

BOOK REVIEWS

Mie Augier and James G. March (Eds), *Models of a Man: Essays in Memory of Herbert A. Simon* (Cambridge, MA: MIT Press, 2004) pp. xv, 553, \$45, ISBN 9-780262-012089.

There are two effects associated with the name of English chemist and physicist Michael Faraday. The first, and perhaps best known, concerns Faraday's discovery that an intense magnetic field can rotate the plane of polarized light. The second, and relevant for our review, involves the efforts of scientists to rewrite their own histories by providing post-hoc rationalizations of their efforts.¹ In the words of Faraday (1839, p. 2) himself: "These results I purpose describing [sic] not as they were obtained, but in such a manner as to give the most concise view of the whole." Family members, friends, colleagues, and students of science are subject to similar temptations when offering personal reminiscences of their interactions.

Because of the second Faraday effect, the endeavors of Herbert Simon and his associates (Langley, Simon, Bradshaw, and Zytrow (1987)) to use diary notations, thinking aloud protocols, and (auto)biographies to simulate the problem-solving activities of such eminent scientists as Black, Boyle, Coulomb, Kepler, and Krebs must be considered with a critical eye. After all, the team's efforts to demystify science by illustrating that scientific discovery is achieved by normal problem-solving processes were helped by "the most concise view of the whole" offered by the scientists and their associates. In addition, the second Faraday effect colors the personal reminiscences of Herbert Simon's family members, friends, colleagues, and students published in *Models of a Man: Essays in Memory of Herbert A. Simon*.

The title of the collection alludes to contributions by Herbert Simon such as *Models of Man*, *Models of Discovery*, *Models of Thought*, *Models of Bounded Rationality*, and *Models of My Life*. Through these different "models," Simon sought to establish the unity rather than the divergences among disciplines, in the opinion of the editors, Mie Augier and James March. Indeed, Simon saw complex, hierarchical systems everywhere, and also simultaneously conceptualized his own science as such a system (Sent 2001). As the editors quote Simon himself: "Out of this experience has come a picture of Simon as a complete monomaniac" (p. 6). And this reminds us once again of the second Faraday effect.

The more than forty short essays in the volume follow Simon as he traveled from political science to management theory to economics to cognitive psychology to artificial intelligence. They are from family members, friends, colleagues, and students such as Albert Ando, Kenneth Arrow, William Baumol, John Conlisk, Richard Day, Giovanni Dosi, Peter Earl, Katherine Simon Frank, Daniel Kahneman, David Kreps, Axel Leijonhufvud, Brian Loasby, Franco Modigliani, John Muth,

¹The term is due to Peter Munz (1995, p. 96).

Roy Radner, Paul Samuelson, Reinhard Selten, Vernon Smith, Oliver Williamson, and Sidney Winter. Each has a slightly different take on Simon's contributions. For instance, the editors suggest that decision making constituted the unchanging core of Simon's contributions. Gerd Gigerenzer proposes that Simon was guided by a desire to bring "sanity" into theories of rationality. Philip Bromily believes that explanations in terms of processes constitute a core of Simons approach to research. Robert Goodin argues that Simon's interest in public affairs remained undaunted throughout his career. And Raul Valdes-Perez believes that Simon's goal has always been to introduce more rigor into the social sciences. At the same time Joseph Pitt considers it "unfair to impose on the body of his work the illusion of a stultifying sameness" (p. 486).

As may be expected from a volume with this many entries, there are other instances in which the contributors propose different and sometimes conflicting insights. For instance, in the opinion of the editors, Simon believed that universally valid laws of nature exist and are discoverable by human reason. And Richard Day claims that Simon had a fundamental belief in Truth, which is obtained from facts. At the same time Pitt concludes that "logically speaking, for Simon it is not possible to have a true theory/model/science of man" (p. 489). Some contributors offer highly personal reminiscences, while others develop limited analyses. Some use their contribution mostly to showcase their own research. And nobody offers a critical perspective, which is not surprising for a eulogy.

