

Herbert A. Simon: *The Bounds of Reason in Modern America*. By *Hunter Crowther-Heyck*. Baltimore: Johns Hopkins University Press, 2005. x + 420 pp. Appendix, notes, bibliography, index. Cloth, \$49.95. ISBN: 0-801-88025-4.

Reviewed by Mary O. Furner

This immensely detailed, deeply researched, up-close intellectual biography of Herbert A. Simon better situates the man in his work than it does in his times. Unpacking difficult theoretical material, Hunter Crowther-Heyck effectively portrays this important social scientist's emergence in the late 1930s as a leading organization theorist and describes his migration in the succeeding six decades across disciplines—from public administration to mathematical economics to operationalism to cybernetics and systems theory—seeking the extent and limits of human rationality. Along with major figures of his generation—Talcott Parsons, Robert Merton, Edward Tolman, Kenneth Arrow, and others—Simon confronted the impact of issues raised by rapid social and technological change, interdependence, and human subjectivity on the classical Lockean-Smithian image of rationality. Trained at the University of Chicago in the depression years and initially a progressive who studied problems of municipal administration in San Francisco, Simon became absorbed in figuring out how people reach decisions within the organizational structures they inhabit and how social control (which he considered essential and beneficial) could be reconciled with individual freedom.

Crowther-Heyck details the major theoretical insights Simon achieved through combining a Parsonian “analytic realism” with increasingly abstract modeling strategies, facilitated from the 1950s on by innovative methods of computer modeling. As he studied behavior in both actual and gaming situations (playing chess and solving geometric proofs by computer), he became a critic of behavioralism. Yet even as Paul Samuelson and his students folded Keynesianism into the neoclassical synthesis that flourished in the postwar decades, Simon was critical of the assumption of rational maximizing that remained central to neoclassical economics. Acquiring theoretical sophistication in linear programming and cognitive psychology as he needed it, Simon gradually arrived at his trademark theories of “bounded rationality” and “satisficing.” He claimed that the individual was reasonably free, within limits imposed by the paucity of information and natural constraints on human ability to store, retrieve, and process information, yet more easily satisfied than the mythical maximizer with outcomes that she judged to be “good enough.” Over time, in cooperation with Allan Newell and others, Simon worked out a systems approach to decision-making in hierarchical organizations, in which those located at

lower levels operated according to conventions handed down from above or absorbed from the organizational culture, seldom objecting so long as the decisions fell in a “zone of indifference” where individual values were not violated.

Using the Graduate School of Industrial Administration he headed at Carnegie Mellon University after 1949 as a staging ramp, Simon pursued his interest in the sciences of choice and control in a climate shaped by corporate power, foundation largesse, and a cold-war military interest in maximizing weaponry effectiveness and maintaining operational control over far-flung organizations. Simon’s entrepreneurial talents generated funding from new sources, among them the Cowles Commission for Research in Economics and the Rand Corporation, which were both heavy promoters of mathematicization and modeling in economics, as well as the Ford Foundation, the Office of Naval Research, the National Science Foundation, and the National Institutes of Mental Health. In the 1950s, Carnegie Mellon had the largest university computer in the nation, the ideal tool for testing Simon’s theory that computer simulation was the key to modeling the decision processes of the human mind and testing the limits of rationality. Having started his journey by replacing the economists’ *homo economicus* with a docile *homo administrativus*, Simon used the computer to simulate the layered learning processes in which choices were informed, redirected, and improved by “feedback loops.” Using the computer to simulate the human mind permitted insights that restored a capacity for forming and reforming intentions, which behaviorism had stripped away, and revealed the more resilient, more capable *homo adaptivus* that Simon had arrived at as the more accurate model of modernity’s synthesis of choice and control.

Crowther-Heyck’s study of Simon’s turn from the scientism of Watsonian-Skinnerian behaviorism to a mind-centered cognitive psychology does less than it should to draw out the wider consequences of his subject’s influential career. Criticisms of his subject are briefly aired: Simon ignored emotion as an element in decision; his static model did not allow for human growth and development over time; computer programs he invented, such as Logic Theorist and General Problem Solver, fell far short of approximating human thinking. Between conflicting conceptions of planning—as an autocratic, elite-driven system of centralized control, or as the democratic, participatory process that pragmatists such as John Dewey considered it to be—Simon’s stated preference was for the more open-ended variant. Yet his mental models of decision-making in the adaptive human failed to demonstrate that he had deviated far from classical structural-functionalism, in which positions outside the mainstream were considered aberrant, unnatural, even antisocial. Assessing the motives behind Simon’s incessant, feverish pace of grant-seeking, experimentation, and publishing and conceding the tyranny he exercised

over colleagues at Carnegie Mellon, Crowther-Heyck concludes that Simon was not essentially careerist but was rather a zealous, converted evangelist for the one best way—a judgment colleagues he ruthlessly dominated might not have shared.

He barely considers the impact of Simon's so-called new institutionalism on the venerable institutionalist tradition in political economy associated with figures such as Henry Carter Adams, John R. Commons, and, in Simon's own time, John Kenneth Galbraith, which reached quite different conclusions regarding the possibility of human freedom, limitations to the substantive rationality of the market, and the efficacy of state action in achieving economic and social justice.

For a fuller sense of context and consequences, readers of this volume would do well to read it in company with Jeffrey Sklansky's *The Soul's Economy: Market Society and Selfhood in American Thought, 1820–1920* (2002), Michael Bernstein's *A Perilous Progress: Economists and Public Purpose in Twentieth Century America* (2001), and S. M. Amadae's *Rationalizing Capitalist Democracy: The Cold War Origins of Rational Choice Liberalism* (2003). Sklansky's account of a sociological turn in the social sciences that marginalized the economists' rational maximizer will help to situate Simon's very different kinds of objections to this paradigm. Bernstein's nuanced analysis of how the authority that U.S. economists had amassed during the Great Depression and World War II dwindled amid contradictions imposed by Lyndon Johnson's "guns and butter" strategy, and his lucid account of the triumphal return of *homo economicus* in academic and policy circles, leave open more questions regarding the convergence of individual and social rationality. Finally, Amadae's ambitious study of the rise of rational-choice economics, spurred by the theoretical innovations in economics and political science advanced by Kenneth Arrow, James Buchanan, Gordon Tullock, and William H. Riker, provides a basis for assessing the relative importance of Simon's work. Like Bernstein, Amadae works on a larger canvas than the one appropriated by Crowther-Heyck. He thus exposes the powerful validation that rational-choice theorists awarded to neoconservative demands, in the 1970s and after, for a withdrawal from statist intervention in a market system that their new paradigms framed as enabled by its own inherent rationality to assign resources and set prices according to the utilities of individuals whom these theorists saw as expressing—one by one—the only genuine rationality and the only defensible representation of a "public interest." Viewed, as these kinds of theories properly should be, as policy knowledge, both Simon's scientific contributions and his alleged preference for equality and democracy look rather different in the light of these associations. Taken within this broader framework, the present biography is a major achievement that is

especially valuable for its masterful decoding of Simon's often abstruse and always complex language and thought.

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