Darwin Fallen Among Political Economists

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...I read many years ago some books on political economy, and they produced a disastrous effect on my mind, viz., utterly to distrust my own judgement on the subject and to doubt much everyone else's judgement! (Letter from Charles Darwin to Alfred Russel Wallace, 12 July 1881)

I

Towards the end of his life Charles Darwin received an enthusiastic recommendation that he read Henry George's recently published book, Progress and Poverty. It came from the co-discoverer of the theory of natural selection, Alfred Russel Wallace, who had increasingly immersed himself in the writings of political economists. George's spectacularly successful book proved to his and many other people's satisfaction that private property in land was the underlying cause of the coincidence of progress and poverty. It is clear from Darwin's response that, while he recognized that private landownership posed problems requiring solution, he could not share Wallace's enthusiasm for political economy: “...I feel pretty sure that Mr George's book will only make my mind worse confounded than it is at present.” This was not a sign of late-life weariness. Seven years earlier Darwin had given a similar response to another devotee of the science, Karl Marx, when he found himself the embarrassed recipient of a copy of the second German edition of Das Kapital: “I thank you for the honour which you have done me by sending me your great work on

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1 Read 26 April 2001. I am grateful for the comments of John Burrow and Stefan Collini on an earlier version of this talk.

2 For Wallace's account of the development of his ideas on these matters see My Life; A Record of Events and Opinions, 2 vols. (New York: Dodd, Mead and Company), 2 (1905): 107, 111, 253–92. For Darwin's response to Wallace's suggestion see ibid., 14–15.
Capital; and I heartily wish that I was more worthy to receive it, by understanding more of the deep and important subject of political Economy.”

Despite these disclaimers, Darwin’s affiliations and sympathies with political economy—actual, presumed, or imputed—continue to play a large part in the writings of his recent biographers and those committed to a contextualist approach to the history of the natural sciences. The part played by Robert Malthus’s Essay on Population in the process by which Darwin arrived at his theory of natural selection occupies a central position in all such studies. It has been examined exhaustively over the years, particularly since 1967, when the pages torn from Darwin’s notebooks on the transmutation of species were restored to their original place. This enabled historians to date precisely when Darwin read Malthus’s Essay in his journey towards what he described, in a much-quoted phrase, as “a theory by which to work.” Taken in conjunction with the publication of other notebooks showing Darwin’s interest in the work of Scottish moral philosophers—the notes he later used when writing the Descent of Man—they mark the beginning of one of the most intriguing episodes in the tangled relationship between the history of biology and the history of those sciences that centre on man as psychological, social, and economic animal. The relationship is one of mutual exchange and another kind of transmutation, with some of the progeny—social Darwinism, eugenics,
and sociobiology—proving to be controversial at best, despised monsters at worst.

As a student of the intellectual history of the period during which Darwin found himself drawn into the deliberations of moral philosophers and political economists, I shall be casting a sceptical eye over some of the more confident assertions that have been made in recent writings on Darwin by those pledging allegiance to a “contextual” approach to the history of the biological sciences. Since Malthus and political economy more generally were undoubtedly an important part of Darwin’s context, it seems worth distinguishing between what seems essential and what is merely gratuitous.

II

The autobiographical evidence of Darwin’s interest in Malthus is well known. My own favourite piece of evidence comes from letters Darwin wrote in 1860 after being attacked by Samuel Haughton, then professor of geology at Dublin. Haughton is now seen as a fairly typical example of the kind of physical scientist who thought that other sciences could be shown their subservient role through the exercise of mathematical reasoning. He was in no doubt that the theory of natural selection advanced by Darwin in the *Origin of Species* was “borrowed from Malthus’s doctrine of Population,” and that it would therefore “find acceptance with those Political Economists and Pseudo-Philosophers who reduce all the laws of action and human thought habitually to the lowest and most sordid motives.”

Darwin was being tarred with a “Malthusian” brush based on an uncomplimentary understanding of Malthus’s way of thinking. Far from arousing indignation, however, it brought a response from Darwin that united him with Malthus:

> What has Haughton done that he feels so immeasurably superior to all of us wretched naturalists and to all political economists, including the great philosopher Malthus? . . . It consoles me that he sneers at Malthus, for that clearly shows, mathematician though he may be, he cannot understand common reasoning. By the way, what a discourag-

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Haughton has the distinction of being the first to review the joint production of Darwin and Wallace that appeared in the *Journal of the Linnean Society* in 1858. The comment on the *Origin of Species* originally appeared in the *Natural History Review* in 1860, was reprinted in the *Annals and Magazine of Natural History* in 1863, and is now included in D. L. Hull, *Darwin and his Critics: The Reception of Darwin’s Theory of Evolution by the Scientific Community* (Cambridge, Mass.: Harvard University Press, 1973), 217–27; see 222 for the comment quoted.
ing example Malthus is to show, during what long years the plainest case may be misrepresented and misunderstood.\textsuperscript{8}

Haughton proved wrong in thinking that political economists as a tribe would extend a special welcome to Darwin’s theory on grounds of its borrowings from and alleged analogies with their own characteristic ways of thinking. As we shall see, there are some notable mismatches between the actual opinions of political economists and what they are supposed, in much of the contextual literature on Darwin, to have proclaimed. Political economists were no more united in their approach to their discipline than biologists were during this period; they came in different shapes and sizes and were divided along various theoretical, political, and methodological lines. Conclusions and attitudes cannot, therefore, be ascribed to the tribe as a whole, almost as a matter of general professional formation or deformation. It also has to be borne in mind that while a Christian version of political economy can be clearly associated with Malthus, by the time Darwin’s \textit{Origin} appeared in 1859 political economy had largely become a secular form of inquiry: biology was still at the beginning of the process that would lead to this state of affairs. Later in the century, it is true, some economists joined the growing band of Darwin’s admirers, but their use of biological analogies relied more on Herbert Spencer’s Lamarckian version of the theory of evolution than on Darwin.\textsuperscript{9}

Haughton has nevertheless acquired a host of modern followers, even though they do not share the essentially Christian basis of his misgivings about explanations of natural and social phenomena derived from what he described as “sordid motives.” Indeed, Marx and Engels were to make similar remarks in the course of regretting the hold that Malthus had exerted on Darwin.\textsuperscript{10} Tarring Darwin with a Malthusian

\textsuperscript{8}The quotation splices together two letters to Joseph Hooker and Charles Lyell, dated 5 and 6 June 1860; see \textit{The Collected Correspondence of Charles Darwin}, edited by F. Burkhardt et al. (Cambridge: Cambridge University Press), 8: 238, 242. See also the letter to Asa Gray, 8 June 1860: “[Haughton’s] article is a curiosity of unfairness and arrogance; but, as he sneers at Malthus, I am content, for it is clear he cannot reason.” This remained Darwin’s position; see letter to Wallace on the misrepresentation of Malthus in F. Darwin, ed., \textit{Life and Letters of Charles Darwin} (New York: Appleton, 1891), 2: 230.


