it would explain so many whole classes of facts, which if I am in my senses it seems to explain." As for the facts about intelligence, and the theory's power to explain them, Darwin added

"I look at this process as now going on with the races of man; the less intellectual races being exterminated."[2]

Note the ease with which Darwin here slipped across what tends now to be thought of as a borderline between the biological and the social. That was not a distinction that he observed. Note too how straightforwardly he represented social inequality in his day – here, between the races, colonizing and colonized – as not merely natural but freshly intelligible under his theory, as the raw material of a naturally occurring progressive process. Acknowledging such passages in Darwin's writings, and others that we will examine shortly, we should feel obliged neither to accept social Darwinism as somehow intellectually and morally legitimate because it is "really Darwinian," nor, at the opposite extreme, to condemn Darwin as a sort of sinner, to be chastised for poor reasoning and held personally responsible for the human misery created by those he may, somehow or other, have influenced. Darwin's writings, public and private, came to inspire an enormous range of readings of their social implications. As we shall see, there was social Darwinism, but also socialist Darwinism. A list of opposing Darwinisms is easily generated: war-mongering Darwinism and peace-mongering Darwinism; feminist Darwinism and anti-feminist Darwinism . . . You name it, and someone, somewhere will have backed it, in the name of Darwinism; and someone else, no less ardently Darwinian, will have backed its contradiction. The challenge is to give that diversity its due without denying that there is a history of social Darwinism to tell – and, ideally, explain – as part of the history of Darwinism.[3]

## "Darwinism"

Curiously, "social Darwinism" has a more traditionally stable meaning than "Darwinism" itself. Sometimes "Darwinism" is treated as a synonym for "evolution." A history-of-science commonplace has it that in the *Origin of Species* Darwin furnished a new argument for an old idea, evolution, which went back at least to the days of Darwin's grandfather, the physician Erasmus

2 Lyell to Darwin, October 3 and 4, 1859, and Darwin to Lyell, October 11, 1859, Darwin Correspondence Project, letters 2501, 3132, and 2503; for discussion see Mike Dixon and Gregory Radick, *Darwin in Ilkley* (Stroud: History Press, 2009), Chapter 2.

3 Recent overviews rising to this challenge include Diane B. Paul, "Darwin, Social Darwinism and Eugenics," in *The Cambridge Companion to Darwin*, ed. Jonathan Hodge and Gregory Radick, 2nd edn. (Cambridge: Cambridge University Press, 2009), 219–245; and Mike Hawkins, *Social Darwinism in European and American Thought 1860–1945* (Cambridge: Cambridge University Press, 1997).

Darwin, and his French contemporary, the Paris naturalist Jean-Baptiste de Lamarck. Unquestionably, there was nothing new in the idea of the mutability of species, which can be found in ancient Greek and Roman writings. Yet the word "evolution" does not appear in the 1859 first edition of the *Origin of Species*. The term carried associations of planned directionality that, as we saw in the run-up exchange with Lyell, Darwin was keen to avoid. And though Darwin studied the work of his grandfather and others who wrote on species mutability or, to use a term favored at the time, "transmutation," the *Origin of Species*' two main proposals were at least as novel as the argument mounted in support of them.[4]

The first proposal was, as mentioned, the theory of natural selection, which Darwin named in analogy with stockbreeding by humans, or "artificial selection." Breeders had long taken advantage of the great diversity of inheritable variations that domesticated animals and plants exhibit, breeding only from those individuals that most closely approximated to whatever ideal the breeder had in mind. By assiduous, repeated selection, artful breeders had gradually brought into being the most amazingly diverse new varieties. Likewise, Darwin argued, in nature too individuals occasionally show inheritable variations, and those become the basis of new varieties. But what does the selecting in nature is what he called "the struggle for existence," as described by the political economist Thomas Robert Malthus. Under the knife-edge conditions of Malthusian struggle, those individuals who happen, by chance, to be that bit better adapted to their environments – by being even slightly faster, stronger, smarter, better camouflaged, or whatever – will have the advantage. They will tend to live long enough to become parents, and their offspring will tend to inherit their winning variations. But where, on the farm, artificial selection can build up those variations into new varieties of existing species, natural selection, working with infinitely greater precision over far larger timescales, can go further and create new species.

Darwin presented his second main proposal as following from the first. If natural selection operates on whatever variations happen to turn up, favoring them or not depending on the conditions of life that happen to prevail in a place at a particular time, then the overall timing and character of new species will be highly irregular, like the timing and character of the branches on a tree. Indeed, the image of a family "tree of life" for the genealogical, common-descent pattern

4 Jean Gayon, "From Darwin to Today in Evolutionary Biology," in *The Cambridge Companion to Darwin*, ed. Jonathan Hodge and Gregory Radick, 2nd edn. (Cambridge: Cambridge University Press, 2009), 277–301, pp. 279–281; and Jonathan Hodge, "Against 'Revolution' and 'Evolution,'" *Journal of the History of Biology*, 38(1) (2005), 101–121.

of relationships between species struck Darwin as a remarkably good fit. For just as all of the outermost tips of a tree can be traced back, with unbroken continuity, to ever larger, more comprehensive, and older groupings of branches, all the way back to a shared, single trunk, so living species can be grouped, with each other and with extinct species, until the whole of the history of life on Earth can be seen as forming one or, at most, a few family trees. When, in his letter to Lyell, Darwin wrote that his faith in natural selection was so strong in large part because he could not "believe that if false it would explain so many whole classes of facts, which if I am in my senses it appears to explain," he had in mind especially the way that, as he showed in the latter part of the *Origin of Species*, common ancestry threw light on mystery after mystery, and in a coordinated way. It explained, for example, why the birds on the Galápagos Islands belong to the same genera as the birds on the South American mainland, where environmental conditions were so very different; why the fossil species dug up from the rocks in a place so often resemble the species to be found living at the surface; why taxonomists found it so useful to group species into ever larger hierarchical groupings; and why early embryos of very different species look so much alike, only gradually differentiating during development.[5]

Whether one thinks the *Origin of Species* brought about a "Darwinian revolution" turns in part on what one thinks about two more or less separate issues: the question of what, in a general way, counts as a revolutionary change in science; and the question of how differently the history of science, and the world, would have gone had Darwin not published. At present there is no consensus on either issue.[6] Certainly the book was a publishing success, selling out on publication day, immediately going into a second edition (there were six in Darwin's lifetime), rapidly getting translated into the major European languages, and enjoying a huge and varied penumbral life via reviews and references in the amazingly diverse print culture of the middle of the nineteenth century.[7] Among those who read the book, some of them

5 Charles Darwin, *On the Origin of Species by Means of Natural Selection* (London: John Murray, 1859), available – along with everything else by Darwin, and a great deal of relevance by others – at Darwin Online, http://darwin-online.org.uk. On Darwin's life and times, see Adrian Desmond, James Moore, and Janet Browne, *Charles Darwin* (Oxford: Oxford University Press, 2007) and, more extensively, Janet Browne's two-volume biography, *Charles Darwin: Voyaging* (London: Jonathan Cape, 1995) and *Charles Darwin: The Power of Place* (London: Jonathan Cape, 2002).

