

clearer still while always faithful to the source material. Gaukroger has also written an excellent introduction that provides an account of Bonnet's scientific and philosophical context and a systematic and careful exposition of the book's key arguments. The introduction concludes with a discussion of Bonnet's account as "philosophical medicine." If the basis of human behavior and identity is physiological, then we need to understand how the environment (both physical and social) affects this physiology. The health of the human body turns out to be inseparably linked to the health of society. This final section is productively read alongside Gaukroger's chapter "Anthropological Medicine" in his magisterial *The Natural and the Human* (Oxford University Press, 2016).

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Trevor Pearce. *Pragmatism's Evolution: Organism and Environment in American Philosophy*. Chicago: University of Chicago Press, 2020. Pp. xii+365. \$105.00 (cloth); \$35.00 (paper). ISBN 978-0226719917.

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Trevor Pearce's book is an impeccably researched and insightful exploration of the history of the philosophical movement known as pragmatism in the light of key developments in biology in the late 1800s and early 1900s. Unsurprisingly, discussion of evolution looms large, but Pearce's discussion stretches far beyond Charles Darwin. Instead, he foregrounds an analysis of life and experience as the interaction of an organism with its environment that was first developed by Herbert Spencer, and he demonstrates how this analysis resonated through successive generations of pragmatist philosophy. In fact, Pearce argues that Spencer was a much more important influence on the early pragmatists than Darwin (332). There are also rich discussions of August Waisman's "germ-plasm" hypothesis—a precursor of DNA theory—which emerged and explicitly contested Spencer's assumption of Lamarckian evolution, and Edward Drinker Cope's theorization of evolution as a progression from adaptability to automatism, among other contemporary scientific figures.

Pearce traces the influence of these then-live scientific debates on three carefully compiled "cohorts" of pragmatists. He succeeds wonderfully in capturing some of the intellectual excitement that the early pragmatists must have felt in learning about these new discoveries and drawing on them to develop what were then cutting-edge conceptions of "scientific philosophy." This sense of a ringside

seat to exciting new knowledge is greatly aided by the fact that Pearce organizes his cohorts by the year they graduated college, presenting a wealth of new research from college archives to illuminate individual pragmatists' growth trajectories as students and "early career researchers." The breadth and depth of Pearce's archival research is extraordinary. Josiah Royce's lecture notes, the books that John Dewey and W. E. B. Du Bois checked out of the library, and William James's teaching evaluations are all tracked down and mined for insight into these thinkers' influences and specific preoccupations across time.

Another valuable feature of the book is that Pearce looks beyond the usual (so-called "classical") pragmatist suspects to build his narrative. Thus while cohort 1 (graduating 1851–69) consists of Charles Sanders Peirce, William James, and the other thinkers of the first Metaphysical Club such as Chauncey Wright and Oliver Wendell Holmes, cohort 2 (graduating 1875–98) consists not only of Dewey, Royce, and George Herbert Mead but also Du Bois and Jane Addams, who are equally positioned as founding figures of pragmatism. Once Addams and Du Bois are so positioned, the choice to include them can be seen as entirely fitting, as they were equally well networked and engaged in cross-cohort intellectual dialogue. Moreover, given that these two thinkers' ultimate interests ended up falling outside of academic philosophy, their inclusion presents a fresh perspective on early pragmatism's scope and animating ideals.

With cohort 3 (graduating 1900–1916), we begin to see change in the pragmatist movement, insofar as its most well-known member, C. I. Lewis, is not so directly scientifically engaged—although, again, Pearce's inclusion of Alain Locke and Grace de Laguna in the cohort offers valuable enrichment of the usual narratives. The fourth cohort (graduating 1919–39) contains figures such as W. V. O. Quine, Nelson Goodman, Susanne Langer, Charles Morris and Donald Davidson, and the fifth (graduating after World War II) consists of neopragmatists such as Richard Rorty and Richard Bernstein. These final two cohorts receive only brief discussion because, it is claimed, biology figured much less prominently in their thought (16). One of the fascinating issues that the book raises, but does not really answer, is why this came to pass.

The book's first five chapters roughly trace its cohort chronology, with each chapter also foregrounding a specific aspect of the developing landscape of evolutionary science, richly tracing its impacts on the pragmatist philosophy of the day. Chapter 1 focuses on how members of the Metaphysical Club, who met in the early 1870s, reacted to the publication of Darwin's *Origin of Species*. Pearce suggests that it was Chauncey Wright and John Fiske who convinced Peirce, James, and other group members to begin taking evolution seriously. Chapter 2 introduces Spencer's highly influential model of organism-environment interaction and charts its impact on the first cohort. Although these pragmatists were

impressed by the model from a scientific standpoint, they also contested the cold-hearted “laissez-faire” sociopolitical implications that Spencer drew from it (this is particularly true of James and, later, Peirce).