\textsuperscript{10}See the quotations from letters and other material in R. L. Meek, \textit{Marx and Engels on Malthus} (London: Lawrence and Wishart, 1953).
brush of indiscriminate dimensions is still not a bad description of what has happened in recent biographies of Darwin. And since guilt by association works both ways, Malthus has also been tarred with the social Darwinist brush.\textsuperscript{11} Let me sketch some of the ways in which Darwin emerges from this process, beginning with the less controversial propositions.

When Darwin began his reading of Malthus’s *Essay* on 28 September 1838, he was struck by the “warring of the species” in the natural world that would result from an increase in populations controlled only by those checks that Malthus had described as “positive” as opposed to “preventive” or “prudential”—those checks resulting in premature death. Charles Lyell’s *Principles of Geology*, together with his own observations as a naturalist, had prepared Darwin for the “universal struggle for existence” in which “the right of the strongest eventually prevails.” But Malthus’s geometric ratio supplied exactly the right-shaped hammer for the “hundred thousand wedges” needed “to force every kind of adapted structure into the gaps in the oeconomy of nature, or rather forming gaps by thrusting out weaker ones.” Here was an agreement between what Malthus had posited with regard to subsistence and unchecked increase in botanical and human populations, and what Darwin needed in order to demonstrate the possibilities inherent in natural selection, namely a law of nature operating constantly over time to explain population and depopulation, and the “extermination and production of new forms.”\textsuperscript{12} The “struggle for existence” now occupied a central role in the theory, with the crucial part of the struggle taking place between individuals at the *intraspecies* level.

We have here an intriguing mismatch between Malthus and Darwin, because the former was chiefly concerned with the consequences of the *interspecies* struggle generated by food scarcity for the race as a whole, a struggle that was more severe in its consequences for that large proportion of the population whose entitlement to subsistence derived from the sale of their own labour. Those at the top of the heap were not seen as “fitter” or more able, merely as those whose possession of higher incomes protected them from rising food prices and made them better able to exercise prudence with regard to marriage.\textsuperscript{13}

Mismatch or not, Darwin’s reading of Malthus is now agreed to have

\textsuperscript{11} For a particularly strident example, see A. Chase, *The Legacy of Malthus: The Social Costs of the New Scientific Racism* (New York: Alfred A. Knopf, 1997).

\textsuperscript{12} The quotations are taken from Notebook D; see P. Barrett, ed., op. cit., 375–76.

\textsuperscript{13} On this subject see P. J. Bowler, “Malthus, Darwin, and the Concept of Struggle,” *Journal of the History of Ideas* 37 (1976): 631–50. It assumes even greater importance when we consider the Galtonian component of Darwin’s views in *Descent of Man* (at nn. 56–57 below).
been a crucial move in the journey to natural selection. And it was this intraspecies struggle that was later to be characterized, in the fateful phrase Darwin borrowed from Spencer, as “survival of the fittest.” Fateful because fitness acquired moral overtones that Darwin was usually cautious to avoid—before he went on to write *Descent of Man* at least. Fateful too because it gave precedence to the one form of competition that ended ultimately in extinction. In both respects the usage was at odds with Darwin’s appreciation of the complexity of the selection process in nature, where superfecundity was associated with the ecological interdependence of species and with the ever-branching tree of life forms.

In 1852 Spencer had published an essay entitled “A Theory of Population, deduced from the General Law of Animal Fertility,” in which he employed the Malthusian principle in conjunction with a neurophysiological interpretation of Adam Smith’s ideas on the increasing specialization of function associated with the division of labour. The result was a homeostatic theory of the progress of civilization. The feedback principle, or “general law of adaptation,” was invoked to show that population pressures would stimulate progressive improvements in skill, intelligence, and production that would put an end to the original Malthusian dilemma at some unspecified point in the future. Although Spencer did not on this occasion use the phrase later to be connected with his name, he did equate superior powers of self-preservation with “the select of their generation,” leading to “complete fitness for social life” via a weeding-out process. If we then add Wallace’s tribute to Malthus in his own independent journey towards the theory of natural selection, we arrive at a plausible set of connections between Malthus, Spencer, Darwin, and Wallace.

That these connections are often plausible in a purely circumstantial sense can be indicated briefly by pointing out that evolutionary theories in biology have a much longer history than this lineage implies, and that Spencer arrived at his own position independently via Lamarck rather than Darwin. Evolutionary theories of human societies have

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14 Perhaps it should be added that it was entirely typical of Spencer, though not of Darwin, that he should fail to make his debts to Smith and Malthus clear by naming them in the essay; see J.D.Y. Peel, *Herbert Spencer: The Evolution of a Sociologist* (London: Heinemann Educational Books, 1971), 137–39.