6 See, for example, Hodge, "Against 'Revolution' and 'Evolution'"; and Peter J. Bowler, *Darwin Deleted: Imagining a World without Darwin* (Chicago: University of Chicago Press, 2013).

7 Alvar Ellegård, *Darwin and the General Reader: The Reception of Darwin's Theory of Evolution in the British Periodical Press, 1859–1872* (Chicago: University of Chicago Press, 1990 [1958]);

found it life-changing. "Depend upon it," the London anatomist Thomas Henry Huxley wrote to Darwin after devouring a presentation copy Darwin sent, "you have earned the lasting gratitude of all thoughtful men – And as to the curs which will bark & yelp – you must recollect that some of your friends at any rate are endowed with an amount of combativeness which . . . may stand you in good stead." Good as his word, Huxley went on to achieve lasting fame as "Darwin's bulldog," coining the term "Darwinism" in a laudatory April 1860 review of the *Origin of Species*, defending the Darwinian theory in a legendary confrontation with the Bishop of Oxford at a meeting of the British Association for the Advancement of Science a few months later, and publishing a major demolition of the notion of an insurmountable gap between humans and apes in 1863.[8] For Francis Galton, a cousin of Darwin's with a modest reputation as a geographer and meteorologist, the *Origin of Species* not only broke the spell of the old "argument from design" – from, that is, the excellent design of well-adapted species to the existence of a divine Designer (on the view that only the latter could explain the former) – but directed him toward what became a decades-long interest in the scientific study of hereditary improvement in humans. "I always think of you," Galton later wrote to Darwin, "in the same way as converts from barbarism think of the teacher who first relieved them from the intolerable burden of their superstition." (Galton eventually published a study of the statistical efficacy of prayer, concluding that ships with priests on them sank at the same rate as ships without priests.)[9] In Germany, the naturalist Ernst Haeckel rounded out a magisterial two-volume 1862 monograph on the microscopic radiolaria with a genealogical table, along with a note hailing Darwin's "epoch-making work" for "the immortal service of having brought the entire doctrine of relationships of organisms to sense and understanding." Like a German Huxley, Haeckel would become the public spokesperson for a cleric-baiting, apes-and-humans *Darwinismus*.[10]

and Thomas F. Glick (ed.), *The Comparative Reception of Darwinism* (Chicago: University of Chicago Press, 1988 [1974]).

8 Huxley to Darwin, November 23, 1859, Darwin Correspondence Project, letter 2544; James Moore, "Deconstructing Darwinism: The Politics of Evolution in the 1860s," *Journal of the History of Biology*, 24(3) (1991), 353–408; and Adrian Desmond, *Huxley: From Devil's Disciple to Evolution's High Priest* (London: Penguin, 1998).

9 Galton to Darwin, December 24, 1869, Darwin Correspondence Project, letter 7034; and Daniel J. Kevles, *In the Name of Eugenics: Genetics and the Uses of Human Heredity* (Cambridge: Harvard University Press, 1995 [1985]), 3–19.

10 Robert J. Richards, *The Tragic Sense of Life: Ernst Haeckel and the Struggle over Evolutionary Thought* (Chicago: University of Chicago Press, 2008), 71–72.

For every generalization one is tempted to make about Darwinism, it is easy to identify complications and counterexamples.[11] Yes, on the whole, Darwinism became associated with the attempt, led by the likes of Huxley, Galton, Haeckel, and other professionalizing modernizers, to extrude "Author of Nature" talk from science, and to exclude those who talked it from the scientific community. A perception of such us-versus-them animosity provoked the American clergyman Charles Hodge to publish *What Is Darwinism?* (1874), where he depicted Darwinism as an atheist, materialist worldview. Yet the Harvard botanist Asa Gray, Darwin's greatest advocate within the American scientific elite, always sought to defend a theistic Darwinism, wherein natural selection operated on variations that God designed so as to fill out the divine plan.[12] Reconciliations of Darwinism, broadly construed, and the spiritual life, broadly construed, were rife in the nineteenth century, and have remained so ever since. Likewise, on the whole, Darwinism continued to be identified mainly with natural selection and the genealogical tree of life. When, in 1889, seven years after Darwin's death, Alfred Russel Wallace, the "co-discoverer" of natural selection, published *Darwinism: An Exposition of the Theory of Natural Selection, with Some of Its Applications*, he deliberately promoted natural selection and its entailments as "pure Darwinism," ignoring what he judged to be Darwin's misguided enthusiasms for other evolutionary processes, such as sexual selection – where the females of a species choose the showier males – and the inheritance of modifications acquired during the lifetime of a parent through the habitual use or disuse of organs and faculties (so-called "Lamarckism"). But other Darwinians found that unpersuasively dogmatic.[13] It also gave a quite misleading picture of the scientific mainstream, which, from the mid 1860s onward, had embraced the challenge of reconstructing evolutionary genealogies with far greater unanimity and energy than it had ever devoted to natural-selection theory. Even Huxley and Galton had well-known doubts about the latter.[14]

11 On Darwinism over the long run, the best recent survey is Michael Ruse (ed.), *The Cambridge Encyclopedia of Darwin and Evolutionary Thought* (Cambridge: Cambridge University Press, 2013).

12 Richard Hofstadter, *Social Darwinism in American Thought* (Boston: Beacon Press, 1992 [1944]), 13–30, esp. 26.

13 Alfred Russel Wallace, *Darwinism: An Exposition of the Theory of Natural Selection, with Some of Its Applications* (London: Macmillan, 1889), viii. The *Origin of Species* was Darwin's hastily composed response to his discovery in 1858 that Wallace, working independently, had come up with a theory so similar to natural selection that public credit for the theory might go to Wallace if he published first.