With chapter 3, “Evolution at School,” we progress to the second pragmatist cohort. Evolution is now scientific orthodoxy, and we see Royce, Dewey, Addams, Mead, and Du Bois all studying it at college, with Spencer’s writings serving as canonical texts. Chapter 4, “Hegelianism Needs to be Darwinized,” stays with the second cohort, offering a nuanced and unusually scientifically informed account of how the relationship between evolutionism and Hegelian idealism was hashed out in the early research careers of Dewey, Royce, and Du Bois. Chapter 5, “Weismannism Comes to America,” concerns the 1890s appearance of the “germ-plasm” (or “gene”) hypothesis, as the first serious biological expression of the idea that acquired characters cannot be inherited. This chapter is a story of crisscrossing scientific debates, as we see A. Weismann contesting Spencer’s Lamarckianism, while Peirce expresses sympathy with Lamarckianism but contests Spencer’s mechanism, arguing strongly for the importance of chance in evolution. Pearce succeeds admirably in making the details of these scientific controversies accessible to a general audience without sacrificing depth or rigor.

The final two chapters, which advance to the turn of the twentieth century, center philosophical themes: “pragmatist ethics” and “pragmatist logic.” In the ethics chapter, Pearce describes how pragmatists such as Dewey, Mead, Addams, and Du Bois put social reform into the frame of ethical discussion as a matter of course, maintaining a keen eye on Spencer’s organism-environment nexus. As these philosophers understood experimentalism to be the essence of pragmatist philosophy, it seemed natural to them to embrace “experiments in living”—a particularly notable example being Addams’s Hull House, located in the slums of Chicago. This groundbreaking project, which almost single-handedly inaugurated the profession of social work in the United States, inspired many further “university settlements,” including one that Du Bois founded in 1897 to study “the social condition of the Colored People of the Seventh Ward of Philadelphia” (266). Meanwhile, at the University of Chicago, Dewey founded a primary school as a “laboratory of education” (265) from which he and others learned a great deal. One feels a certain nostalgia for the hope and energy invested in these projects, and it is interesting to reflect on how and why the philosophical study of ethics has largely retreated to today’s more rarefied theoretical (often metaethical) plane. The specter of eugenics as “reform,” which Pearce sensitively touches on at the end of the chapter, perhaps offers some clues.

In the final chapter on pragmatist logic, I felt that Pearce began to make more hard work of his experimentalist perspective by seeking to subsume pragmatism under a “natural history approach to logic” with roots in “psychological and

educational research.” Certain important questions are arguably begged by viewing logic as “a mode of adaptation” (306) to a situation, whereby “the instruments of logic are grounded in [the] practical aims of biology” (313)—namely, the need for logic to serve as a normative rather than descriptive science. To his credit, Pearce does raise these questions through the mouthpiece of Peirce, who we see strongly criticizing a copy of *Studies in Logical Theory* (1904) that Dewey sent him. But Pearce seems overly quick to dismiss the points that Peirce makes against Dewey as merely the result of Peirce’s “personal hurt” (308) for Dewey not citing him. In my view, the chapter’s second half—which passes from biological reductionism to a broader experimentalism—does more justice to this important area of philosophy.

One of this book’s main strengths is its remarkable comprehensiveness. Pearce offers a thorough and nuanced analysis of the history of pragmatism, covering both major figures and a host of lesser-known contributors. He also explores a wide range of the debates and controversies that arose in pragmatism’s early years, providing readers with a clear understanding of the different positions and arguments put forward. One might fault the book for not leveraging its fresh take on pragmatism’s early animating ideals to engage more deeply and critically with contemporary debates about pragmatism’s value and relevance. But perhaps such a task would be best attempted in an entire follow-up volume. I would be most interested in reading a discussion of this kind. Overall, *Pragmatism’s Evolution* provides an original and illuminating introduction to the history of pragmatism and its major figures that is accessible to all levels of readership, from undergraduates to research scholars. I thoroughly enjoyed the book and commend it to all readers who are interested in learning more about the history of science and the history of pragmatism.

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*Logical Empiricism and the Physical Sciences: From Philosophy of Nature to Philosophy of Physics* introduces us to the philosophy of physics of logical empiricism. However, here the expression “philosophy of physics” does not refer to a consolidated