

BOOK REVIEW:  
PRAGMATISM'S EVOLUTION

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Trevor Pearce,  
*Pragmatism's Evolution: Organism and Environment  
in American Philosophy*  
Chicago: University of Chicago Press, 2020. xiv+367 pp.  
ISBN: 978-0226719917 (Paperback: \$35.00)



*Volume 6 · Number 2 · 2022 · Pages 115 - 119*

*Pragmatism's Evolution* is the result of a thorough archival investigation of the many connections between early Pragmatism and nineteenth and early twentieth century evolutionary theory. This archival work yields an institutional history of early Pragmatism, for Pearce's work carefully considers how the Pragmatists' courses of study and the teachers who taught them shaped their work. While the book focuses on how the conceptual and experimental landscape of biology and related sciences were reshaped as a result of the Darwinian earthquake, this approach can be likened to that of a *Bildungsroman*: Pearce shows us how four of key figures of Pragmatism became the thinkers they were through their engagements with the biological sciences of the day, first as students and then as thinkers in their own right.

Pearce focuses on Peirce, James, and Dewey, but not exclusively. While his research on these three thinkers sheds new light even on this comparatively well-trod ground, he expands the cast of characters to include thinkers who are less well-known through a focus on educational cohorts. Looking at where Pragmatists were educated and who taught them provides valuable clues for understanding these thinkers, ones that will no doubt prove valuable for future researchers. And, following Cornel West, Pearce expands the circle of Pragmatists to discuss the role of nineteenth and twentieth century evolutionary biology in the work of Jane Adams, W.E.B. Du Bois, and George Herbert Mead.

Scholars have long noted the influence of evolutionary thinking on the Pragmatists, though it is often assumed that Darwin's evolutionary theory provides the touchstone here. Pearce shows that this is largely mistaken: while reflection on Darwin's theory of natural selection is present, we get a distorted view of the role that evolution plays in early Pragmatism if we focus solely on Darwin. Much more significant for Peirce, James, and Dewey is the work of Herbert Spencer and August Weismann. It would be worth reading if it only made the case for Spencer and Weismann as the key thinkers informing the early Pragmatists' engagements with evolutionary biology. But the book does much more. Changing the focus from Darwin to Spencer in particular can help us to better see the significance of evolution for Pragmatism in its early years. Pearce focuses on the years 1860-1910 because it is during these years that the Pragmatists' engagement with evolutionary thinking is most pronounced, though key terms such as "environment," "experiment," and "habit" derived their meaning in least in part through their engagement with evolutionary thought and Spencer's thought in particular, and of course these terms remain significant long after 1910.

The book's first chapter examines how members of The Metaphysical Club made sense of Darwin's *Origin of Species* shortly after its publication in 1859 before turning to a consideration of Spencer's challenge to Darwin's account of adaptation through natural selection in Chapter Two. The third chapter turns to the second generation of Pragmatists in order to show how evolutionary theory was taught, with a particular focus on how it affected graduate education in philosophy and related fields toward the end of the nineteenth century. The fourth chapter turns to Hegel and evolution, while the fifth chapter explores the work of a thinker even less well-known than Spencer, namely the German biologist August Weismann. The final two chapters explore how Pragmatist theories of ethics and logic were formulated through this encounter with evolutionary thought.

Darwin's *Origin of Species* was published in 1859, and Pearce shows how Darwin influenced the first cohort of Pragmatists including Peirce and James as well as older members such as Chauncey Wright. The most influential naturalist in the United States from the mid-nineteenth century into 1870s was Louis Agassiz, a staunch opponent of evolution. Although Agassiz acknowledged biological change, he denied that this change could have come about naturally; it required divine intervention. The young Peirce and James were students of Agassiz as well as members of the loosely-organized Metaphysical Club. Peirce studied with Agassiz briefly but during a period when Agassiz was formulating his critique of natural selection in the mid-1860s. During this period, James came to identify himself as a naturalist and studied with Agassiz while closely reading *The Origin of Species* (41). James finally judged Agassiz a brilliant naturalist but "close-minded and biased when it came to evolution" while serving as a member of Agassiz' Amazonian expedition in 1865 (44-45). Here he sided with the more members of The Metaphysical Club such as Chauncey Wright and John Fiske who published philosophical critiques of Agassiz and his allies arguing that evolutionary change was immanent to nature (49).