14 Gayon, "From Darwin to Today in Evolutionary Biology," 281–283.

## Darwin, Spencer, and Marx

In *The Descent of Man, and Selection in Relation to Sex* (1871), Darwin's most important book after the *Origin of Species*, he acknowledged the different receptions that its main proposals had met with. His critics, he wrote, had helped him see "that in the earlier editions of my 'Origin of Species' I probably attributed too much to the action of natural selection or the survival of the fittest." He went on to state

> I had not formerly sufficiently considered the existence of many structures which appear to be, as far as we can judge, neither beneficial nor injurious; and this I believe to be one of the greatest oversights as yet detected in my work. I may be permitted to say as some excuse, that I had two distinct objects in view, firstly, to shew that species had not been separately created, and secondly, that natural selection had been the chief agent of change . . . Some of those who admit the principle of evolution, but reject natural selection, seem to forget, when criticising my book, that I had the above two objects in view; hence if I have erred in giving to natural selection great power, which I am far from admitting, or in having exaggerated its power, which is in itself probable, I have at least, as I hope, done good service in aiding to overthrow the dogma of separate creations.[15]

Strikingly, Darwin here used two terms absent from the 1859 *Origin of Species*. One is "survival of the fittest." The other is "evolution." The invention of the former, and the popularizing of the latter, were the work of Darwin's younger contemporary Herbert Spencer (1820–1903). Some who incline to exonerate Darwin for social Darwinism seek to blame it on Spencer, even urging that "social Spencerism" would be a historically more accurate name.[16] We shall come to Spencer and his thought more directly in a moment. For now, it is worth underscoring the Spencerian origins of what became two of the most enduringly Darwinian terms, which were adopted by Darwin himself.[17]

Three further points about the *Descent of Man* – where Darwin sought to apply the *Origin of Species* proposals in a detailed way to humankind – bear emphasis. First, he now made public what he had written privately to Lyell in

15 Charles Darwin, *The Descent of Man, and Selection in Relation to Sex*, 2 vols. (London: John Murray, 1871), vol. I, 152–153. See also the 1862 correspondence with Charles Kingsley discussed in Chapter 17 by Adam Kuper.

16 Eric Foner, "Introduction" to Richard Hofstadter, *Social Darwinism in American Thought [1860–1915]* (Boston: Beacon Press, 1992 [1944]), xix.

17 Diane B. Paul, "The Selection of the 'Survival of the Fittest,'" *Journal of the History of Biology*, 21(3) (1988), 411–424; and Peter J. Bowler, "The Changing Meaning of 'Evolution,'" *Journal of the History of Ideas*, 36(1) (1975), 95–114, esp. 106–109 and 111–112.

1859 about the "less intellectual" human races being exterminated, adding now that the most humanlike apes would likely also disappear. "At some future period, not very distant as measured by centuries," wrote Darwin,

> the civilised races of man will almost certainly exterminate and replace throughout the world the savage races. At the same time the anthropomorphous apes . . . will no doubt be exterminated. The break [between humans and the nearest animal species] will then be rendered wider, for it will intervene between man in a more civilised state, as we may hope, than the Caucasian, and some ape as low as a baboon, instead of at present between the negro or Australian and the gorilla.[18]

Second, and following the lead of the English journalist Walter Bagehot (editor of the *Economist*, then as now house publication for free-market liberalism), Darwin argued that it was not just higher intelligence but higher morality – in the sense of a greater willingness by individuals to make sacrifices for the good of the collective – which made for success in the struggle between the human races. Hence the ascent of humans up the "scale of civilisation," as Darwin put it, was as much cooperative as competitive.[19] Third, and relatedly, he saw future progress for our species as a matter of getting the balance right between, on the one side, strengthening hard-won moral instincts for giving aid to the less fortunate, and on the other side, keeping competitive pressures in civilized society intense. Balance was needed because too much of the one could undermine the other, to the detriment of the species. Yes, Darwin acknowledged (again following others, notably Galton), medicine and charity protect the weak in body, mind, and character from the full force of natural selection, and to that extent may actually erode overall biological quality, by creating conditions under which the weak not only out-survive but outbreed the strong. Yet the withdrawal of those institutions would so damage what is noblest in humans as to do more harm than good. It would be better to counteract whatever damage they bring by ensuring that struggle nevertheless remains severe around them. "There should be open competition for all men," Darwin wrote near the end of the *Descent of Man*, "and those most able should not be prevented by laws or customs from succeeding best and rearing the largest number of offspring."[20]

18 Darwin, *The Descent of Man*, vol. I, 201.

19 Darwin, *The Descent of Man*, vol. I, 161–167, p. 166; and Walter Bagehot, *Physics and Politics: Or, Thoughts on the Application of the Principles of "Natural Selection" and "Inheritance" to Political Society* (London: H. S. King, 1872), collecting articles he began publishing in 1867.

20 Darwin, *The Descent of Man*, vol. I, 167–184; and vol. II, 402–404, p. 403.

Spencer was a different kind of thinker from Darwin, from a different background; it is all the more fascinating to see how their ideas at certain points parallel and converge. Where Darwin was a globe-traveling geologist and naturalist whose inherited wealth meant he never had to earn a living, Spencer was a provincial railway engineer turned social commentator and speculative philosopher who lived by his pen. In a series of essays culminating in an 1851 book, *Social Statics*, he set out a version of what we would now call a radically libertarian social theory. (Among the journals Spencer worked for was the *Economist*.) On Spencer's diagnosis, the ultimate source of human unhappiness is the state. By its constant, freedom-limiting meddling in human affairs, it shields people from learning to deal in full with the complexities of life, leaving them poorly adapted to each other and to their wider circumstances. Take away government, make people fend for themselves, and, Spencer predicted, two things will happen. Under the new conditions of struggle, some people will work harder, gradually becoming not just better adapted but better in themselves, with stronger bodies, sharper minds, and enlarged capacities for moral action – refinements, Spencer believed, which they would pass on to their children in Lamarckian fashion. As for the rest, they will die, culled just as the weaker animals in a herd get culled. Such was Nature's way of maintaining quality control: the survival of the fittest, as he came to call it. What will emerge in the end is a far better society, indeed a utopia, where truly free people live peaceably and happily thanks to optimally adjusted bodies, minds, and morals.[21]

