

The Oskar Morgenstern Papers

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The purpose of this paper is to give readers a glimpse of some of the material in the Oskar Morgenstern Papers held at Duke University.

Oskar Morgenstern (1902-1977) was the author of 17 books and over 170 articles. He obtained his doctorate from the University of Vienna in 1925, where he was influenced by Hans Mayer, Karl Menger and Eugen von Böhm-Bawerk. His early work focused on the difficulties and paradoxes inherent in economic prediction, particularly the influence of prediction upon the event predicted. There was also much discussion during this period, to which he contributed, about "the whole problem of expectations and foresight [which] is really one involving time". Promoted to Professor at the University of Vienna in 1935, he became Director of the Austrian Institute for Business Cycle Research. He was also active in the "Vienna Circle", an intellectual group containing among other, Karl Popper, Kurt Godel, Karl Menger and Moritz Schlick.

Many readers will be familiar with Morgenstern's *On the Accuracy of Economic Observations* (1950) and the *Theory of Games and Economic Behavior* (1944) (with John von Neumann). They may have also read his paper on "The Collaboration between Oskar Morgenstern and John von Neumann on the Theory of Games" in the *Journal of Economic Literature* (Vol. 14, No.3, September 1976, pp. 805-816) or his trenchant critique of orthodox micro theory in "Thirteen Critical Points in Contemporary Economic Theory: an Interpretation", also in the *Journal of Economic Literature* (Vol. 10, No.4, December 1972, pp.1163-1189).

Yet few might know of Morgenstern's lively interest in the history of economics. In fact he taught the subject and published in the area. At one stage he was interested, in collaboration with Machlup, in locating material about the "Mises Seminar" and the Economics Society in Vienna. The papers of the latter were originally housed in his former Institute of Business Cycle Research. Morgenstern's aim was to help write an autobiographical history of the period.

Much research had already been completed on writing a history of game theory. Morgenstern desired:

to write a piece on the early precursors of Game Theoretical approach to behavioural science, particularly to Economics ... I have gathered a considerable amount of material which points out the awareness of eminent scientists in the past that some pattern of social behaviour may be regarded in terms of strategy, gaming and alike. This can be traced as far back as to Aristotle, Leibnitz, and in more recent centuries to Gauss, Reiss, Borchete. It seems, then, that the theory that von Neumann has established was a necessary development in behavioural sciences ... Many scholars have urged me to complete this history.¹

Indeed, we find in Box 15 two huge folders of material on the history of game theory with much correspondence etc. on the topic. Unfortunately, the National Science Foundation turned down the proposal for funding and so the history was never written. But the research materials assembled remain invaluable for anyone interested in the development of game theory.

Box 2 covers the correspondence from 1930-39. There we find his correspondence with Keynes, J.M. Clark, Knight, Hayek and Haberler (the latter two files are, except two letters, all in German). There is little of interest in the Keynes-Morgenstern correspondence except one letter by Keynes, dated

February 14, 1934, where he says that "there is so much which now seems to be faulty" with references to the *Treatise*.

The most interesting interchange occurs with Frank Knight, particularly with respect to Knight's "depression" on the state of economics and on that other Depression of the 1930s. Knight laments:

I wish I could talk to you and also Hayek especially, and Haberler too (and Mises I should add but I didn't find it easy to learn from him, he seems so narrow and unsuspecting, as does Haberler - 'between us!'). I have gotten interested in this damned crisis business. I'm convinced we must have a *real* gold standard (if not a commodity standard) ... reduce commercial banking and credit issue to very low volume ... so as to restore the price level of 1928-9.²

In a similar context, Knight writes "What do you think of Keynes's book? I haven't got into it yet, but a couple of friends whom I consider pretty competent judges say outright that Keynes is losing his mind."³ Further, he writes:

I put a class through [Hicks's *Value and Capital*] last spring, and am afraid it contributed something to my state of discouragement as to the state and prospects of our profession. I've never really 'gotten over' the shock I received from reading Keynes's *General Theory*, and even more the way it was been received by economists, particularly of the younger generation.⁴

On another topic, capital theory, in which Knight was making his own contribution, we find him complaining that "I haven't seen anyone who could tell what Hayek and Sraffa were arguing about" and that:

I wish [Hayek] or someone would try to tell me in a plain

grammatical sentence what the controversy between Sraffa and Hayek is about. I haven't been able to find anyone on this side who has the least idea. One conviction I do have ... is that any theory of cycles or any other phase of economic life based on Böhm-Bawerk's theory of capital is necessarily and egregiously wrong ... There is no such thing as a time length of the production process, still less any possibility of defining capital in such terms.⁵

Morgenstern's interest in the consequences for economic theory of relaxing the perfect foresight assumption led him to work with John von Neumann at Princeton in 1939. Morgenstern speaks of "The great period here in Princeton when I was happy and fortunate enough to move constantly in a circle made up by von Neumann, Pauli, Einstein, Oppenheimer, Weyl, Godel and many others".⁶ Morgenstern's diaries should be invaluable here and elsewhere. There are 71 volumes of diaries but all in German and as yet untranslated. His regular conversations with Einstein for example, which are recorded in the diaries, would be most interesting to read.