16 Wallace’s tribute to Malthus’s influence can be found in *My Life* 1: 232, 361–62; see also his contribution to *The Darwin-Wallace Celebration held on Thursday, 1st July, 1908 by the Linnean Society of London* (London: Linnean Society, 1908), 111–18.

equally long pedigrees, some of them, *pace* Haughton, with impeccable Christian credentials. Malthus himself had advanced his own progressive theodicy in the first *Essay*—a theological anticipation of Spencer’s homeostatic ideas—as an answer to those who charged that the population principle was incompatible with any harmonious idea of nature. For Malthus, population pressure had provided the initial stimulus to mind needed to lift man out of his primal sloth; and since necessity continued to act as a spur to invention, God’s beneficence in ruling the world by fixed, or what he would have termed Newtonian, laws of nature was not impugned by the partial evils resulting from the population principle. More orthodox Anglican versions of this idea were later to be formulated by a future Archbishop of Canterbury, John Bird Sumner, in his *Records of Creation*.19

So far, to revert to an older dichotomy, we have been considering an “external” influence on what is essentially a story “internal” to biology. Even that proposition has generated controversy among historians of biology, but it is as nothing compared with the issues that emerge once one poses the following question: In what sense is it necessary, perhaps even essential, to maintain that Darwin’s use of Malthus’s population principle entailed acceptance of some cultural assumptions that made *laissez-faire* industrial competition and free trade, not merely observable but desirable facts of Victorian life during the period in which the *Origin of Species* was in gestation?20 Marx and Engels, as already noted, had made the connection between the “animal king-

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20 I confine myself in what follows to gestation rather than to diffusion. In doing so I adhere to the distinction between the context of discovery and the context of validation. Whether or not this distinction is water-tight (Darwin’s concern about not arousing unnecessary controversy, particularly where religious susceptibilities were concerned, clearly makes anticipated reception and mode of exposition interdependent), it has the simple merit of recognizing that later readers may have had reasons for accepting a proposition or point of view that are quite separate from those Darwin may have had in mind during the gestation period. It also allows for what is hinted at above, namely, that what Darwin found in Malthus may not have been central to what Malthus was maintaining in the *Essay* as a whole.
dom” and “bourgeois society” in Darwin’s work, and it has featured in
many contextual studies of Darwin ever since, partly as a consequence.21
But one of the earliest examples owes nothing to Marx. It can be found
in remarks made during the fiftieth birthday party for the Origin of
Species organized by the Cambridge Philosophical Society. J. Arthur
Thompson, professor of natural history at Aberdeen, speaking about
Darwin’s predecessors, stated that “at a time when pressure of popula-
tion was practically interesting men’s minds, Darwin, Wallace, and
Spencer were being independently led from a social problem to a bio-
logical theory.” Quoting his mentor, Patrick Geddes, a pupil of T. H.
Huxley, Thomson also endorsed the idea that “the prevalent severity of
industrial competition, and those phenomena of the struggle for exist-
ence which the light of contemporary economic theory has enabled us
to discern” were responsible for the exaltation of social Darwinism
into “a complete explanation of organic process.”22 Geddes and Thom-
son were the authors of a work, The Evolution of Sex (1889), that argued
against Darwin’s view of sexual selection by maintaining that love,
cooperation, and self-sacrifice rather than competition formed the
essence of the evolutionary story. Socio-economic factors were being
used, then, to account for the wrong turning taken in both social theo-
rising and Darwinian biology.

More detailed examinations of these connections can now be
found in the work of Darwin’s most recent biographers. They are sup-
ported by evidence of the close family and other connections between
Malthus and Darwin, with James Mackintosh and Harriet Martineau,
a populariser of political economy, occupying strategic roles as inter-
mediaries. Thus Janet Browne, after mentioning the evidence of “the
commercial, entrepreneurial spirit of unfettered competition” that under-
lay the Wedgewood-Darwin family fortunes, concludes that “natural
selection intuitively seemed the right answer to a man thoroughly
immersed in the productive, competitive world of early Victorian

21 “All that the Darwinian theory of the struggle for existence boils down to is an
extrapolation from society to animate nature of Hobbes’s theory of the bellum omnium
contra omnes and of the bourgeois-economic theory of competition together with the
Malthusian theory of population.” See Engels’s letter to Lavrov, 12 November 1875, in Karl
08. The literature in which the connection is asserted without qualification is so large that it
can almost be regarded as commonplace. For some representative examples see B. Russell,
Religion and Science (New York: Holt, 1935), 72–73; A. Montagu, Darwin, Competition and
Cooperation (New York: Schuman, 1952), 32; and M. Harris, The Rise of Anthropological

22 See A. C. Seward, ed., Darwin and Modern Science: Essays in Commemoration of the
Centenary of the Birth of Charles Darwin and of the Fiftieth Anniversary of the Publication
England.” Adrian Desmond and James Moore go much further than intuition by attributing a conscious intention on the part of Darwin to underpin “Whig Malthusian ideals” by providing a consoling message to the new meritocratic middle classes: “From now on [Darwin] could appeal to a better class of audience—to the rising industrialists, free-traders, and Dissenting professionals.” With Chartism threatening revolution, the theory of evolution provided an opportunity “for middle-class Malthusians to stand up and show that nature was on the side of the bosses.” “Evolution and utilitarian economics were perfectly attuned,” and as a heavy investor in railway companies Darwin was putting his pen to good personal use in “placing Nature on industry’s side.”

Anyone familiar with post-Marxian histories of political economy will recognize these attributions of ideological allegiance, where these are invoked to explain the theories held by “bourgeois” economists treated as an aggregate. Where not actively sinister, the best that can be said of them as victims of their environment is that they suffered from some form of false consciousness. Malthus was an early target for such exercises in Ideologiekritik, with William Hazlitt and the Lake Poets preempting Marx in the early decades of the century by charging Malthus with upholding the status quo. He had provided solace to the consciences of the rich by attributing poverty to the fecklessness of the poor in marrying too early and having more children than they could support by their own efforts. Marx and Engels embroidered on such charges, and echoes of them can still be heard among late-twentieth-century critics of Malthus and of those features of life in nineteenth-century Britain, notably the Poor Law Amendment Act, for which he is held responsible. Nevertheless, Desmond and Moore have brought a new enthusiasm to an old game, and since Malthus, or rather an enlarged set of doctrines they regard as “Malthusian,” is central to their interpretation of Darwin, some comment based on the current state of Malthus scholarship seems warranted.

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23 J. Browne, Charles Darwin: Voyaging (London: Jonathan Cape, 1995), 390. Browne also avers that to someone, like Darwin, who was “so intimately familiar with the ideology of an expanding national power, selection by death or survival seemed an accurate description of what went on. Direct experience of imperial expansion encouraged him to see struggle, war, and extinction as inescapable truths of nature.” Hence the causal connection: “Darwin’s social and commercial contexts appear to have both generated and validated his scientific ideas.”