Over the course of the 1850s, Spencer went on to embed this social vision within a truly cosmic developmental-evolutionary scheme, drawing on the whole of the sciences of his day – from matter-and-motion physics to Malthus on populations – and presenting the universe, and everything within it, as progressing naturally from an initial state of undifferentiated homogeneity to ever higher states of differentiated, integrated heterogeneity. The heavenly nebula becomes the solar system; the first organisms on Earth become the whole of its plant and animal diversity; the fertilized egg becomes the complexly organized adult; the tribal "social organism," full of savagely warring egoists, becomes the well-ordered, industrially productive, and altruistically inclined civilization. At every scale, a seemingly stable

21 Herbert Spencer, *Social Statics: Or, the Conditions Essential to Human Happiness Specified, and the First of Them Developed* (London: Chapman, 1851); and Robert J. Richards, *Darwin and the Emergence of Evolutionary Theories of Mind and Behavior* (Chicago: University of Chicago Press, 1987), 243–268. On Spencer's life and thought see Mark Francis, *Herbert Spencer and the Invention of Modern Life* (Ithaca: Cornell University Press, 2007).

equilibrium eventually gives way to a period of differentiation and then a new equilibrium, featuring a higher level of integration, which in turn gives way . . . In the early 1860s, with public interest in Darwinism and its controversies on the rise, he launched himself on a multi-volume expansion of what he eventually called "the Synthetic Philosophy," beginning in 1862 with *First Principles* and then proceeding, over the next three decades, with books on the principles of biology, psychology (a reworking of an earlier book), sociology, and ethics. Not just "evolution" and "survival of the fittest" but "heredity," "sociology," and "altruism" are among the legacies to the English language of this now unread and unloved philosophical system. Darwin was ambivalent about Spencer, but Wallace was a fan, even naming his son after Spencer. It was Wallace who urged "survival of the fittest" on Darwin, arguing that it invited less confusion than "natural selection," which suggested to some that Nature was a kind of choosy deity.[22]

The penultimate volume of the Synthetic Philosophy came out in 1893. The next year, Enrico Ferri, an Italian Marxist and disciple of the Darwinian criminologist-anthropologist Cesare Lombroso (who regarded criminals as evolutionary throwbacks), published *Socialism and Positive Science (Darwin, Spencer, Marx)*. It includes one of the earliest instances of the term "social Darwinism." For Ferri, it meant not "survival of the fittest, in society as in nature" but, roughly, "the progressive class struggle picks up where the progressive natural struggle leaves off." He aimed, he explained, to show the congruence of the best of modern science and the best of modern socialism, acknowledging that in so doing he was putting Darwin's and Spencer's writings to a purpose that neither approved.[23] Indeed, the liberal Darwin was dismissive of socialist enthusiasm for his work, no less than he was about worries that it had vindicated a philosophy of "might is right." Spencer's early writings promoted common ownership of land, equal rights for women and children, anti-imperialism, and other socialist goals – it was

22 F. Howard Collins, *An Epitome of the Synthetic Philosophy*, with a preface by Herbert Spencer (London: Williams & Norgate, 1889); Greta Jones and Robert A. Peel (eds.), *Herbert Spencer: The Intellectual Legacy* (London: Galton Institute, 2003); and Paul, "The Selection of the 'Survival of the Fittest,'" 414–418. In Wallace's copy of the *Origin of Species*, now in Cambridge University Library, he repeatedly crossed out "natural selection" and penciled in "survival of the fittest."

23 Enrico Ferri, *Socialism and Modern Science (Darwin, Spencer, Marx)*, trans. R. R. La Monte (New York: International Library, 1900), with "social Darwinism" on pp. 51 and 56; Bellomy, "'Social Darwinism' Revisited," 42–51; and Naomi Beck, "The Diffusion of Spencerism and Its Political Interpretations in France and Italy," in *Herbert Spencer: The Intellectual Legacy*, ed. Greta Jones and Robert A. Peel (London: Galton Institute, 2003), 37–60, esp. pp. 52–57. The final volume of the Synthetic Philosophy came out in 1896.

part of the attraction for Wallace – but he had become more conservative over the years, and complained to an Italian newspaper about Ferri's book.[24] Marx, however, would have taken Ferri's side. Although mindful of the ways in which, as we shall see, Darwin's theory mirrored (and thereby potentially legitimated) English capitalism, Marx nevertheless admired the *Origin of Species* hugely, telling his close collaborator Friedrich Engels in December 1860 "this is the book which contains the basis in natural history for our view," and another correspondent around the same time that "Darwin's book is very important and serves me as a basis in natural science for the class struggle in history." Marx did not, as formerly believed, offer to dedicate the second volume of *Das Kapital* to Darwin. But Marx did, in 1873, send Darwin a signed copy of the second German edition. When, after Marx's death ten years later, Engels in a graveside speech in London's Highgate Cemetery declared that "[j]ust as Darwin discovered the law of evolution in organic nature, so Marx discovered the law of evolution in human history," he was thus upholding one of Marx's firmly held views.[25]

## "Social Darwinism"

By the time Ferri wrote, a comprehensive Darwinism-and-society bibliography would already have been long, multilingual, and nigh on impossible to sort into sensible categories. In 1894 alone, in Britain alone, the well-remembered contributions include the Scottish preacher Henry Drummond's best-selling, altruism-celebrating *Ascent of Man*; the Christian-Darwinian anti-socialist Benjamin Kidd's *Social Evolution*; a rejoinder to Kidd from the secular Darwinian socialist mathematician Karl Pearson; articles by the Russian anarchist Peter Kropotkin on "mutual aid" as a neglected theme in human as in evolutionary history; and the reprinting of the aged Huxley's brilliant 1893 lecture "Evolution and Ethics," now published with a lengthy prolegomenal essay, and arguing, contra Spencer, that evolution is irrelevant to understanding the human ethical condition. (Although

24 Paul, "Darwin, Social Darwinism and Eugenics," 229 and 237; Richards, *Darwin and the Emergence of Evolutionary Theories of Mind and Behavior*, 263–266; and Beck, "The Diffusion of Spencerism and Its Political Interpretations in France and Italy," 56. Spencer's anti-imperialism remained intact and potent to the end; see Chapter 19 by Jennifer Pitts.

25 Garland Allen, "Evolution and History: History as Science and Science as History," in *History and Evolution*, ed. Matthew H. Nitecki and Doris V. Nitecki (Albany: SUNY Press, 1992), 211–239, p. 211; and Richard Weikart, *Socialist Darwinism: Evolution in German Social Thought from Marx to Bernstein* (London: International Scholars, 1999), 15–51. See Chapter 17 by Adam Kuper for another, anthropological context in which Engels put Marx and Darwin together on the scientific summit.