At Princeton, Morgenstern was able to assemble a large number of high quality students to further the development of game theory in his Econometric Research Program. These included John Nash, Lloyd Shapley, Martin Shubik, Gerald Thompson, Robert Aumann, William Lucas and Herbert Scarf. One of his correspondents talks of an "Israeli 'tradition' in game theory" which "was born in Princeton and received its most fruitful ideas from you". This work was later further carried on at the Hebrew University of Jerusalem.⁷

Morgenstern was a tireless advocate for the application of game theoretic concepts in economics, and he subjected existing economic theories of demand, capital, and competition to withering criticism. His critique of orthodoxy led him into conflict with other economists and his colleagues at

Princeton. A large part of the profession remained sceptical of, or indifferent to, the uses of game theory in economics during his life. Only in the 1980s did we see a significant resurgence of interest in game theoretic approaches in micro and macro, and especially in the industrial organisation literature. It now appears to be increasingly *the* dominant approach in economics, at least in American graduate schools.

Von Neumann and Morgenstern anticipated the slow acceptance of game theoretic concepts:

Von Neumann and I were quite convinced that it would take a long time for game theory to enter the social sciences in a significant way. In some sense, this has happened faster than we anticipated, but it still is a difficult matter for economists to turn in a fundamentally different direction.⁸

The standard response from traditional economists has been that in many cases models constructed on the basis of game theory, and introducing strategic considerations, do not provide extra explanatory power to make the notorious mathematical complexity of game theory worthwhile.

The Morgenstern papers reveal that what lies at the heart of Morgenstern's work is the recognition that economics, although a science of society and humanity, has modeled its mechanics on the physical sciences. However, it needs to develop models that truly reflect economic behaviour, particularly when a decision maker is not in complete control of all the variables that affect the outcome.

This note has only touched on some of the major themes in Morgenstern's career. Another well known issue of his was the unreliability of basic economic statistics, and on this Morgenstern was adamant: "The

hallowed Gross National Product is a weak and indeed absurd concept", and "This concept I believe to be quite worthless".⁹ A further issue is the role of foundations in sponsoring economic research. Morgenstern noted that Rockefeller Foundation funding was "of absolutely fundamental importance in my whole scientific development".¹⁰ Access to these papers should generate a number of fascinating books on this quite remarkable scholar.

Notes

- * School of Economics, University of NSW, P.O. Box 1, Kensington, NSW, Australia 2033. This article is based on an examination of materials located in the Manuscript Department, William R. Perkins Library, Durham, North Carolina, USA. I am grateful to the curator, Mr Robert Byrd, for allowing me access to these papers. All references are to the Oskar Morgenstern Papers.

[A report by John Lodewijks on the Sidney Weintraub Papers at Duke University was published in the *HETSA Bulletin*, No.13, Winter 1990. - Ed.]

References

1. O. Morgenstern to J.E. Black, May 15, 1975. See also O. Morgenstern to A. Bucholz, June 17, 1974.
2. F. Knight to O. Morgenstern, November 10, 1931.
3. F. Knight to O. Morgenstern, May 1, 1936.
4. F. Knight to O. Morgenstern, November 8, 1939.
4. F. Knight to O. Morgenstern, May 4, 1933 and F. Knight to O. Morgenstern, December 19, 1932.
6. O. Morgenstern to K. Mendelssohn, March 25, 1976, Box 3. The letters noted below can also be found in Box 3.
7. Research by Bob Aumann, Michael Maschler, David Schmeidler, and Elon Kohlberg, is mentioned in particular. See M. Maschler to O. Morgenstern, January 31, 1977.

8. O. Morgenstern to L. Johansen, August 10, 1976. For a very interesting account of one aspect of the history of game theory see G. Korman and M. Klapper, "Game Theory's Wartime Connections and the Study of Industrial Conflict", *Industrial and Labor Relations Review*, 32(1), October 1978, pp.24-39.
9. O. Morgenstern, *New York Times*, "One Man's Fact is Another's 'Fact'", September 23, 1974, and O. Morgenstern to C. von Amsberg, April 17, 1976.
10. O. Morgenstern to J.H. Knowles, February 18, 1977.