Malthus died four years before Darwin picked up a copy of the 1826 (sixth) edition of the *Essay on Population*, a work that Malthus had revised in the light of new evidence and changes in his opinions since it first appeared in its enlarged and less polemical form in 1803 (second edition). While Malthus’s death in 1834 coincided with the passage of the Poor Law Amendment Act, and its general tendency was attributed to “Malthusian” ways of thinking by opponents of the Act, Malthus had taken no part in any of the public deliberations that led up to the report of the royal commission on which it was based. He had ceased to press the case for abolition of the Poor Laws, having been impressed by the possibilities of achieving similar objectives via piecemeal improvements in the administration of the laws that had taken place since he began his own campaign against them in 1798. The report itself, largely written by a Whig economist, Nassau Senior (a colleague of Darwin’s friend, Lyell, at King’s College, London), rejected the idea that overpopulation was the chief cause of pauperism.

A few years earlier Senior had entered into friendly public controversy with Malthus on the status of the population principle under current conditions of moral and economic improvement. Senior contended that advances in levels of comfort and subsistence now preceded any increase in numbers, thereby overturning the idea that population not only has the power to increase faster, but has actually done so. Malthus was being invited to regard himself as a pioneering student of human population problems whose theories were no longer as relevant to civilized countries as they were when first formulated during the early decades of the century. Not surprisingly, perhaps, Malthus declined this invitation, but Senior was successful in carrying the day among the leading spokesmen for economic orthodoxy in the 1830s.26 In 1831 the Political Economy Club concluded that one of the errors of Ricardo, and those who followed him, chiefly James Mill and John Ramsay McCulloch, lay in following “Malthus’s principles of population to unwarrantable conclusions”: “. . . it is clear from the progress of social improvement and the bettering of the condition of the people in the greater part of the civilized world, that Capital, or the means of Employment—the fund for labour—increases in greater ratio than population.”27 In other words, and in answer to Thomson’s specula-

26 See *Two Lectures on Population, delivered before the University of Oxford, to which is added a Correspondence between the Author and the Rev. T. R. Malthus* (London, 1829).
27 See *Political Economy Club; Centenary Volume* (London: Macmillan, 1921), 225. This verdict was reiterated in 1835, when “the whole artillery of the Club was . . . directed against [the value and truth of the Principles of the Essay on Population]”; see ibid., 265, of J. L. Mallet’s
tions, Darwin’s reading of Malthus’s *Essay* can only be said to have coincided with a period when “pressure of population was practically interesting men’s minds” if this implies that the pressure in Britain had abated and Malthus’s original diagnosis was being treated as outmoded or in abeyance. I doubt if this is what Thomson, or many of those who stress the ideological implications of the Malthusian connection during the 1830s and 1840s, have in mind. Arguing a case for causation by means of correlation has its own hazards. How much more so when the correlation turns out to be wrong. A rise in the stork population cannot even be a candidate for an explanation for a rising birth rate if the storks were not present in the first place.

As we have seen, the blanket term “Malthusian” is called upon to do a great deal of work by Desmond and Moore. It is synonymous with poor law reform in the 1830s, and it also serves as shorthand for ruthless industrial competition and the preservation of those middle-class values threatened by popular forms of radicalism. Malthus’s (unnamed) followers, we are told, were shuffling the poor out of the country in an attempt to colonize an expanding empire with the most vigorous races. Darwin and Lyell were matching this by showing how migration was part of the process of accommodating similar pressures in the animal kingdom. Economic forces seem to be powerful whichever way the wind blows. The boom of the 1850s has the same result as depression in the 1830s: both have the effect of making “economic laws as iron-clad as Nature’s own.” Machinery, specialisation, the railway craze, and free trade are all part of an outlook that confirmed Darwin’s acceptance of the “Malthusian, capitalist, competitive mechanism.”

As Darwin had noted, “Malthusian” was being used as a term of abuse during Malthus’s lifetime, and there are understandable (reconstructible) reasons why this should have been the case. But when we know so much more about Malthus’s actual opinions, it is surely unnecessary to repeat ancient canards at the beginning of the twenty-first century, especially when there is no evidence that these formed part of Darwin’s understanding of Malthus. Darwin was more interested in...
what Malthus had to say as natural historian, as an exponent of the Paleyite form of natural theology in which his own original understanding had been formed, than in Malthus’s conclusions and recommendations as political economist. The same can be said of Wallace, who described the Essay on Population as “the first work I had yet read treating any of the problems of philosophical biology.”

There are some ironies in the continued use of Malthus as an icon or scapegoat. When Desmond and Moore portray Malthus as “a Whig free trader’s godsend,” they seem to have overlooked that he was the only leading political economist of his generation to support agricultural protection and to remain unconvinced that Britain’s economic future lay in the rapid development of its urban manufacturing industries at the expense of agriculture. He was also decidedly lukewarm about emigration as a solution to Britain’s population problems, and deeply suspected by more orthodox Ricardian thinkers for his underconsumptionist interpretation of the post-war slump and his fears that capital accumulation, like population growth, could proceed too rapidly. As E. A. Wrigley has shown, Malthus belongs squarely within a mentality attuned to an agrarian or organic economy rather than an industrial and inorganic one. Appearances could perhaps be saved by making it clear that “Malthusian” is a term of art that has acquired a life independent of Malthus himself. If we adopt that approach, however, explanations based on personal connections and similarities between the actual social visions entertained by Malthus and supposedly taken over by Darwin will have either to be abandoned or to be based on a closer study of Malthus.

If the point of the exercise is to reveal the role played by Malthus’s Essay in the process by which Darwin and Wallace arrived at the theory of natural selection, it seems preferable to stick with the ample testimony left by the two main protagonists, supplemented by what we can reconstruct of the state of their biological and geological thinking at the time. The biographical evidence alone makes it clear that Darwin and Wallace shared a good deal more than their reading of Malthus at

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31 This conclusion can be supported by Ospovat’s findings that Darwin was still under the influence of a Paleyite search for mechanisms of perfect adaptation in the 1840s and 1850s. Note, however, that Ospovat continues to endorse the commonplace ideological interpretations of the necessary role played by Malthus’s theory as a form of social pacification: see Dov Ospovat, The Development of Darwin’s Theory: Natural History, Natural Theology, and Natural Selection, 1838–1859 (Cambridge: Cambridge University Press, 1981), 63.

