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X XII: 248 pp.  
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Indexes

A HISTORY OF  
MARGINAL UTILITY THEORY

BY EMIL KAUDER

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PRINCETON, NEW JERSEY  
PRINCETON UNIVERSITY PRESS  
1965

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## INTRODUCTION

### OBJECT AND METHOD

THE problem of consumer valuation has displayed a strong persistency in the history of economic thought. Only a few economic systems omit consumer's estimation. What is the reason for this continuing interest? The theorists specializing in this field claim that the rationale of household strategy is an *eternal* element of economics. Economic actions under a communist system, a mercantilist control, capitalism, or under any other historical and geographical circumstances are conditioned by the consumer's needs.

The reasons for the choices of the household manager have been explained by observation and by theoretical analysis. Marginal utility is one of the most important discoveries in this field. Seldom have the theorists agreed on the character, function, and importance of their new device. Yet two considerations appear time and again in their descriptions. These common principles can be used for a preliminary orientation. First, the consumer deals with useful and scarce goods. Second, by the appropriation of these goods a critical point is eventually reached at the last good which the household manager can afford to use; the utility which this good creates is the marginal utility.

The clarification of this concept took about two thousand years. Ultimately, marginal utility became the basis of theoretical systems and the tool for the construction of rational consumer strategy. The discovery of this principle and the exploration of its consequences is described on the following pages.

This study had to be written before it was too late. New ideas have supplanted the marginal utility theory which was dominant for the last ninety years. The number of economists who are able and willing to use this theoretical tool decreases. By personal acquaintance and study I am in touch with the dwindling group of marginalists. Since my university days when I opposed Werner Sombart's elegant but inconclusive defense of Marxian Labor value, I have been interested in the marginal utility doctrine, especially in its Austrian formulation. Later I came in contact with leading members of the Viennese school. For quite a while I planned to write this history, but not before 1952 was I able to publish some preliminary papers. Sympathy, I hope, does not mean partisanship. This study is not a eulogy of things past, but rather it is intended to be a historical and critical investigation.

This book, written in the late twilight period of the marginalist schools, differs from older histories which were published during the period of general recognition. Some valuable contributions exist: Ricca Salerno, *La teoria del Valore* (Rome, 1892), Otto Weinberger, *Die Grenznutzenschule* (Halberstadt, 1926), Gaétan Pirou, *L'utilité marginale de C. Menger à J. B. Clark* (Paris, 1938), and François Perroux, *La Valeur* (Paris, 1943). Weinberger's book is very helpful for understanding the early history. In his analysis of recent developments he did not pay much attention to the Austrian achievements, because he rightly assumed that his German readers knew the Viennese discoveries. François Perroux has the great ability to clarify difficult problems with ingenious pedagogical devices, but he isolates each system and does not stress historical connections.

Few American studies exist: the best were written by George Stigler, "The Economics of Carl Menger," *Journal of Political Economy*, Vol. 45, 1937, and "The Develop-

ment of Utility Theory," I & II, *Journal of Political Economy*, Vol. 58, 1950. I am very much indebted to Stigler's penetrating analysis. While I was preparing this book, R. S. Howey published *The Rise of the Marginal Utility School 1870-1889* (Lawrence, 1960). Howey grossly misunderstands the Austrian School.

For my study I had access to documents which were completely unknown to my forerunners. I made use of Carl Menger's voluminous notes which are kept in the Menger Library at Hitotsubashi University, Kunitachi, Tokyo. This material changes the traditional concept of Menger and his school.

Menger and his followers play a much bigger role in this study than do the other marginalist movements because the members of the Viennese group have probed deeper into the value problem than other economists. In my presentation, since I emphasize the logic and structure of the marginal utility theory and not its application, the price theory based on marginalism has been intentionally neglected. Obviously, the relation between prices and consumer valuation is very important, but a detailed discussion of this problem would detract attention from our central subject: to present the discovery and perfection of the marginal utility theories.

This book is planned as a progress report. Joseph Spengler wrote that the historian of economic analysis has to throw into relief "the imminent change,"—the development which originates "within itself."<sup>1</sup> The lack of continuity prevented me from following to the letter Spengler's design of writing history. Before 1870 the value theorists were often so much separated from each other that they had no information about the work that had been already done. After 1870 the language barrier nearly iso-

<sup>1</sup> Joseph Spengler and William R. Allen, *Essays in Economic Thought* (Chicago, 1960), Introduction, p. 2.

lated the different groups of marginalists. Continuing progress existed mainly inside the schools, and common ties uniting the groups were sometimes weak. Even today language differences hamper the spread of information and create misunderstandings. In spite of these obstacles I have tried to follow Spengler's directions. To apply his advice I needed an additional approach. The contents of the different theories, and the continuity and the discontinuity of thought, will be better understood by describing the roots of these ideas.