The essays in the volume help clarify the complicated character of Simon's legacy in the different disciplinary domains through which he traveled. With respect to economics, Axel Leijonhufvud observes that there is a schizophrenic attitude towards Simon, as evidenced by the joint presence of Nobel and neglect. Kenneth Arrow argues in his contribution that Simon's insights were followed up by Amos Tversky, Daniel Kahneman, and behavioral economists. Yet, these were concerned with deviations from utility maximization as opposed to the overhaul advocated by Simon, as explained by Gigerenzer in the volume. Vernon Smith and Ferenc Szidarovsky suggest that Simon inspired their own contributions to experimental economics. At the same time, the notion of level of aspiration has been used by one of Simon's students, William Starbuck (1963), for the purpose of criticizing the basic apparatus Smith employed for laboratory experiments.² Roy Radner explains how bounded rationality may explain cooperation in game theoretic settings such as the Prisoners' Dilemma. At the same time, Day suggests that Simon was a strong critic of game theory. Michael Lovell observes that Simon's certainty equivalence played an important role in rational expectations economics. Charles Holt complicates the narrative by arguing that bounded rationality and rational expectations are complements. John Muth offers one answer to the puzzle concerning Simon's legacy in economics by suggesting that certainty equivalence clashes with Simon's overall views of human behavior.

Gigerenzer offers another insight into the "Simon puzzle," which is that bounded rationality has come to mean different things to different people as a result of its vague definition (also see Klaes and Sent (2005)). According to one interpretation, it involves optimization subject to constraints such as the cost of computation. As

²There is no entry by Starbuck in the volume.

Arrow rightly points out, this reading suffers from the problem of infinite regress.³ Ignoring such concerns, William Baumol advocates “optimally imperfect” decision-making, because—in a puzzling reflexive twist—optimization may not be the optimal approach to decision making. At the same time, Gigerenzer’s notion of an adaptive toolbox with heuristics is also subject to infinite regress concerns. For, the actor is free to choose from a repertoire of smart strategies and therefore needs to make decisions about how to make decisions, and so on.

Overall, the volume is a somewhat disappointing, disconnected collection of various often-uneven contributions that the editors did not convincingly connect or extensively edit. Yet, this is where historians of economics can jump in. Returning to the second Faraday effect, E. Roy Weintraub (2005) suggests in his 2004 HES Presidential Address, published in this journal, that “autobiographical memoirs themselves are documents, and are a genre of writing by economists of no less interest to a historian perhaps than economists’ writings on matters of high theory” (pp. 7–8). He concludes that “we historians of economics have a lot of interesting work left to do” (p. 10). It is precisely in this sense that *Models of a Man* must be appreciated: as a volume that offers insight into how various constituencies, including the two editors, try to offer specific perspectives on their interactions with Herbert Simon. As a result of the large number of personal reminiscences of its contributors, the volume is a rich source for historians interested in scientists rewriting their own histories in the sense of Faraday.⁴

Esther-Mirjam Sent
University of Nijmegen

REFERENCES

- Faraday, M. (1839) *Experimental Researches in Electricity, Vol. 1* (London: Richard and John Edward Taylor).
- Klaes, M. and Sent, E.-M. (2005) A Conceptual History of the Emergence of Bounded Rationality, *History of Political Economy*, 37 (1), pp. 27–59.
- Langley, P. et al. (1987) *Scientific Discovery: Computational Explorations of the Creative Processes* (Cambridge, MA: MIT Press).
- Munz, P. (1985) *Our Knowledge of the Growth of Knowledge: Popper or Wittgenstein* (London: Routledge and Kegan Paul).
- Sent, E.-M. (2001) Sent Simulating Simon Simulating Scientists, *Studies in History and Philosophy of Science*, 32 (3), pp. 479–500.
- Starbuck, W. H. (1963) Level of Aspiration Theory and Economic Behavior, *Behavioral Science*, 8 (2), pp. 128–36.
- Weintraub, E. R. (2005) 2004 HES Presidential Address: Autobiographical Memory and the Historiography of Economics, *Journal of the History of Economic Thought*, 27 (1), pp. 1–11.

³If cognition is costly, then optimizing cognition is also costly, leading one to optimize the optimization, and so on *ad infinitum*.

⁴If we are to believe Day’s characterization of such efforts, Simon may not approve: “It is now common practice to re-interpret a work so as to modify its intended meaning while at the same time investing the new meaning with the authority of the original author. That practice was anathema to [Simon]” (p. 88). Yet, this is a misinterpretation of the practice of history of economics, which is not something that requires explanation for readers of the *Journal of the History of Economic Thought*.