32 See My Life, 1: 232.

a strategic point in their inquiries. Many years later, when Wallace asked himself the question, why did he and Darwin succeed where “so many of the greatest intellects” had failed, his first answer was that they were both avid “beetle-hunters,” impressed by the unexpected variety to be found within a single species. His second answer turned on their good fortune in becoming world travellers who had witnessed “all the strange phenomena of local and geographical distribution, with the numerous problems to which they give rise.” Reading Malthus came third, as the insight that acted like friction on a “specially-prepared match.”

We would not expect Wallace or Darwin to make the task of contextualist historians easier by mentioning perceived analogies with rampant industrial capitalism and imperialism as part of their intellectual formation as biologists. Nor is it clear that they would have identified such phenomena with the writings of those political economists with which they were familiar. How far we might wish to extend our inquiries in this direction is a matter of deciding what we wish to explain and what degree of explanatory significance can be attached to the broader intellectual and ideological context. It is equally important to note what connections can be forged between the biographical evidence and a context that seems capable only of being specified at such a high level of generality that it is impossible to see how anyone not suffering from class defensiveness or false consciousness could escape belief in its evident reality. Without some attempt at this, we are exercising an open-ended license to replace what can or cannot be ascertained with whatever we stipulate as necessary features of the Zeitgeist.

What we know about the social and political opinions of Wallace and Darwin before and after their enunciation of the theory of natural selection does not suggest that it will be a story that has the same beginning or ending for both men. They came from very different social backgrounds, with Wallace, the less privileged of the two, becoming a land nationaliser and later a socialist. Darwin, on the other hand, remained some kind of radical or liberal throughout his life, though one who attempted, with limited success, to avoid adopting a public position on controversial religious and political issues. In the letter that provides my epigraph Darwin went on to hope that Wallace, in pursuing his political goals, was not going to “turn renegade to natural

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34 See The Darwin-Wallace Celebration, 1908, 7–10.
35 Darwin described himself as a “Liberal or Radical” in his answers to Galton’s questionnaire directed at leading scientists; see F. Darwin, ed., Life and Letters of Charles Darwin, 3: 178.
history,” the field they had in common. Social status and class location are notoriously unreliable guides to political opinions when dealing with individuals. It is not inconceivable that the allegiances of Darwin and Wallace could have been reversed. Since the theory of natural selection as applied to the animal kingdom is the only thing on which they were in agreement, their political divergences can be studied in their own right without regard to the ways in which they arrived at that theory. We cannot merely assume structural congruence between “science” and “politics”: it has to be proved.

IV

Darwin was deprived of the opportunity to meet “the great philosopher, Malthus,” but he did become acquainted, indirectly at least, with John Stuart Mill, the best-known political economist and utilitarian philosopher of his generation. Mill was also the leader of radical-liberal opinion, a public figure whose stance on such issues as slavery and support for the North in the American Civil War was one that Darwin admired.36 The initial contact with Mill came through one of the latter’s disciples, Henry Fawcett, who wrote an early layman’s exposition of Darwin’s theory defending it from theologians such as Bishop Wilberforce and other critics who argued that it was based on a method that failed to meet the established Baconian canons for scientific inquiry.37 The resulting correspondence with Fawcett enabled Darwin to learn that Mill considered Darwin’s methods of investigation to conform to the “strict principles of Logic.”38 Coming from the author of A System of Logic (1843), a work that had become the principal exposition of the principles underlying investigation in the natural and moral sciences, this was gratifying to Darwin.39 Gratitude was compounded when he learned that in a revised edition of the Logic in 1862, Mill had described Darwin’s theory as an “unimpeachable example of a legitimate hypothesis” and “a wonderful feat of scientific knowledge and ingenuity.”40

36 See letters exchanged with Asa Gray, 6 March and 21 April 1862, Correspondence, 10: 101, 163. Darwin’s son, Charles, described his father as “an ardent Liberal” who “had a very great admiration for John Stuart Mill and Mr. Gladstone”; see Life and Letters, 3: 177–79.
38 See letter from Fawcett, 16 July 1861 in Correspondence, 9: 204.
39 See ibid., 212–14 for Darwin’s letters to Lyell and Gray citing Mill’s judgement.
Later economists and social Darwinists were apt to look down on Mill as representing a pre-Darwinian or, more usually, a pre-Spencerian state of mind: he fell short of their own advanced state of thinking on social evolution.\(^41\) In this, as we shall see, they were essentially correct. It is also true that Mill, towards the end of his life, was still prepared to give some credence to arguments from design.\(^42\) But the important point to note is that Mill did not draw any ethical, political, or economic conclusions from his understanding of Darwin’s biology. Indeed, it would have been strange if he had done so. Mill’s positions on such matters were fully formed; and they were based on an unrivalled knowledge of utilitarianism and political economy, supplemented by other influences he had absorbed since his original upbringing as the scion of orthodox Benthamism and Ricardianism.

Given the importance attached to a fused version of these bodies of thought in contextual studies of Darwin, it seems strange that more attention has not been paid to Mill, whose *Principles of Political Economy, with some of their applications to Social Philosophy* remained the leading work on the subject from its first publication in 1848 to Mill’s death in 1873. Although there is no evidence that Darwin ever read the *Principles*, he was certainly familiar with other works by Mill, notably the *Logic, Utilitarianism* (1863), and the *Subjection of Women* (1869). Perhaps by 1848 or some time thereafter Darwin had already come to the conclusion about political economy recorded in my epigraph.