Huxley believed no less firmly that civilization needed to be kept under the stern discipline of the struggle for existence, he lampooned Spencer's version of laissez-faire as "administrative nihilism," and Spencer himself as the sort of thinker for whom the definition of tragedy was a beautiful theory killed by an ugly fact.)[26] It was over the next twenty years that the term "social Darwinism" settled into its familiar meaning, coming to name just one option, or cluster of options, from within the available possibilities.

That misleading narrowing is one good reason to regret the fixing of the term's meaning in this way. Here are some others.

- It has almost always been a term of abuse, not self-description. "Social Darwinism" has mainly functioned as a label for a position held by other people, of whom the labeler disapproves. That does not mean, of course, that there is no such thing as social Darwinism, any more than the preference for racists not to describe themselves thus would mean that there is no such thing as racism. But caution is nevertheless in order.
- It suggests that there was nothing importantly social about Darwinism until there were social applications of it. The first in a long line of commentaries and historical studies complicating any simple science/society divide when it comes to Darwinism is a famous 1862 letter to Engels from Marx, pointing out how Darwin had seemingly rediscovered, among the animals and plants, his English industrial society with its Malthusian struggle, its division of labor, and so on. The Marxian historian of science Robert M. Young eventually used a slogan: "Darwinism *is* social."[27]
- It encourages a characterization of Darwinism that treats the theory of natural selection as its essence, and the socially harshest interpretations of that theory as ineluctable. Consider, however, that when Darwin's other main proposal, the genealogical, common-descent tree of life, is put in the spotlight, it is not the Malthusianism of his political class but its anti-slavery campaigning that becomes conspicuous.[28] Attention to Darwinian Lamarckism, sexual selection

26 Overviews of the British discussion include Piers J. Hale, *Political Descent: Malthus, Mutualism, and the Politics of Evolution in Victorian England* (Chicago: University of Chicago Press, 2014); and Thomas Dixon, *The Invention of Altruism: Making Moral Meanings in Victorian Britain* (Oxford: Oxford University Press, 2008).

27 Gregory Radick, "Is the Theory of Natural Selection Independent of Its History?," in *The Cambridge Companion to Darwin*, ed. Jonathan Hodge and Gregory Radick, 2nd edn. (Cambridge: Cambridge University Press, 2009) 147–172; and Robert M. Young, "Darwinism *Is* Social," in *The Darwinian Heritage*, ed. David Kohn (Princeton: Princeton University Press, 1985), 609–638.

28 See, respectively, Adrian Desmond and James Moore, *Darwin: The Life of a Tormented Evolutionist* (London: Michael Joseph, 1991); and Adrian Desmond and James Moore,

theory, and emphasis on the instinctual, unconscious mind provide comparable reorientations of perspective.[29]

- It invites all manner of arbitrary splittings and/or lumpings, e.g., the declaring of someone as not a social Darwinist because his or her ideas owe far more to Haeckel and Spencer than to Darwin, or at any rate to Darwin properly understood (whatever that means); or, in the other direction, the declaring of anyone who somehow naturalizes unequal or unpeaceable social relations as a social Darwinist, no matter the actual source inspirations, or affiliated politics, or whether the relations in question hold between individuals, sexes, classes, races, nations, species . . .
- It makes necessary a set of unsatisfactory distinctions marking it off from "eugenics," which was Galton's term for the scientifically managed breeding of better people. Eugenics was a worldwide phenomenon in the first half of the twentieth century, with appeal across the political spectrum.[30] Galton invented the term in 1883, but had been promoting the idea since 1865. He reckoned eugenics was needed because of the "morbific" tendencies accumulating in the human stock under the conditions of civilization.[31] There is thus a sense in which eugenics was a form of social Darwinism (as a response to the concern about the biological effects of diminished struggle), and a sense in which it is an alternative to social Darwinism (since laissez-faire is diminished rather than enhanced). Darwin, among others, moved seamlessly between what we, looking back, might be tempted to distinguish as eugenical talk and social-Darwinian talk.

Another candidate for this list is that social Darwinism is premised on a philosophical fallacy, known as "the naturalistic fallacy." For present purposes, we would do better to treat this point historically, as part of the same interlinked developments that led "social Darwinism" to become the disapprovingly used label for "survival of the fittest, in society as in nature." The Cambridge philosopher G. E. Moore introduced the term "naturalistic fallacy" in his 1903 book *Principia Ethica*. The fallacy, he argued, is to infer that because something is natural it must therefore be good. His main example,

*Darwin's Sacred Cause: Race, Slavery and the Quest for Human Origins* (London: Penguin, 2009).

29 See, for example, Evelleen Richards, *Darwin and the Making of Sexual Selection* (Chicago: University of Chicago Press, 2017); and Bellomy, "'Social Darwinism' Revisited," 96–97.

30 Diane B. Paul, *Controlling Human Heredity, 1865 to the Present* (New York: Humanity Books, 1998).

31 Francis Galton, "Hereditary Talent and Character," *Macmillan's Magazine*, 12(68 and 70) (June and August 1865), 157–166 and 318–327, p. 326; and Francis Galton, *Inquiries into Human Faculty and Its Development* (London: Macmillan, 1883), 24–25.

subjected to remorselessly forensic criticism, was Spencer's evolutionistic ethics, which equated whatever makes for survival in the struggle with what is best. Thus did the new analytic philosophy of the twentieth century – Moore's book was one of its key documents – begin by demolishing the claims of the synthetic philosophy of the previous century.[32]

Moore did not, however, use the term "social Darwinism" for the competition-is-natural-therefore-good view. That was the work, that same year, of a French sociologist, Célestin Bouglé. He used it again more prominently in 1904, lamenting the emergence recently of a new, naturalistic sociology emphasizing, as he put it, "the necessity of taking a completely hands-off attitude toward universal competition among the members of human societies; this can go by the name of social Darwinism." Whose sociology was that? In the first instance, Bouglé had in mind Comte Georges Vacher de Lapouge, a Montpellier-based proponent of a craniological "anthroposociology," and a one-man counterforce to general Gallic indifference to natural selection. From studies of French skulls down the centuries, Lapouge had concluded that the selection pressure which formerly had made French aristocrats not just distinctive but superior had relaxed after the French Revolution, bringing about degeneration. What was needed, he judged, was not Liberty, Equality, and Fraternity but Determinism, Inequality, and Selection. It was an illiberal and racist message, which, for the likes of Bouglé, fitted all too well with the worst tendencies in French public culture, as recently made visible during the Dreyfus affair. It was also picking up fellow travelers, notably the German craniologist Otto Amman, who likewise celebrated selection as Nature's great improver, and at all levels, from students taking exams, to workers getting promoted, to nations conquering others in war. In naming this new hyperselectionism "social Darwinism," Bouglé meant to sound the alarm about a position that, in his view, pretended to greater scientific authority than it had for its pessimistic take on human society.[33]

