Project MUSE®
http://muse.jhu.edu

supported by a stable monetary infrastructure. And perhaps the extraordinary array of talent nowadays employed within the Federal Reserve System provides a prime example of the continuing importance of economics to public policy in America.

But despite this important reservation about Bernstein's story of the decline of the influence of economics, and despite some alarming slips that tend to undermine confidence in his command of important details of his story (one example: he tells us [p. 279, n. 31] that the rational expectations hypothesis "first systematically emerged in R.F. Muth, 'The Demand for Non-Farm Housing' . . . (1960)"—wrong article, and wrong Muth too), I recommend this book. It is a substantial and provocative contribution to the ongoing construction of a history of twentieth-century American economic thought.

David Laidler, University of Western Ontario

Darwinism and Evolutionary Economics. Edited by John Laurent and John Nightingale. Cheltenham, U.K.: Edward Elgar, 2001. xii; 254 pp. $90.00.

Darwinism has never been more influential than it is today, over 140 years since Charles Darwin published *On the Origin of Species* (1859). Darwin had worked out his theories twenty years earlier, but, an establishment figure, he feared his social standing would not withstand publication of them. Darwin also understood the importance of priority to scientific reputation, however. Upon reading a paper by Alfred Russel Wallace, a then obscure naturalist, that independently proposed the theory of evolution by natural selection, Darwin was moved to hasty publication—his introduction calls *On the Origin of Species* an "abstract." Darwin also orchestrated, without Wallace's knowledge, the unveiling of both men's work at the same meeting (Raby 2001). While Wallace is sometimes granted credit for codiscovering the theory of natural selection, it is Darwinism, not Wallacism, that inspires and exercises contemporary scholars.

Darwin and Darwinism start with only two fundamental premises. First, heritable changes occur randomly in individual organisms. Second, some of these changes offer individuals, via natural selection, a greater relative chance of surviving and reproducing (a.k.a. fitness). If both premises are true, the population to which the individuals belong will *necessarily* evolve, that is, the population will have an increasing proportion of fitter traits. Darwin never knew what changed or how it was inherited or what caused its changes—he died without having read Gregor Mendel's genetics paper. Darwinians know that phenotypes (organisms and their behaviors) are influenced by their genes (collectively, the genotype), and that it is the genotype that changes—via mutation and recombination from sexual reproduction—and that the genotype is inherited via sperm and egg.

Economic thought and evolutionary thought are old trading partners, and biological metaphors are commonplace in the history of economics. The range of

contemporary economic thought that adopts the term "evolutionary" is likewise impressive. But, as noted by John Laurent in his first contribution to this intriguing collection, Darwin's and Darwinian thought are strikingly absent from the history of economics.

Laurent finds that Darwin's economist contemporaries, to the extent they understood evolution at all, typically confused Herbert Spencer with Darwin—the catch phrase "survival of the fittest" is Spencer's coinage. Two fairly obscure Australians are the best evidence of Darwin's influence. Alfred Marshall, who liberally salted his work with biological metaphors, should promise better hunting, but doesn't. The frontispiece to Marshall's *Principles* has the same gradualist motto found in *On the Origin of Species—natura non facit saltum*—and Marshall even claims that "the Mecca of the economist lies in evolutionary biology." But, as Peter Groenewegen's chapter reluctantly concludes, Marshall knew almost nothing of biology, still less of Darwin's ideas, and Marshall's writings provide no reason for a pilgrimage.

Laurent's second contribution, on Keynes and Darwinism, documents that the Keyneses and Darwins, leading Cambridge families, socialized, intermarried, and frequently dabbled in eugenicist politics. Keynes understood Darwin's ideas better than did Marshall, but there's little evidence that Darwin influenced Keynes's economic ideas.

The standout paper, by William Coleman, offers a clever intervention into the ongoing historical debate over classical political economy's, especially Thomas Malthus's, influence on the theory of natural selection. One side of the debate—what evolutionary biologist Richard Lewontin terms "received doctrine" among historians—reduces Darwin's thought to a simple projection onto nature of classical political economy, which is itself read as capitalist apologetic.

Coleman's gambit is to offer Wallace as counterfactual evidence. Wallace was to his death a stout defender of natural selection. At the same time, however, he strenuously rejected orthodox political economy. Wallace opposed competition, free trade, usury, and exports, championed minimum wages, land nationalization, and free bread for the indigent, and argued that "capital" was "the enemy and tyrant of labour" (39). If political economy determined the theory of natural selection, Coleman dryly concludes, historians will now need to busy themselves with the idiosyncratic, Owenite roots of Wallace's own political economy.

The second half of the volume compares the merits of Lamarckism and Darwinism. Lamarckism says that giraffes have long necks because their parents stretched for leaves unreachable by others. For Darwinians, genetic variation precedes (possible) adaptation; for Lamarckians, phenotypic adaptation causes genetic variation. Darwin is thus non-Darwinian in his belief that some acquired characteristics are heritable.

