

autobiographical essays of the laureates are available at the Nobel website, with more in-depth essays available elsewhere. Interviews of many Nobel economists are provided in a variety of books, journals, and magazines. The *Karier* volume may be a good place to start, but it is not the place to stop.

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Robert Leonard, *Von Neumann, Morgenstern, and the Creation of Game Theory: From Chess to Social Science 1900–1960* (Cambridge: Cambridge University Press, 2010), pp. vi, 469, \$55.00. ISBN 978-0-521-56266-9.

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Robert Leonard's long-expected volume promises to be the definitive book on the early history of game theory. Since 1995, when he won the Best Article Award of the History of Economics Society, Leonard has indeed collected an amazing amount of archival evidence and interviews on how game theory changed the course of economics. It must be acknowledged that, notwithstanding the high expectations, the book accomplishes its goal admirably. It is beautifully written, in a lively *and erudite style* that avoids packing the narrative with lots of mathematical details. It is also an original and very personal book, but it encompasses most of what has been written on the topic. However, even those familiar with Leonard's remarkable series of papers will find new insights as well.

A first issue that is brought immediately to the reader's attention is the prominence of the Austrian tradition in the creation of game theory. Unsurprisingly, the most intriguing stories narrated by Leonard are those concerning the debates between Maier and Spann, and between Menger and von Mises, which point out the richness and the fertility of the pre-Nazi Wien, where Morgenstern started his scientific career. Greatly emphasized also is the role played in the 1930s by the Hungarian mathematicians and in particular by Lipot Fejer. Leonard's account also relies on the 1986 paper by Earlene Craver on the emigration of the Austrian economists, which remains one of the most significant contributions to the history of recent economics.

Leonard's volume is also a book full of heroes, willing to be key actors in this history. From this perspective, it is value added for the book that the central characters—and close friends—von Neumann and Morgenstern are depicted as less

epic than would be expected. The fathers of game theory are put under critical scrutiny to assess their actual contribution to the creation of game theory.

Von Neumann is alleged to have neglected the importance of psychological factors in modeling strategic interaction. In this light, the close resemblance between Leonard's interpretation of von Neumann's 1928 paper on the min-max theorem and Nash's discussion of the bargaining problem sounds revealing. On one hand, Leonard writes: "With existence proved, the game had been collapsed, reduced to its essential skeleton, and any psychological complications consigned to the periphery. The disinterest in psychology remained a characteristic of von Neumann's, including later, when his attention shifted from the chessboard and poker to the realm of politics" (p. 67). On the other hand, Nash introduced his bargaining model in this way: "In order to give a theoretical treatment of bargaining situations we abstract from the situation to form a mathematical model in terms of which to develop the theory" (Nash 1950, p. 156). Basically, what von Neumann and Nash expunged from their models was exactly the core of the strategic interaction: the psychological reasoning through which any social arrangement is eventually reached.

This is quite a controversial issue in the history of game theory. Actually, von Neumann and Nash shared the same approach to the use of formal language. In their view, the application of mathematics to economics should be structurally elegant and reduce the discourse to its main essence by basically disregarding the issue of empirical relevance. In retrospect, this argument seems even more decisive if, as Leonard claims, in the 1920s,

we have been too ready to attribute a smooth unity to von Neumann's efforts in economics, retrospectively seeing his forays into game theory and general equilibrium as somehow being of a piece, and thereby eliding the historical particularities of each. In 1926, von Neumann was interested in games and there is no evidence that he saw, at the time, any connection between them and models of economic growth (p. 66).

Another novel point the book makes is that von Neumann's contribution to the foundation of game theory was triggered by his "experience of the political tumult of the late 1930s, a truly dramatic period during which social questions drew much of his attention" (p. 5). After the 1930s,

his concern was now with the rationality of the social actor or unit, yet with the same relatively simple conception of psychology as before. His concern became that of understanding social coalitions, and a key element of his theory—the dependence of stable equilibria upon social norms—bears a striking resemblance to what was then taking place in Hungary and other countries, where seismic social shifts were being brought about by changing attitudes towards some groups, and the Jews in particular, codified in legislation. Building upon this central idea, von Neumann launched into the creation of a new social mathematics, game theory, providing analytical insight into the exercise of power and social discrimination (pp. 222–223).

Such a re-emergence of von Neumann's interest in social issue led him to break with Germany and to come back again to game theory. A further consequence of this development was that the concept of stable set became the cornerstone of the whole project, notwithstanding it was an amorphous concept when applied to real societies.

Leonard's assessment of Morgenstern's figure is even more critical. Morgenstern changed his mind on the methodological status of economics several times in his life: first, in 1925, when he broke with Mayer and Mises; and then in the 1930s when he met Carl Menger. Before that:

His theoretical writings, themselves a curious *mélange* of vague suggestion and harsh critique, reveal several concerns, from the emphasis on expectations, beliefs, and other psychological factors as the most important manifestations of time in economics; to the need to examine the logic and consistency of the field in a manner similar to that in the branches of mathematics; to the need to rid the discipline of all element of political apology (pp. 180–181).