To sound an alarm is one thing; for others to take notice is something else. Those who did take notice were, like Bouglé, members of the international community of that newly professionalizing discipline, sociology, with

32 Michael Ruse (ed.), *Philosophy after Darwin: Classic and Contemporary Readings* (Princeton: Princeton University Press, 2009), 103–112 (for Spencer) and 141–152 (for Moore); and Suzanne Cunningham, *Philosophy and the Darwinian Legacy* (Rochester: Rochester University Press, 1996). I owe the observation about "synthetic"/"analytic" to Jon Hodge.

33 Bellomy, "'Social Darwinism' Revisited," 100–116; and Linda L. Clark, *Social Darwinism in France* (Tuscaloosa: University of Alabama Press, 1984), 143–158.

a shared concern for working out the relationship between biology and sociology. They wondered, for example, about whether the German biologist August Weismann's seemingly conclusive case against Lamarckian inheritance licensed pessimism about social change, or on the contrary, whether it enforced a helpful disciplinary division of labor between the biological and the social sciences. They disagreed with one another about whether eugenics was the solution to society's ills or just another symptom of its problems. And they discussed social Darwinism, under that name, as one of the options then being explored, especially in Continental Europe.[34] What transformed the fortunes of this minor sociological term was its extension, in the United States during the years of the Great Depression and its aftermath, backward to an earlier generation of American social commentators, and laterally to American biological scientists whose work was judged reactionary. William Graham Sumner, Spencer's long-deceased advocate at Yale (and Yale's first professor of sociology), became a social Darwinist. So did Earnest Hooton, a Harvard physical anthropologist who, in his book *Why Men Behave Like Apes and Vice Versa* (1940), had decried the "biological havoc" being wrought in Europe by equality-preaching humanitarian groups. A reviewer was unsparing: "Such characteristic antidemocratic, ruthless, social-Darwinian utterances indicate why Hooton has become the scientific playboy of fascist and neo-fascist groups in this country."[35]

Extension at an enduringly large scale took place shortly thereafter. *Social Darwinism in American Thought* (1944), a Ph.D.-dissertation-turned-first-book by the young American historian Richard Hofstadter, was an instant classic. In Hofstadter's version, Spencer served as the house philosopher for the capitalist free-for-all that was Gilded Age America. Spencer's devotees included not merely university professors such as Sumner but the great robber-baron industrialists of the age. In 1889 the steel magnate Andrew Carnegie wrote of the law of competition

34 Bellomy, "'Social Darwinism' Revisited," esp. 2–5, 38, 54–55, 63–100, and 116–126; and Maurizio Meloni, *Political Biology: Science and Social Values in Human Heredity from Eugenics to Epigenetics* (London: Palgrave Macmillan, 2016), 28–29 and 131–135.

35 Both Sumner's and Hooton's taggings as social Darwinists were the work of Bernhard J. Stern, a Marxian sociologist of medicine based (like Richard Hofstadter) at Columbia University, then the American headquarters of progressive social science. See Bernhard J. Stern, "William Graham Sumner," *Encyclopaedia of the Social Sciences*, ed. Edwin R. A. Seligman (New York: 1930–1935), vol. XIX, 463; and Bernhard J. Stern, "Recent Literature of Race and Culture Contacts," *Science and Society*, 5(2) (1941), 173–188, p. 181. The latter provoked a fascinating exchange of letters on social Darwinism, with contributions from J. B. S. Haldane and Ashley Montagu.

> [W]hile the law may be sometimes hard for the individual, it is best for the race, because it insures the survival of the fittest in every department. We accept and welcome therefore, as conditions to which we must accommodate ourselves, great inequality of environment, the concentration of business, industrial and commercial, in the hands of a few, and the law of competition between these, as being not only beneficial, but essential for the future progress of the race.[36]

Of course, this same period in American history is often called "the Progressive Era," as Hofstadter well knew. But though he gave more space in the book to the critics of social Darwinism than to social Darwinism *per se*, and allowed that there were progressive as well as conservative readings of the Synthetic Philosophy, he was clear about the main drift. "Conservatism and Spencer's philosophy," insisted Hofstadter, "walked hand in hand . . . Acceptance of the Spencerian philosophy brought with it a paralysis of the will to reform." And he called some impressive witnesses for the prosecution, notably the Supreme Court justice Oliver Wendell Holmes. In dissenting from a court ruling that, in the name of the fourteenth amendment of the US constitution, struck down an attempt to regulate working hours, Holmes observed drily that "the fourteenth Amendment does not enact Mr Herbert Spencer's *Social Statics*."[37]

It was the postwar success of Hofstadter's book that put the now-familiar meaning of "social Darwinism" into wider circulation. His message that Spencer, not Darwin, was ultimately responsible for social Darwinism suited an era coping with revelations about the Nazi abuse of biology and eager to see in the new, genetical Darwinism – which had no truck with the old race hierarchies – a reclaiming of the scientific and moral high ground. From the sociobiology debates of the 1970s to the present, "social Darwinist" has remained an epithet flung in an accusatory way at opponents whose views are judged too close for comfort to an ideology that many believe lay behind Auschwitz.[38]

36 Andrew Carnegie, "[The Gospel of] Wealth," *North American Review*, 148 (1889), 653–665, p. 655. Cf. Robert J. Bannister, *Social Darwinism: Science and Myth in Anglo-American Social Thought* (Philadelphia: Temple University Press, 1979; with a new preface 1988), 82–86, where Carnegie emerges as at best a piecemeal Spencerian. More or less everything in Hoftstadter's book is subjected to annihilating revisionism in Bannister's.

37 Hofstadter, *Social Darwinism in American Thought*, 46–47; and Thomas C. Leonard, "Origins of the Myth of Social Darwinism: The Ambiguous Legacy of Richard Hofstadter's *Social Darwinism in American Thought*," *Journal of Economic Behavior & Organization*, 71(1) (2009), 37–51.

