

Second, with these papers laying out the history of particular places, one hopes for more comparative work in the future. For example, businessmen in both civil and common law systems faced similar problems in bankruptcy, but solved them in different ways. How did the differences affect early modern outcomes? The final essay in the volume, “Bankruptcy, Fresh Start, and Renegotiation in England and France (17th to 18th Century),” by Jerome Sgard, is a step in this direction, but its focus is legal–political rather than economic.

Finally, while several essays emphasize what the editor calls the “centrifugal force” (p. 10) of default and bankruptcy that also can be found, for example, in the literature on the financial crises of the Great Depression, insufficient attention is given to either the long-run trend (that is, early globalization) or the short-run shocks that made default and bankruptcy more and more common and business more and more unpredictable. In seeking to understand the transition from a world in which bankrupts were viewed as frauds to one in which they were viewed as victims of unforeseen circumstances, the increasing exposure to market forces must be discussed.

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Carsten Herrmann-Pillath, *Foundations of Economic Evolution. A Treatise on the Natural Philosophy of Economics*. New Horizons in Institutional and Evolutionary Economics series (Cheltenham, UK, and Northampton, MA: Edward Elgar, 2013), pp. xxxi + 663, \$150 (hardcover). ISBN 978-1-84720-474-5 (hardcover); 978-1-78254-836-2 (ebook). doi: 10.1017/S105383721500084X

This book is one more intervention in an illustrious controversy: the one between supporters of the formalist view of economics, such as Lionel Robbins, and those of the substantive view, such as Karl Polanyi. This book gives an unexpected twist to the controversy by trying to prove the simple impossibility, on logical grounds, of adopting the formalist view. The argument is that economic theory can be anything but a theory about the *economy*; not a theory of the economic agent about itself. After the grand philosophical thesis, the book goes on to illustrate an ambitious project for reconstruction in economic theory. It consists, in Herrmann-Pillath’s words, in the “humble task” of putting together “the ideas of others.” What the author adds is an attempt to prove the robustness of his conclusions by having recourse to William Whewell’s notion of consilience. This means literally a kind of “jumping together” by the linking of facts and fact-based theory across disciplines in order to create a common ground of explanation. By Whewell, it was employed as a key to a new view of the logic of induction, which—John Stuart Mill’s scorn notwithstanding—exerted a remarkable influence in nineteenth- and twentieth-century philosophy of science.

Another philosophical notion, the idea of performativity, has an important role to play in the project. The claim is that economics is to be defined not so much as what *economists* do but rather as what *economics* does; that is, “economics is one of the determining forces of the emergence of economic systems, or of markets. Economics actually co-creates the economy” (p. 53) and “institutions emerge from the causal

interactions between signs that emerge in human interactions, taken as physical entities, and neuronal structures which determine behavioural dispositions" (p. xxviii). As Herrmann-Pillath willingly admits, this too is a claim that has been already advanced by others.

As announced, the book puts together results from different disciplines or subdisciplines of economics (thermodynamics, evolutionary biology, semiotics, institutional studies, the cognitive sciences, neuroeconomics, network theory, ecological economics, evolutionary theories, the economics of institutions) and tries to assemble a conceptual framework for understanding different constituents of the economy: individuals, networks, institutions, technology, and markets. The table of contents organizes the forty-two chapters of the book into eight parts: 1. Ontology; 2. Causation; 3. Evolution; 4. Individuals; 5. Networks; 6. Institutions; 7. Technology; 8. Markets. The treatment of such a body of different subjects is meant to illustrate and spell out a program of *naturalization of economics*, avowedly trying to build a synthesis out of results already reached by many economists in the last decades who—the author suggests—were contributing to an unintended result: the naturalization of economics. Herrmann-Pillath's own version of the program is meant to be inspired by Charles Sanders Peirce's philosophy. The main claim in this philosophy, masterfully stated in the famous 1868 essays (Peirce [1868a] 1935; [1868b] 1935), is rejection of the Cartesian mind-matter dualism, which is simply a delusion, or a trap. Herrmann-Pillath insists that dismantling such a naive view is tantamount to exorcising the ancient philosophical ghost of Platonism, or the claim that concepts are entities belonging to "a separate 'ideational' domain of the world" (p. 32)—precisely the claim to which Karl Popper's epistemology in its last version came back—and, in addition, he opposes positivist and hermeneutic views of knowledge in the natural and the social sciences as being just two complementary pictures of one conundrum, both arising from a below-the-waterline implicit (and naive) view of the observer-object-sign relationship (pp. 29–32).

One comment the present reviewer would like to make is that the epistemological thesis is fine and we still have to make the most of Peirce's pragmatism, but this philosophy implies also rejection of *both* idealism and materialism, and there are a few hints, instead, that Herrmann-Pillath's own scientific program, to interpret the human economy as "a natural phenomenon by which the Earth System increases its capacity to dissipate energy and thus to achieve states that are further away from equilibrium" (p. xxx), sounds more like nineteenth-century crude materialism than *fin de siècle* pragmatism. See, for example, how the author describes his own enterprise: "A naturalistic approach to economics which treats the economy as an evolving physical system of knowledge which is governed by fundamental functions of harnessing and dissipating energy" (p. xxxi).

Another comment, rather in the same spirit, could be that Whewell was a great thinker who has still a lot to suggest, and consilience is a great idea, but that Whewell would not have appreciated too much use made of his idea by biologist Edward Wilson—the father of sociobiology and among Herrmann-Pillath's sources of inspiration—as a way to jump from individual sciences to a "scientific world-view"; that is, to a "metaphysical world view" or to science as "religion liberated and writ large" (Wilson 1998, p. 9). Whewell, a very reserved person, a serious historian of science alien to metaphysical world views, and a rather orthodox Anglican priest, would not have been pleased at all.

The third, and last, comment is that a novelty announced in the book—the project to base *naturalization* in economics on *natural philosophy*—sounds rather odd. “Natural philosophy,” an English translation for the Latin *philosophia naturalis*, shows up in the early eighteenth century and persists up to about 1850 as a name for “science,” substituted after 1850 by the latter term. *Naturphilosophie* is instead a German term indicating Friedrich Schelling’s own scientifico-philosophical approach to the study of nature and its Romantic follow-up (Kaulbach 1984). The term is used occasionally in contemporary spoken German, referring strictly to metaphysical world views of the Edward Wilson kind cherished by non-academic currents such as the New Age and Deep Ecology. But the source of confusion in the book is that *natural philosophy* is not a passable translation for *Naturphilosophie*.

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Floris Heukelom, *Behavioral Economics: A History* (New York: Cambridge University Press, 2014), pp. xii, 223, \$34.99. ISBN 978-1-107-03934-6.

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A few years back in this journal, Ivan Moscati published a passionate plea for historians of economics to pay more attention to contemporary economic controversies. Using serious history of economics to contribute to current debates was, to Moscati (2008), a way both to make historians of economics more relevant to a broader community of economists and scholars, and to secure the survival of history of economics as a vibrant subdiscipline of economics. A prime target for Moscati-style history of economics would seem to be behavioral economics, which became part of the mainstream relatively recently and raises a series of interesting issues of history, philosophy, and methodology. In spite of its meteoric rise, however, behavioral economics has remained under-studied by serious historians and philosophers of science. The absence of such work has consequences: among other things, it can be argued that a hazy understanding of what behavioral economics is and where it is coming from continues to befuddle practitioners and critics alike.