Judged by some of the “Malthusian” criteria stressed by Desmond and Moore, however, Darwin would have found Mill’s *Principles* highly congenial. One of the outstanding features of the work was its persistent emphasis on the Malthusian problem. Mill was in fact an ultra-*neo*-Malthusian, a supporter of birth control within marriage as a solution to the dilemma posed by the combination of population pressure with the law of diminishing returns in agriculture. He regarded Malthus’s theory as the foundation of all sound policy thinking on the living standards of the poorest, and was a forthright defender of the new Poor Law. As a thoroughgoing secularist, however, Mill replaced Malthus’s theological view of progress with a secular yet non-materialist

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41 This describes the attitude of another leading political economist, William Stanley Jevons, who said that Mill was “the last great philosophic writer conspicuous for his ignorance of the principles of evolution.” In this respect Mill had discarded much that was admirable in Bentham, “but failed to introduce the true Evolutionist principle; thus he falls between the two. It is to Herbert Spencer we must look for a more truthful philosophy of morals than was possible before his time” (as quoted in R. D. Collison Black, “Jevons, Marshall and the Utilitarian Tradition,” *Scottish Journal of Political Economy* 37 [1990], 12).

42 See his essay on theism in the posthumously published *Three Essays on Religion* in CW, 10: 449–50 commenting on the implications of the survival-of-the-fittest hypothesis.
theory that had no place for such providentialist mechanisms as those contained in the idea of necessity being the mother of invention. As he said of the Malthusian thesis in his *Autobiography*, speaking of a whole generation of young philosophic radicals: “This great doctrine, originally brought forward as an argument against the indefinite improvability of human affairs, we took up with ardent zeal in the contrary sense, as indicating the sole means of realizing that improvability by securing full employment at high wages to the whole labouring population through a voluntary restriction of the increase of their numbers.”  

Neo-Malthusianism underlies a number of characteristic opinions that Mill entertained throughout his life, some of which could be used to embellish a context dominated by imperialism. For example, he was convinced that systematic, state-supported emigration to “new” British colonies along the lines advocated by Edward Gibbon Wakefield during the 1830s and 1840s might still be necessary in the 1860s, long after the Irish famine had led to massive resort to this option and Wakefield’s colonization schemes had ceased to be a major public issue. The imperialist bell can be made to ring louder by noting Mill’s belief that British rule in India required a form of enlightened despotism that could be a “gain to civilization.” He was, after all, a devoted servant of the East India Company up to 1858, when the company was disbanded as the instrument through which Britain ruled India. What also needs to be noticed, however, is Mill’s firm opposition to explanations of backwardness based on innate characteristics such as race. The following remark was made in relation to the Irish, but had equal application to India as well: “Of all vulgar modes of escaping from the consideration of the effect of social and moral influences on the human mind, the most vulgar is that of attributing the diversities of conduct and character to inherent natural differences. What race would not be indolent and insouciant when things are so arranged, that they derive no advantage from forethought or exertion.”

A clear understanding of the precise role played by competition within well-established markets in the writings of political economists

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44 See *Principles of Political Economy* (PPE) in CW, 3: 963, 967. Apropos of the remarks of Desmond and Moore on emigration to the empire, it should be noted in passing that Malthus was at best lukewarm about emigration as a solution to the population problem, and that Wakefield’s schemes were conceived as alternatives to the policies of “shovelling out paupers” espoused by Wilmot Horton, a politician who had some claims to be a follower of Malthus.
46 PPE in CW, 2: 319.
from Smith through to Mill and Marx is not something that one can readily find in the contextual literature on Darwin.\textsuperscript{47} Quite apart from this, however, Mill does not conform to the “Malthusian-Darwinian” stereotype of ruthless competitive individualism mentioned earlier. His concern with the Malthusian problem led him to overturn an earlier Ricardian preoccupation with capital accumulation and economic growth as a means of postponing the onset of a stationary state. By embracing a zero-growth economy, Mill hoped that a shift could be engineered from an overwhelming concern with the problems of increased production to those pressing issues connected with socialism and a more egalitarian system of wealth and income distribution that would give leisure, education, and the quality of life higher priority. Chief among the benefits of a stationary economy would be the limitation of any further damage inflicted on the natural environment through population growth. Although a convinced free trader, Mill was not among the many celebrants of Britain’s industrial and scientific progress. Any optimism he felt on this score was hedged around with qualifications, chief among them being those connected with population.

Hitherto it is questionable if all the mechanical inventions yet made have lightened the day’s toil of any human being. They have enabled a greater population to live the same life of drudgery and imprisonment, and an increased number of manufacturers and others to make fortunes. They have increased the comforts of the middle classes. But they have not yet begun to effect those great changes in human destiny, which it is in their nature and in their futurity to accomplish. Only when, in addition to just institutions, the increase of mankind shall be under the deliberate guidance of judicious foresight, can the conquests made from the powers of nature by the intellect and energy of scientific discoverers, become the common property of the species, and the means of improving and elevating the universal lot.\textsuperscript{48}

Worship of the “idol” of production, that “disposition to sacrifice every thing to accumulation” and the “exclusive and engrossing selfishness which accompanies it,” was one of Mill’s earliest strictures on the mentality and culture of his fellow countrymen. He added the “dollar-hunting” habits of Americans later, and classified America and Britain as the two chief examples of the “industrial” mentality, where this

\textsuperscript{47}This is one of the points made by P. J. Bowler in the work cited in n. 13 above. It also figures in Scott Gordon’s criticisms of this literature (see “Darwin and Political Economy: The Connection Reconsidered,” \textit{Journal of the History of Biology} 22 [1989]: 437–59), though Gordon’s case would be strengthened if it did not depend on an anachronistic neoclassical economists’ conception of “perfect competition.”

refers to the pursuit of economic gain in general rather than to manufacturing.\footnote{See letters to Gustave D’Eichtal, 15 May and 8 October 1829, in CW, 12: 31, 37.} The following characteristic statement of his ultimate social goals will reveal how wide of the mark generalisations about the pervasiveness of a survival-of-the-fittest mentality among economists are: “. . . I am not charmed with the ideal of life held out by those who think that the normal state of human beings is that of struggling to get on; that the trampling, crushing, elbowing and treading on each other’s heels, which form the existing type of social life, are the more desirable lot of human kind, or anything but the disagreeable symptoms of one of the phases of industrial progress.”\footnote{PPE in CW, 3: 754.} Such disagreeable symptoms were to be retained while “coarse minds” require coarse stimuli, but Mill saw his task as preparing the public to accept the more altruistic, more cooperative ways of life that he believed were emerging through piecemeal experimentation.