38 Bellomy, "'Social Darwinism' Revisited," 8–9 and 14–16; and Meloni, *Political Biology*, 136–187. At the time of writing, the Googling of "Trump Social Darwinism" is an efficient way of gauging the term's currency.

## The Case of Germany and Austria

The linking of Nazi fascism and social Darwinism, so named, dates back to World War II. It is explicit in the criticism of Hooton just quoted, from 1941. That same year saw the publication of *From Luther to Hitler*, by the political historian and military man William McGovern. An early and widely read entry in the explaining-Hitler genre, the book included a chapter on German social Darwinism, depicted as the latest, scientifically updated expression of old blood-and-soil, master-race fascist impulses that ran deep in German culture. When Hofstadter was at work on his dissertation on social Darwinism, there was thus no historical topic that was more topical.[39] In the decades since then, the question of Nazism's debt to Darwinism has, if anything, become still more emotionally charged and polemically complex. Even so, the best of the accumulated scholarship has clarified many of the facts to be contended with as well as the difficulties in interpreting them.[40]

For the German-speaking lands in the nineteenth century, the general European pattern – with diverse liberal-to-left readings of Darwinism's social implications bulking large, and right-of-center readings a conspicuous presence mainly toward century's end – holds good. Nineteenth-century Germany was where Darwinism and socialism had the greatest uptake in Europe; indeed, to a large extent, they marched together. Marx and Engels were representative of the eagerness with which German socialists, for all their differences, embraced Darwinism, from the early 1860s onward.[41] In the wake of the supposedly Darwinism-inspired Paris Commune, the notion that Darwinism *entailed* socialism became so widespread that in the late 1870s Haeckel sought to reassure his colleagues in the German scientific establishment that it was not true. Against fantasies of social equality, Haeckel insisted, Darwinism taught that, in society as in nature, the struggle for existence pitilessly elevates the born aristocrats, consigning the rest to death. There was nothing democratic, let alone socialist, about the Darwinian process.[42]

39 William McGovern, *From Luther to Hitler: The History of Fascist–Nazi Political Philosophy* (Boston: Houghton Mifflin, 1941); and Bannister, *Social Darwinism*, 249–251.

40 For an insightful and even-handed overview up to the mid 1990s, see Richard J. Evans, "In Search of German Social Darwinism," in his *Rereading German Social History: From Unification to Reunification, 1800–1996* (London: Routledge, 1997), 119–144.

41 Evans, "In Search of German Social Darwinism," esp. 120–132; and Weikart, *Socialist Darwinism*.

42 Ernst Haeckel, *Freedom in Science and Teaching*, preface by T. H. Huxley (London: Kegan & Paul, 1879), 90–94, excerpted (from a differently titled French edition) in Ferri, *Socialism and Modern Science*, 14–17.

Haeckel's pronouncements along these lines can make him sound like a proto-Nazi – an impression compounded when one considers, for example, his energetic promotion of a scheme of racial hierarchy placing the German race at the pinnacle, and his belief (which Hitler later shared) that the nation's criminals should be killed in order to balance out the deaths in war of the finest biological specimens. Yet Haeckel influenced many people with nothing like those politics: consider only, on the other side of the German–Austrian border, Sigmund Freud, from an emancipated Jewish background, whose Darwinism was not just fundamental to psychoanalysis (especially the signature Haeckelian evolutionary doctrine, "ontogeny recapitulates phylogeny," i.e., the growing individual climbs up the evolutionary ladder of the lineage), but was part and parcel of Freud's identity as a modern liberal. Furthermore, Haeckel was, on Darwinian grounds, a pacifist. Throughout World War I, the Monist League he founded backed the case for pacifism. Far from celebrating Haeckel, the Nazis purged his books from public libraries.[43]

Beyond Haeckel himself, there was nevertheless, around the turn of the century, a rightward shift in the German-speaking public discussion of Darwinism, along with heightened self-consciousness about the biological condition of the *Volk* and the need to safeguard it. Out of sixty submissions to an essay contest sponsored in 1900 by the arms-maker Krupp on the question "What can we learn from the theory of evolution about domestic political development and state legislation?," a mere handful took a socialist line, and just one a liberal line. The rest argued in various ways for greater state control of human affairs. The idea that, for Darwinian reasons, the state ought to keep criminals from reproducing, by segregation if not sterilization or extermination, became a commonplace. An attempt to legalize abortion failed, with opponents underscoring the need to keep the German birth-rate high enough to supply good soldiers in the next war.

By the time of World War I, an aggressive, militaristic, racialized Darwinism, nurtured in the meetings and publications of the Pan-German League and combining – after the fashion of Lapouge, Ammon, and others – the race fatalism of the mid-century French thinker Joseph Arthur de Gobineau with Darwinian (and, for German biologists especially, Weismannian) selectionism

43 Evans, "In Search of German Social Darwinism," esp. 119–120 and 125–126; and Frank J. Sulloway, *Freud, Biologist of the Mind: Beyond the Psychoanalytic Legend* (London: Basic Books, 1979), esp. 258–264. Richards, *The Tragic Sense of Life*, 244–247 and 269–276, points out that Haeckel, no anti-Semite, ranked Jews near to Germans in his hierarchy.

and progressivism, had become rife in the German high command.[44] A witness to their biological-necessity-of-war table talk, stressing the creative potential of prolonged war to test the fitness of nations and so advance the species, was an American evolutionary biologist, Vernon Kellogg, who was there with a US-led humanitarian relief effort in Belgium and northern France. Kellogg arrived in Europe in 1915 a pacifist, but left convinced that, for the sake of the species, Germany needed to be destroyed, the ideology of its leaders utterly discredited.[45]

In the event, of course, the defeat of the Central Powers, and the extreme economic and political crises thus unleashed across the German-speaking lands, fed a sense of national humiliation in the 1920s that, for some, only increased the attraction of biologistic diagnoses and prognoses. (State-of-the-nation discussions of the day moved easily across medical, evolutionary, botanical, and zoological imagery and terminology.) For too long, the German people had permitted degenerate elements, from within and without, to dilute the Aryan purity that was their evolutionary birthright and destiny, and had suffered the consequences. The way forward was clear. Here was how Hitler put the point, in *Mein Kampf* (1925), in a (representatively repellent) passage on the duty of the Aryan not to mate with the Jew:

