but it has also involved a narrowing of the perspective. Few subjects more certainly demand an international perspective than war. To mention only a couple of facts that support this remark, let me remind the reader that: (1) as the aggressive interpretation of Darwinism was often presented as a typical German craze, something more should have been said on Germany at least; (2) there were national differences between the schools of social psychology, as crowds were obviously seen differently in different contexts (and the author himself recognizes that "the politico-cultural context was critical", p. 152).

But these are not so much strictures on this very important book as appeals for a sequel to it. The author seems to be the right person to give his creature a companion (but he must find a copy-editor who really cares about the proper spelling of foreign names and words).

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André Pichot, *Histoire de la notion de vie*, Paris, Gallimard, 1993, pp. 973, FF 89.00 (2-07-073136-7).

This is a formidable volume, both physically and intellectually. Its nearly 1,000 pages of closely printed text are unrelieved by illustrations, and the book as a whole has the weight and dimensions of the average house brick. But for the reader who is willing to take on the task of studying a work of this magnitude and density, the rewards are significant.

Pichot's approach to the history of theories of life is highly philosophical and would not suit the more sociologically minded historian. But within its chosen framework it presents a sweeping and in places highly original analysis of attempts to answer the question, "What is life?", throughout the period from antiquity to the present. The discussion is organized chronologically, with chapters devoted to major authors, or to groups of authors related in time and outlook.

Pichot's epistemological analysis is interspersed with extensive passages taken from these authors, with about a third of the text overall being comprised of these well-chosen illustrative extracts. What we have, then, is not only a sustained argument from Pichot but also a valuable anthology of related primary materials (translated into French where this is not the original language).

It is impossible in a brief review to do justice to the complexity of Pichot's argument, but one of his central concerns is to examine historical material in a way that will provide the critical tools needed to assist modern biology in developing its own scientifically adequate concept of the specificity of life. This aim leads Pichot to treat familiar historical figures such as Aristotle, René Descartes and Jean-Baptiste Lamarck in unfamiliar ways. That these three individuals are in fact central to Pichot's account, is clear from the titles he gives to his first seven chapters: 'Before Aristotle', 'Aristotle and life', 'After Aristotle', 'Before Descartes', 'Descartes and mechanism', 'After Descartes', 'Lamarck and biology'.

Of these three central figures, it is Aristotle and Lamarck who emerge as the most important contributors to the conceptualization of life—Aristotle operating within an idealist metaphysic of eternal and unchanging forms and Lamarck within a materialist metaphysic of time-dependent progressions. From this perspective Galen's work represents a retreat from the comprehensiveness of Aristotle's concept of life, with the Galenic "parcellisation" of the body into quasi-autonomous organs and "faculties" undermining the integrity of the Aristotelian *psyché*. Indeed, for Pichot, Galen's notion of the functioning of organs is already machine-like, despite all its vaunted teleology; for, as Georges Canguilhem pointed out long ago, nothing is more teleological than a machine.

Descartes, typically seen as the founder of the mechanistic view of life, is presented by Pichot as being for the most part a mere translator of Galen's physiology into a different idiom, one that Pichot characterizes as "machine-ism" rather than genuine mechanism.

https://doi.org/10.1017/S0025727300060178 Published online by Cambridge University Press

It is only in his embryology that Descartes explicitly conceptualizes the self-organization of a living being simply as a result of the natural properties of matter. And it is here, in this embryological reworking of classical atomism, rather than in the physiology of the already-formed animal-machine, that Descartes' real mechanism is to be found.

It is not Descartes, therefore, but Lamarck who develops an entirely mechanistic conception of life—a conception which both recognizes the specificity of life (unlike the Cartesian concept of the animal-machine) and also makes life fully dependent on the properties of matter (unlike the animism of Georg-Ernst Stahl or the vitalism of Xavier Bichat). Lamarck's quaintly outdated physics, which was scientifically untenable even in his own day, should not blind us to the magnitude of his achievement, Pichot argues. For Lamarck's philosophical project still stands as a model (although one constructed with inadequate resources) of what modern biology has as yet been unable to achieve—a coherent concept of the specificity of life within the cognitive framework of the natural sciences.

Pichot's two post-Lamarckian chapters deal with 'Claude Bernard and experimentalism', and with 'Charles Darwin and Darwinism', respectively. His analysis here not only highlights the scientific advances made in these areas of biology (Bernard substituting physico-chemical determinism for Lamarck's mechanism, and Darwin substituting a selective evolutionary process for Lamarck's transformism), but it also seeks to demonstrate the philosophical shortcomings of later biological thought in comparison with the more comprehensive Lamarckian project.

Finally, in the book's conclusion, Pichot briefly sketches his own proposal for a scientifically adequate concept of the specificity of life, following Lamarck's strategy of according temporality a fundamental role in the notion of life itself. This sketch seems promising as an outline for further development and certainly serves to establish the plausibility of the philosophical approach that Pichot is advocating, but one would need to see it worked out more fully before attempting to evaluate it.

While Pichot's *Histoire de la notion de vie* concerns itself with biological rather than medical thought, historians of medicine who have epistemological interests will find informative comments on a number of classic medical thinkers in this book. Apart from the physicians already named above, Pichot deals at some length with Hippocratic writers, Jean-Baptiste van Helmont, William Harvey, Hermann Boerhaave, and Friedrich Hoffmann; and in passing with several others. Some of Pichot's incidental judgements seem historically a bit quirky—as when he accuses first Albrecht von Haller (p. 424), then Hoffmann (p. 502), and finally various Darwinians (p. 789) of "bad faith" in their theoretical formulations—but the central strands of his discussion are tightly argued and amply documented.

This is a book that makes substantial demands on the reader, but it is one that many historians of medicine should find well worth the effort.

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Lara V Marks, *Model mothers: Jewish mothers and maternity provision in east London, 1870–1939*, Oxford Historical Monographs, Oxford, Clarendon Press, 1994, pp. xxi, 320, £35.00 (0-19-820454-X).

This well-researched and innovative study takes an intriguing paradox as its starting point. In the late Victorian and Edwardian eras, London's East End was notorious for its poverty and squalor—not surprisingly in view of its high concentration of unemployed, of casual labourers and of first-generation immigrants. In many respects, the Jewish community, concentrated around Whitechapel, attracted the chief attention, constituting what John Major might have termed the worst "eyesore". Having just fled from the ghettoes of Eastern Europe, many East End Jews were exotic in their appearance and ways and spoke

https://doi.org/10.1017/S0025727300060178 Published online by Cambridge University Press