\section*{V}

The rationale for Mill’s stance on competitive struggle and racial differences lay in his faith in environmental explanations and his consequent commitment to a new science he called “ethology”: a study of the moral and social factors that underlie the formation of “character.”\footnote{See \textit{System of Logic} (in CW, 8), book 6, chapter 5.} The science was intended to be an extension of the principles of associationist psychology to collectivities that were subject to similar “educational” processes in the widest sense. One of the main problems to which Mill hoped ethology could be applied was the question of gender. It would demonstrate that many of the characteristics of women currently regarded as “natural” or innate were actually the product of their subjection to men as a matter of custom and experience. In other words, Mill was anxious to give culture rather than nature the largest part in forming women’s behaviour because he sought to deny those certainties associated with innatism that were currently in use to justify the unequal treatment of women.

This is the central message of Mill’s \textit{Subjection of Woman}, and it was one that Darwin found impossible to accept when he came to write the \textit{Descent of Man and Selection in Relation to Sex}, where the full title announces the topic that had preoccupied him since publishing the \textit{Origin}—selection through more or less peaceful competition by males for females. By contrast with Lyell and Wallace, Darwin resisted the idea that the special moral and intellectual characteristics of human-
kind could be explained only by stressing the ways in which human development was exempted from the laws of natural selection. Darwin treated the basic social instincts of animals and humans as innate and heritable rather than acquired, while acknowledging that at a late stage in evolution superior mental powers had enabled humankind to attain the status of a “moral being,” capable, through self-reflection, of developing a conscience that had no equivalent in the lower animals.52

Approaching sex differences via zoology and anthropology, then, Darwin argued that the processes of natural and sexual selection had acted on the sociable instincts to generate the observable physical and behavioural differences between men and women. The higher qualities of energy, intelligence, perseverance, courage, and even aesthetic creativity that men acquired through these processes accounted for male superiority. In Darwin’s opinion, Mill had downgraded male skills, including one of his own skills, by saying that the fields in which men most excelled were those that involved “plodding” and “long hammering at single thoughts.”53 Surely this itself was evidence of superior qualities of energy and perseverance.54 More to the point, Darwin was not convinced that major changes in the traditional male-female division of labour either could or should be engineered.55

Darwin also recognized that those social or sympathetic feelings in man that had been honed through natural selection could come into conflict with other biological findings. By a roundabout route this led him to endorse a solution to the human population problem that—with one highly significant difference—has affinities with the conclusions of Malthus’s natural theology. The difference arises from Darwin’s acceptance of Francis Galton’s eugenicist findings on the heritability of mental and moral qualities, and the consequent effect of marriage between inferiors on the intelligence of the population stock.56 Although it would be preferable if all those who were “in any

52 “A moral being is one who is capable of comparing his past and future actions, or motives, and of approving or disapproving of them. . . . Man in this respect differs profoundly from the lower animals”; Descent of Man, 115.


54 The Descent of Man (1871), as reprinted by Prometheus Books (New York, 1998), 595n.

55 Darwin’s role in underpinning conventional assumptions concerning the inferiority of women has, of course, generated a large literature. For a moderate statement of this, in which Mill serves as a reminder of a Victorian alternative, see Evelleen Richards, “Darwin and the Descent of Woman,” in D. Oldroyd and I. Langham, eds., The Wider Domain of Evolutionary Thought (Dordrecht: D. Reidel, 1983), 57–111. For the wider context in which Darwin’s view prevailed over that of Mill, see Cynthia Eagle Russett, Sexual Science: The Victorian Construction of Womanhood (Cambridge, Mass.: Harvard University Press, 1989).

56 See F. Galton, Hereditary Genius; An Inquiry into its Laws and Consequences (1869) as reprinted by Peter Smith (Gloucester, Mass., 1972).
marked degree inferior in body or mind” refrained from marriage, Darwin regarded this as a utopian hope. Under present circumstances the chief threat was that discerned by Galton, namely, that if the prudent avoided marriage (or curbed the size of their families) while the reckless reproduced at will, the “inferior members tend to supplant the better members of society.” Malthus had hoped that delayed marriage and a general process of *embourgeoisement* would reduce the moral evils associated with excessive population growth, but his attention was focussed on the quantitative aspects of the problem: low wages, poor living conditions, excessive toil, and high pre-adolescent mortality rates. The benefits of moral restraint, therefore, would accrue to society through the relief of poverty rather than through an improvement in the qualitative composition of the population at large as measured by the mental attainments of the “better members of society.” Where Malthus, so to speak, joins hands with an agnostic Darwin, is in his belief that population pressure, when its associated evils were curbed by moral restraint, was part of God’s design for the progress of the human race as a whole. The similarities and differences are encapsulated in Darwin’s summary remarks at the end of *Descent of Man*:

Man like every other animal, has no doubt advanced to his present high condition through a struggle for existence consequent on his rapid multiplication; and if he is to advance still higher, it is to be feared that he must remain subject to a severe struggle, otherwise he would sink into indolence, and the more gifted men would not be more successful in the battle of life than the less gifted. Hence our natural rate of increase, though leading to many and obvious evils, must not be greatly diminished by any means. There should be open competition for all men; and the most able should not be prevented by laws or customs from succeeding best and rearing the largest number of offspring.

Whether on the “woman question” or the nature and cure for the Malthusian threat it would be hard to imagine a clearer contrast with Mill’s diagnosis and remedies. If Mill had responded to Darwin’s latest work before his death in 1873, it seems almost certain that he would have expressed dismay in finding that Darwin’s “wonderful feat of sci-

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57 *Descent of Man*, 641.
58 *Descent of Man*, 642. The force of the statement quoted is modified, however, by what follows: “Important as the struggle for existence has been and even still is, yet as far as the highest part of man’s nature is concerned there are other agencies more important. For the moral qualities are advanced, either directly or indirectly, much more through the effects of habit, the reasoning powers, instruction, religion, etc., than through natural selection. . . .”
Scientific knowledge and ingenuity” was now being used to reinstate those positions, the respectability of which Mill had sought to undermine. Sex differences were being endowed with an innate element and fortified by other biological arguments that suggested the ineradicability, and the undesirability of modifying, established gender roles. In addition, the competitive struggle associated with population growth was being accorded an essential causal role in future development. There could be no end to the “struggling to get on.” Intuitionism—in Mill’s view, the enemy of all constructive schemes for reform—was having its scientific credentials renewed, and the aim of Mill’s Logic was thereby being subverted. Biological determinism was being allowed a role that Mill might have regarded as akin to the teachings of Christian providentialism, an attack on which was the subject of one of his posthumously published essays on religion. Suffering had been reinstated as an essential element in the formation of will, a doctrine excoriated by Mill in On Liberty.