Pearce next recovers Herbert Spencer's thought and shows the profound influence his thought exerted on Pragmatists during this period. Mostly forgotten today, Spencer was once thought to have been the "greatest Englishman since Shakespeare" (cited on p. 58). Spencer argued that evolutionary change was a function of environmental factors, a view Peter Godfrey-Smith has dubbed "externalism" (73). James in particular argued against Spencer's externalism, since it rendered individual organisms passive and minds simply the products of environmental factors (77). While he certainly did not deny the role that environmental factors play in evolution,

he thought that individuals could shape their environment. More specifically, James sought to replace Spencer's organism-environment model with a model that included a third term, interests. "That is, subjective interests--whether innate or acquired--inevitably shape our experience. Whereas we marvel at the sculpted agony of Laocoon, dogs care only for 'the odors at the bases of the pedestals.'" Spencer's theory, said James, could not explain this difference (81). And it is individual consciousness that determines interests for James (83).

The third chapter looks at the teaching of natural history in the schools where the second cohort of Pragmatists pursued their graduate education and shows that by the 1880s most courses were taught by proponents of evolution. Jane Addams, George Herbert Mead, and W.E.B. Du Bois were all taught natural history by teachers who sought to reconcile evolution and religion. They did not simply accept their teachers' accounts but also sought to understand more materialist accounts of evolution, and by the time this second cohort of Pragmatists became teachers in the 1880s and 1890s, philosopher had begun to consider Spencer's externalist account of evolution. Second cohort pragmatists sought to augment Spencer's theory by turning to idealism, thereby formulating "a dialectical account of the organism-environment relation" (157).

Unlike later twentieth century interpreters of Pragmatism, Dewey and Mead saw Hegel and Darwin as part of a broader return to history. "Thus for Dewey, Hegel's dialectic was part of a broader nineteenth-century obsession with history, growth, and evolution" (167). On their account, the organism and environment comprise a dialectical relationship coordinated in a single process of life and experience (179-180).

The fifth chapter undercuts this identification of the pragmatists as evolutionary idealists by turning to the vexing problem of biological factors and their role in biological variation. What exactly are the factors of evolution, and is natural selection sufficient to account for biological variation? German biologist August Weismann distinguishes three factors that account for evolution, including "direct action of the medium," "natural selection," and "modifications of structure caused by modifications of function." Spencer thought these three factors corresponded to three different phases, with the first being key for the development of single-celled organisms and the second for more complex organisms. The third factor was most important for higher-order animals such as humans; it was the Lamarckian factor (201). Weismann denied Lamarckian inheritance of acquired traits and was hence dubbed Neo-Darwinian. Today we tend to think of Lamarckian accounts of evolution

as dead-letters, but certainly was not the case in the 1880s. Indeed, Peirce's account of habit derives in part from a consideration of Lamarck. "According to Peirce, Lamarck's was a 'third method' of evolution that, in good Hegelian fashion, 'superseded' the opposition of these other two while retaining their important aspects. Central to this method was 'habit-taking,' the action of which is 'essentially dissimilar to that of a physical force; and that is the secret of the repugnance of such necessitarians as Weismann to demitting its existence.'" (221, citing "Evolutionary Love"). Pearce shows how Dewey responded to the Spencer-Weismann debate of the 1890s by adopting a dialectical account of the organism-environment relation and an anarchist politics. If Weismann is wrong and there are other (Lamarckian) factors in addition to natural selection, then social progress becomes possible because present generations can inherit and build upon past cultures. If natural selection is the only factor, then social decline becomes inevitable once the struggle for existence ceases (235). However the struggle for existence could serve as an engine for social progress, it is this view that Dewey continues to espouse, which brings him closer to Weismann than Jane Addams, who believed that Spencerian social harmony was the key to progress (241).

The final two chapters of Pearce's study take him away from the pragmatists' direct debates about evolution in order to consider how evolutionary theory impacts their accounts of ethics and logic. Pragmatism espouses an experimentalism that derives from their engagement with the biological sciences of their time. Ethics, psychology, and logic are all different forms of experimentalism.

This rich study should provide the starting point for future researchers interested in the connections between the early pragmatists and the biological sciences of their day. But it does much more: it places the key pragmatist thinkers within various intellectual contexts and reminds us of the importance of thinkers such as Herbert Spencer and August Weismann for understanding evolutionary theories at the end of the nineteenth century. Whereas most accounts of Pragmatism and evolution focus on Darwin, Pearce reminds us that evolutionary theory was very much a debate during this period, and the terms of the debate shaped Pragmatism in ways that Pearce's book helps us to better understand.