> The struggle for the daily livelihood leaves behind in the ruck everything that is weak or diseased or wavering . . . And this struggle is a means of furthering the health and powers of resistance in the species. Thus it is one of the causes underlying the process of development towards a higher quality of being. If the case were different the progressive process would cease, and even retrogression might set in . . . If nature does not wish that weaker individuals should mate with the stronger, she wishes even less that a superior race should intermingle with an inferior one; because in such a case all her efforts, throughout hundreds of thousands of years, to establish an evolutionarily higher stage of being, may thus be rendered futile.[46]

44 Paul, "Darwin, Social Darwinism and Eugenics," 238–239; and Evans, "In Search of German Social Darwinism," 132–137.

45 Vernon Kellogg, *Headquarters Nights* (Boston: Atlantic Monthly, 1917), esp. 22–23, 28–33, and 53. Pre-war, pro-war German Darwinism can be sampled in Friedrich von Bernhardi, "The Right to Make War," from his *Germany and the Next War* (London: Edward Arnold, 1912), in *Philosophy after Darwin: Classic and Contemporary Readings*, ed. Michael Ruse (Princeton: Princeton University Press, 2009), 134–137. On the wider debate, see Paul Crook, *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, 1994). On the role of Kellogg's book in the making of American creationism, see Stephen Jay Gould, "William Jennings Bryan's Last Campaign," in his *Bully for Brontosaurus: Reflections in Natural History* (New York: W. W. Norton, 1991), 416–431.

46 Adolf Hitler, *Mein Kampf*, trans. James Murphy (London: Hurst & Blackett, 1939). On Hitler, Nazism, and Darwinism, see Richard Weikart, "The Role of Darwinism in Nazi Racial Thought," *German Studies Review*, 36(3) (2013), 537–556, drawing on his *From*

When, after the further crises of the Depression, Hitler came to power in early 1933, he received a letter of congratulations from Alfred Ploetz, who hailed him as "the man who had the will to implement racial hygiene." The "racial" in "racial hygiene" – the term mainly used in Germany for "eugenics" – was indeterminate between the German race and the human race when Ploetz set up the Racial Hygiene Society in 1905, and the German movement made room for the usual range of political motivations. (Ploetz was a socialist, who had lived for a time in a utopian community in Iowa.) Only after World War I did the Aryan supremacists gradually gain the upper hand. Even so, up to 1933, German racial hygienists looked on with envy at what was happening in the United States, where compulsory sterilization of the insane and "feeble minded" (in the language of the day) was increasingly the norm, and where many states had laws preventing interracial marriage on the books. Under the new Nazi regime, however, they made up for lost time rapidly, instituting compulsory sterilization on a scale that soon dwarfed American efforts but going much further. The innovations of the 1930s included not just laws forbidding interracial marriage but a breeding program pairing racially "pure" German women with SS officers, the introduction of the death penalty for a huge range of even minor crimes, and then euthanasia on a mass scale for the mentally and physically disabled.[47]

What, if anything, has Darwinism got to do with explaining the next, unprecedented step, into systematic genocide? It is easy enough to characterize two opposite, and equally unappealing, options. At the one pole, the claim that Darwinism was somehow *responsible* for the death camps – as though, once the theory of natural selection began circulating, death camps would eventually follow, somewhere or other, sometime or other – is typically insinuated rather than stated, as part of a wider attack on the scientific status of evolution. At the other pole is the claim that Darwinism had *nothing to do* with the death camps – perhaps because, as a recent recasting has it, Hitler was no Darwinian, since everything in *Mein Kampf* can plausibly be traced to

*Darwin to Hitler: Evolutionary Ethics, Eugenics, and Racism in Germany* (London: Palgrave Macmillan, 2004) and *Hitler's Ethic: The Nazi Pursuit of Evolutionary Progress* (London: Palgrave Macmillan, 2009).

47 Paul, *Controlling Human Heredity*, 20 and 84–91; Paul, "Darwin, Social Darwinism and Eugenics," 236 and 239; Richard Evans, "From Racial Hygiene to Auschwitz," in his *Rereading German Social History: From Unification to Reunification, 1800–1996* (London: Routledge, 1997), 145–148, quotation from Ploetz on p. 147; and James Q. Whitman, *Hitler's American Model: The United States and the Making of Nazi Race Law* (Princeton: Princeton University Press, 2017).

some other source, and nothing in it suggests that Hitler knew, let alone understood, the *Origin of Species*' distinctive proposals.[48]

A better answer, unsurprisingly, lies somewhere between these extremes. Not just any history would have led a nation from Darwinism to the death camps; nor is the challenge of understanding the German–Austrian case well addressed by asking whether Hitler would have passed an exam on the *Origin of Species*. Among the documents we should consider beyond *Mein Kampf* is the Wannsee Protocol, a set of minutes drawn up by the Nazi functionary Adolf Eichmann from a meeting that took place on January 20, 1942. It is the closest thing ever found to a document spelling out the logic of Nazi genocide. And that logic is, distressingly but distinctly, Darwinian. About midway through, it is explained that, with the Jews having been shipped to the East and forced into slave labor, many of them will undoubtedly die through attrition – at which point the remainder will have to be "treated accordingly." Why? Because this remainder will be "a product of natural selection," and so potentially the nucleus of a revived Jewish race, now hardier than ever.[49]

The final word should be given not to Eichmann but to a brilliant historian of Nazi Germany, Richard Evans. It would, Evans counsels, be a mistake to see Nazi invocations of the struggle for existence, the survival of the fittest, and so on as a kind of window dressing – "merely a cover for state terrorism," as he puts it – for "it also provided a discursive practice which allowed that terrorism to be exercised, and helped remove all restraint from those who directed it, carried it out and drove it on, by persuading them that what they were doing was justified by history, science and nature."[50]

48 Robert J. Richards, "Was Hitler a Darwinian?," in his *Was Hitler a Darwinian? Disputed Questions in the History of Evolutionary Theory* (Chicago: University of Chicago Press, 2013), 192–242.

49 "The Wannsee Protocol," tr. Dan Rogers (revising the text made for the Nuremberg Trials), available online at the Jewish Virtual Library, www.jewishvirtuallibrary.org/the-wannsee-protocol; and Stephen Jay Gould, "The Most Unkindest Cut," in his *Dinosaur in a Haystack: Reflections in Natural History* (London: Jonathan Cape, 1996), 309–319.

50 Evans, "In Search of German Social Darwinism," 138.