In general, the historians of economic thought have considered class interests and the intellectual climate (*Zeitgeist*) as the two essential outside forces which molded economic theories. Of these two roots only the second has an essential bearing on the marginal utility theory.<sup>2</sup> The intellectual climate is the result of humanities, science, and religion in one age and in one society. More than any other element of economic theory, marginal utility stands in a complicated relationship to these cultural factors.<sup>3</sup> The architects of marginal utility took their building stones from philosophy, psychology, religion, mathematics, and morals. Changes of these intellectual and cultural forces were often accompanied by reforms of the marginal utility doctrine. To understand its development it is therefore desirable to be acquainted with the history of ideas in adjacent fields.<sup>4</sup> However, a necessary and inevitable connection

<sup>2</sup> Below, p. 59ff. I intend to show that the ideological bias of the ruling class had no bearing on the history of the marginal utility theory.

<sup>3</sup> These lines are somewhat influenced by Dilthey and Troeltsch. Wilhelm Dilthey, *Weltanschauungslehre*, Gesammelte Schriften, VIII (Leipzig, 1931). Ernst Troeltsch, *Der Historismus und seine Ueberwindung* (Berlin, 1924).

<sup>4</sup> Werner Sombart, *Die Drei Nationalökonomien* (Leipzig, 1930), p. 212. In America, Professor Boring, while investigating the history of natural sciences came to similar results. Edwin G. Boring, "Science and the Meaning of its History," *The Key Reporter*, XXIV, No. 4 (July, 1959), pp. 2, 3.

between intellectual climate and history does not exist. Too often the causal relation is interrupted by creative freedom, by the unexpected work of a great thinker.

The production of new thoughts and the perfection or rejection of old formulations are often determined as much by the refinement of economic thinking and observation and by the unexpected appearance of a gifted economist, as by the influence of outside forces. I use both approaches—the description of immanent changes, and the presentation of the impact of general ideas—to describe the development, the ninety years of domination, and the final decline of this theory. Whether or not the recent neglect of marginal utility theory is in the interest of economic analysis can be discovered only after the evidence on the following pages has been studied.

#### HISTORICAL LANDMARKS

*The Development of the Utility and Marginal Utility Theory*      *History of Ideas and Value Theory*

#### I. VALUE-IN-USE

Aristotle (384-322 B.C.).      Public and Private Welfare.  
*Politics, Topics, Nicomachean Ethics.*

##### 1. The Schoolmen

Thomas Aquinas (1225-1274)      Prevalence of Aristotelism and scholastic philosophy.

Buridanus (1295-1366)

##### 2. The Italian School

Gian Francesco Lottini (fl. 1548), *Avvedimenti Civili.*      Late Aristotelism.

Ferdinand Galiani (1728-1787), *Della Moneta*, 1750 or 1751. Enlightenment.

## II. MARGINAL UTILITY

Daniel Bernoulli (1700-1782), "Specimen Theoriae Novae de mensura sortis." St. Petersburg, 1738. Application of calculus to sciences.

Jeremy Bentham (1748-1832). Hedonism.

William F. Lloyd (1795-1852). *A Lecture on the Nature of Value*, Oxford, 1834.

Arsène Jules Dupuit (1804-1866), *De l'utilité et de sa mesure*, 1853.

Hermann Heinrich Gossen (1810-1858), *Entwicklung der Gesetze des menschlichen Verkehrs*, Braunschweig, 1854. Radicalism in the Rhineland influenced by French enlightenment (Helvetius) and Saint-Simonism.

## III. THE TRIUMPH OF MARGINAL UTILITY 1870.

Carl Menger (1840-1921), *Grundsätze der Volkswirtschaftslehre*, Vienna, 1871. Austrian Aristotelism. The Austrian School of psychologists (Franz Brentano, Christian Ehrenfels, Oskar Kraus).

William Stanley Jevons (1835-1882), *The Theory of Political Economy*, London, 1871.

Léon Walras (1834-1910), *Éléments d'économie politique pure; ...* Lausanne, 1874. Saint-Simonism. Étienne Vacherot, 1809-1897, French laicism:

### 1. The Austrian School from 1880-1947.

1880-1927. Systematization and consolidation.

Eugene von Boehm-Bawerk (1851-1914), *Kapital und Kapitalzins*, Innsbruck, 1884, 1889-.

Friedrich Paulsen (1846-1908): Aristotelian interpretation of social action. Max Weber (1864-1920): methodical investigation of rationalism in human action.

Friedrich von Wieser (1851-1926), *Der natürliche Werth*, Vienna, 1889.

### 2. 1920-1947

Neo-Marginalism. Hans Mayer, Ludwig von Mises, Paul Rosenstein-Rodan, Leo Schönfeld-Illy.