As well, his papers “accomplished little theoretically” (p. 161). This feature would also explain Morgenstern's later turnaround in the early 1940s when he started working with von Neumann, with whom he acted more as a facilitator than in a peer-to-peer relationship.

Although this assessment describes Morgenstern's personality very well, it does not make sense of the harsh and constant criticism he addressed to neoclassical economics from the first papers in the 1930s to the end of his long research career. What is missing in this representation is that Morgenstern was particularly gifted for providing arguments for the *pars destruens* more than for the *pars construens*, and this was a key element for the foundation of game theory. An insight for understanding Morgenstern's figure is given by Leonard himself in describing his arrival to Princeton Department of Economics in 1938: “Once there, he found himself in a situation not dissimilar to the one he had left behind: amongst economists, of whom he was critical, looking elsewhere for stimulus” (p. 224). It was this intellectual curiosity rather than a special talent that explains the important role he played in the whole story narrated by Leonard.

Behind, and often above, the two main actors, Leonard offers a rich variety of characters who are essential to understanding the plot of the book. A brilliant example is the chess player and mathematician Emanuel Lasker. He is the first hero to appear in the book, and Leonard portrays his figure as remarkable. Lasker claimed to play chess as a psychologist, and his approach contrasted with those of two other chess masters, Tarrasch and Steinitz, “both of whom advocated a highly logical approach to chess and the idea that, for every position, there existed a theoretically optimal move, independent of the character of one's opponent” (p. 11). For this reason, Lasker is considered to be the precursor of the parallelism between social life and games proposed by von Neumann and Morgenstern. In a book written in 1941, Lasker anticipated the way in which Theory of Games modeled, three years later, the dynamics of coalition formation and stability (see pp. 244–245). Interestingly, Lasker was defeated in 1921, after a long supremacy, by José Raúl Capablanca, whose chess-playing style was exactly the opposite of Lasker's, being, in Lasker's words, “transparent and predictable as those of a mathematician.”

There is a whole cast of other characters in the book, from Zermelo to Hilbert, from Mayer to Wald, from Flood to Shapley. The final impression is that individuals, more than communities, are the engine of Leonard's history, because they represent the key force molding the communities around them. This is probably due to the fact that Leonard's narrative relies so heavily on letters and diaries as to make that history

real. Although in some pages there is an excess of self-reported information, Leonard manages it in a careful and attentive way, and this is what makes the book enjoyable and interesting at the same time. Sometimes, this approach leaves economic theory in the background. But Leonard is not one of those historians who speak directly to theorists. He is a captivating storyteller who thinks that history is not made of abstract concepts and theoretical models. Probably, what is missing in the book is a more vivid awareness that the history of game theory did not follow the course that von Neumann and Morgenstern envisioned. But this is all the subject of a book to be written when enough time has elapsed to gain a more complete picture of such a recent and controversial history.

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Agnar Sandmo, *Economics Evolving. A History of Economic Thought* (Princeton and Oxford: Princeton University Press, 2011), pp. vii, 489, \$45.00. ISBN 978-0-691-14842-7

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In his controversial book, Professor Sandmo reshapes both the traditional boundaries and the substance of our discipline, taking an unequivocal position on the future of the history of economic thought (HET). In his view, historians ought to focus simply on informing modern economists about the internal dynamics of their subject, in order to stimulate a better understanding of current economic theory, since “It is clearly undeniable that economics has many of the features of a cumulative science“ (p. 5), and, therefore, that “What is true of the past is true of the present” (p. vii). Consequently, one should focus primarily on those authors who are readily understood by (and/or compatible with) contemporary economists, while representing others in their appropriate roles as mere historical reporters.

The author’s style is remarkably clear, sober, and rigorous: the use of graphs and algebra is reduced to a minimum, and the language is deliberately non-technical and highly readable. Moreover, the author takes a commendable scholarly attitude, frequently using quotations from original sources, while each chapter contains a valuable reference to suggested readings.

Professor Sandmo’s historical discourse explores the development of economics in nineteen distinct chapters. Chapter 1 deals with the methodological assumptions of HET; Chapter 2 describes the works of pre-Smithian authors; chapters 3, 4, and 5 are dedicated to the Classical School (Adam Smith, David Ricardo, T.R. Malthus, and J.S. Mill); Chapter 6 delves into Karl Marx’s theory; chapters 7, 8, 9, and 10 analyze both the forerunners (J.H. Thunen, A.A. Cournot, Jules Dupuit, and H.H. Gossen) and the first generation of marginalists (W.S. Jevons, Carl Menger, Léon Walras, and Alfred Marshall); chapters 11 and 12 examine the second generation of marginalists (F.Y. Edgeworth, Vilfredo Pareto, A.C. Pigou, Knut Wicksell, and Irving Fisher); Chapter 13 considers the theoreticians of imperfect competition (Thorstein Veblen, E.H. Chamberlin, Harold Hotelling, Heinrich von Stackelberg, Frederik Zeuthen, and