In biology, Lamarckism is almost universally rejected, for two reasons. First, there is no known mechanism by which acquired phenotypic traits are genetically encoded. Second, this barrier to heritability notwithstanding, Lamarckism cannot

explain, without piggybacking on natural selection, why advantageous but not disadvantageous phenotypic changes, notably injury, are inherited.

The Darwinian scheme lacks obvious analogues in society. What exactly is the social analogue of the gene—called a "meme"—and how are memes varied, selected for, and inherited? Intentional agents can vary memes purposefully not randomly, and selection can be rational rather than natural. And, since human phenotypes seem to govern memes, many social evolutionary theorists regard themselves as Lamarckian—Friedrich Hayek, Herbert Simon, Richard Nelson, and Sidney Winter among them.

Geoffrey Hodgson's chapter usefully rehearses some of these issues in the biological context, and briefly offers an institutionalist case for habits as a candidate for memes. Hodgson argues that social evolution is Lamarckian in permitting acquired characteristics to affect memes, but not Lamarckian because Lamarckism offers no account of how agents choose or imitate advantageous memes.

Thorbjørn Knudsen covers territory similar to Hodgson's, in still greater detail, but usefully applies his discussion to the use and misuse of "natural selection" (introduced by Armen Alchian) in the mid-twentieth-century marginalist debate. Knudsen flags, but does not develop, this volume's Dog that Doesn't Bark: how twentieth-century social science tarred Darwinism with Spencerian Social Darwinism, itself misidentified as the sole precursor to the eugenics movement.

John Wilkins continues the discussion at a high level of abstraction. His paper corrects some Lamarckian fallacies—for example, the presumption that social evolution must be progressive. Wilkins effectively explores the causal boundary between phenotype and genotype. His sensible Darwinism cautions that cultural memes no more constitute a social agent, than do genes constitute the human organism.

Jack Vromen argues that Darwinian selection does not rule out human agency. Vromen's is the only chapter that actually considers evolutionary economics and the most prominent locus of Darwinian social thought, evolutionary psychology.

Contemporary economic thought employing the term "evolutionary" is, with exceptions like Hodgson's, uninterested in biological ideas. Richard Nelson's preface concedes as much. Evolutionary economists are "evolutionary" primarily in their rejection of neoclassical economics' maximization *cum* equilibrium method. Neo-Schumpeterians consider disequilibrium processes and intrafirm dynamics, and paleo-institutionalists emphasize methodological holism and social effects on preferences.

The book ignores evolutionary game theory, which is, arguably, the principal locus of modern Darwinian thought in mainstream economics. As Paul Krugman (1996) has noted, current evolutionary theory bears an unexpected resemblance to neoclassical microeconomics. Evolutionary theorists in biology are methodological individualists; they use stripped-down modeling techniques, and, most surprising of all in an evolutionary context, focus on equilibria, as with John Maynard Smith's evolutionary-stable strategy concept.

Evolutionary game theory's analogy to biological evolution is imperfect, but, for the historian, it is the location where Darwinian ideas most influence the maximization *cum* equilibrium method. No longer do hyperrational players instantaneously deduce an equilibrium strategy. Low-rationality agents grope toward a (potentially suboptimal) equilibrium, more pushed by a changing environment than pulled by their deductive prowess.

It is a small irony that the neo-Schumpeterians and the paleo-institutionalists use "evolutionary" to signal "not neoclassical," when the evolutionary theory most influencing mainstream economics itself resembles neoclassical economics. This may be evidence not of Darwin in evolutionary economics, but of neoclassical economics in contemporary Darwinian theory. Perhaps to this and adjoining areas the editors and contributors will next turn their keen eyes and infectious scholarly enthusiasm.

Thomas C. Leonard, Princeton University

References

Darwin, Charles. 1859. *On the Origin of Species by Means of Natural Selection, or, The Preservation of Favoured Races in the Struggle for Life*. London: John Murray.

Krugman, Paul. 1996. What Economists Can Learn from Evolutionary Theorists. Mimeo.

Raby, Peter. 2001. *Alfred Russel Wallace: A Life*. Princeton, N.J.: Princeton University Press.

The Canon in the History of Economics: Critical Essays. Edited by Michalis Psalidopoulos. London: Routledge, 2000. xvi; 224 pp. £55.00.

Do economists know what they should know from the past? How is the "canon" constructed in economics, and is the past transmitted efficiently to the present? As the profession comes to know the context of the attacks on political economy by the literary sages (Carlyle, Ruskin, Dickens, and Charles Kingsley, among others) in the mid–nineteenth century (Levy and Peart 2001–2), these questions take on new significance. They implicitly underscore many of the papers in *The Canon in the History of Economics*, edited by Michalis Psalidopoulos. In his brief introduction, Psalidopoulos notes that there has been much recent and ongoing debate about the construction and role of the canon in the humanities. Those debates have now begun to spill over to economics. This publication of essays originally presented in 1997 at the European Conference on the History of Economics in Athens is therefore timely.

As in other disciplines, strong feelings are aroused by the notion of a canon in economics. Its definition is, indeed, ambiguous. There is, moreover, no consensus about how the economics canon was (and continues to be) formed or how various