Darwin recorded his regrets in being unable to follow Mill’s line of reasoning on these matters in Descent of Man, and he went to some trouble when preparing the second edition to ensure that he had not misrepresented Mill’s arguments in Utilitarianism. But he was also fully conscious of what had led him to a divergent conclusion: “The ignoring of all transmitted mental qualities will, as it seems to me, be hereafter judged as a most serious blemish in the works of Mr. Mill.” Behind this lay a wider disagreement with utilitarian accounts of morality that had a long gestation. When he first began to take an interest in mental operations and the formation of moral codes in the late 1830s, Darwin had been drawn to those theories of “sympathy” and natural sociability he had encountered in the course of his reading of such Scottish moral philosophers as David Hume and Adam Smith, with Mackintosh and Dugald

59 Autobiography in CW, 1: [191–92].
60 “It is with hesitation that I venture to differ at all from so profound a thinker”; see Descent of Man, 101n. Darwin’s son was asked to check Mill’s position on the central issue in Utilitarianism: the relative roles assigned to intelligence and association on one side versus innate qualities on the other. He reported that his father had not misrepresented Mill, and that Mill appeared to be rather muddled on the entire question. See Darwin MSS in Cambridge University Library, letter from William Darwin in DAR 88: 76–77. Darwin was pleased to be told by John Morley that there were no fundamental differences between himself and Mill; see DAR 88: 71–72 and DAR 146: 409.
61 Ibid., 101n. Frances Power Cobbe, a Christian, conservative feminist who took issue with the moral implications of Darwinism, reported that Darwin had told her “Mill could learn some things from physical science; and that it is in the struggle for existence and (especially) for the possession of women that men acquire their vigor and courage”; see Life of Frances Power Cobbe by Herself, 2 vols. (Boston: Houghton, Mifflin, 1894), 2: 445.
They provided an answer to the question of how moral codes could be formed on the basis of innate moral sense or instinct independent of the role of reason and intelligence. In other words, they made it possible to stress what humans had in common with other animals without blocking off the possibility of acknowledging later refinements of social conscience that were peculiar to humans.

Utilitarians of Mill’s stamp (Alexander Bain’s *Mental and Moral Science* became one of Darwin’s main targets) argued that the moral sense, though “natural” in one of its many senses, was an acquired instinct that could be much improved by associationist processes and the application of intelligence. On the basis of “the general theory of evolution,” a theory that started from the common basis of all animal behaviour, Darwin regarded this as “extremely improbable.” He also gave a clear statement of why he found it difficult to accept the conclusions of the utilitarian or “derivative school of morals.” That “our impulses do not by any means always arise from any contemporaneous or anticipated pleasure, has, I cannot but think, been one chief cause of the acceptance of the intuitive theory of morality, and of the rejection of the utilitarian or ‘Greatest happiness’ theory.” In place of greatest happiness Darwin favoured “common” or “community good” judged in terms of survival and reproduction.

Verbal misunderstandings played their part in these disagreements between two versions of a naturalistic approach to morals, but there can be no doubt that Darwin was fully aware of what distinguished his own position from that of the utilitarians and associationists. Far from extending to biology the presumptions of utilitarianism, therefore, Darwin was advancing a biological alternative to Mill’s ethiological interpretation of utilitarianism that undermined many of its most characteristic conclusions. Moreover, in so far as competitive struggle or *laissez faire* are adequate labels to describe some aspects of Darwin’s position on social evolution, it has to be said that the resulting theory of progress derived no support from the views of Mill and those political economists who belonged to his school of thought. No criticism of Darwin or Mill is entailed in this conclusion, but it could help to explain why falling among political economists had such a disastrous effect on Darwin’s mind.

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62 See *Notebooks M and N*, 558–59, 591–93. In *Descent of Man*, Darwin criticized Smith’s account of sympathy, though chiefly because it had been given a more associationist interpretation by Alexander Bain; see ibid., 109–10.

63 *Descent of Man*, 125.

VI

No one who practices intellectual history in the manner that is now widely accepted is going to criticize studies that make the social, political, and intellectual context an integral part of any attempt to explain what is going on in Darwin’s complex texts. Nor are they going to be overawed by the disciplinary borderlines and priorities that have been imposed on nineteenth-century debates by some twentieth-century historians of the natural sciences. But insofar as Darwin’s contacts with political economy and utilitarianism are deemed to be an essential part of his context, as they clearly are for some important purposes, it seems odd that they can only serve this purpose by being vulgarized and homogenized, losing all those individual characteristics that Darwin was anxious to master. The exigencies of popular biography may dictate a different strategy, but those who describe themselves as contextual historians, surely, have an obligation to apply the same standards of scholarship to the work of political economists, as they seek to apply to Darwin’s texts. Abridgments or surveys of the social and intellectual history of the period, however good, cannot simply be read into the record of what purport to be detailed and discerning works of scholarship. Hence the charges of having recourse to “easy formulas,” “empty slogans,” one-eyed ideological abbreviations, and mere lists of coexisting interests and generic influences that have been brought by those who are no less committed to the contextualist position in the history of biology.65 As a relative newcomer to the intellectual history of Darwin and Darwinism, I find it interesting to note the way in which, for example, historians of medicine and public health are now pleading for this perspective to be incorporated into studies of Malthus and Darwin.66 With the resources of the Wellcome Foundation to hand, it seems highly likely that this will happen. My plea is simply for the less well-endowed branches of intellectual history that are concerned with demography, political economy, theology, and moral philosophy to be taken equally seriously.


66 This is the burden of several of the contributors to B. Dolan, ed., Malthus, Medicine, and Morality.