Alfred Schütz, *Der sinnhafte Aufbau der sozialen Welt*, Vienna, 1932; phenomenological interpretation of social sciences. The Viennese circle ("Der Wiener Kreis"), Moritz Schlick (1882-1936), Richard von Mises, Logical Positivism.

3. 1943

Theory of Games

Introduction of the probability mathematics into the value theory.

John von Neumann (1903-1957) and Oskar Morgenstern (1902-), *Theory of Games and Economic Behavior*, Princeton, 1944.

4. The development of the indifference curves.

Francis Y. Edgeworth, *Mathematical Physics*, London, 1881.

Vilfredo Pareto (1848-1923), *Manuale d'economia politica*, Milan, 1906.

Positivism and empiricism.

John R. Hicks (1904-), *Value and Capital*, Oxford, 1938.

Behaviorism.

PART I

THE GENESIS OF MARGINAL  
UTILITY

pages ago makes it quite unlikely that the history of economics could have gone a different way. Other value theorists understood the historical conditions. We are indebted to Fritz Machlup for a lucid explanation of the multiplier and very valuable interpretations of foreign trade in the Keynesian manner. Wilhelm Röpke, a strong defender of the marginal utility principle, wrote a well-balanced and penetrating interpretation of Keynes' work.<sup>17</sup> Those like Machlup who seek a bridge between Menger and Keynes and those who fight shy of any compromise have to face a number of problems if they want to keep the value theory alive.

<sup>17</sup> Wilhelm Röpke, *Economics of the Free Society* (Chicago, 1963), pp. 221ff.

## CHAPTER XXII

### THE CHANCE OF SURVIVAL

#### THE ECONOMIC SYSTEM AND MARGINAL UTILITY

Will the future theorist give up the study of value theory? It is possible, but it is not desirable. The neglect of marginal utility would deprive the theorist of an essential tool needed for economic analysis. Although some ill-founded claims of the value theorists have been discounted in the last chapter, essential achievements remain. These are a thorough analysis of consumer behavior and some valuable insights into the demand-structure. A substitute for utility theory does not exist.<sup>1</sup> The new attempts to interpret consumer habits—for instance, Duesenberry's statistical investigations and Galbraith's sociological descriptions—are very penetrating. But they are possible only on the basis of the marginal utility theory. The actual distribution of income between consumption and saving presupposes the consumer's preference decisions; the priority of production in the affluent society is explained with the help of the law of diminishing utility. The surviving marginalists, the game theorists, the French economic-sociological school, and the praxeologists should have no great difficulty in integrating these facts. This is a small part of the future work, for the main task is much more difficult. Future value theorists will have to write the final paragraphs to all the topical chapters of this study: they will have to attempt to solve the many problems which have been

<sup>1</sup> Frank H. Knight has written a penetrating study of this problem in his article "Value and Price," *Encyclopedia of the Social Sciences* (New York, 1938), Vol. 8, pp. 218-24.

discussed time and again since 1870. Progress surpassing these incomplete performances has been hindered in four ways.

#### THE FOUR CONTROVERSIAL POINTS

*First:* from the beginning the great system builders of the Austrian school had a definite starting point, marginal utility. All concepts of theoretical analysis ought to be reduced to value problems, for value was the sesame key. The working out of this thought was confronted with hindrances. The value theorists spread their efforts too thin. It has been shown that the problems of price, imputation, and distribution can be solved without or with only small help from valuation. The inconclusive history of imputation shows the waste of effort caused by neglecting the inherent limitation of the preference theory. The core of the marginal utility theory ought to be consumption. Here is the field reserved for our theory.

*Second:* the simple utility maximum of the Robinson Crusoe economy is the favorite model of the Austrian theory, but its application is limited. It is valid only in a completely isolated economy. In the market economy, von Neumann and Morgenstern write, each participant attempts to maximize a function (his maximum) "of which he does not control all variables."<sup>2</sup> The consumer may not be able to equalize different marginal utilities. Von Neumann and Morgenstern have indicated the direction in which the problem may be solved.

*Third:* the Babylonian confusion has to be cleared away. Words are used as labels for many different phenomena. The meanings of the words utility, costs are many. Causality and teleology, hedonism and moral values, analysis and political programs have been mixed up. Unfortunately the situation of the value studies provokes this intellectual turmoil. Utility investigation reaches

<sup>2</sup> Von Neumann and Morgenstern, *Theory of Games*, p. 11.

into many disciplines. A value theorist has to be a mathematician, a psychologist, a philosopher, a theologian, and sometimes even an economist. No author can be sufficiently trained in all these fields. The value theorist has to accept the counsel provided by scholars from other branches of knowledge to clear away the fog of confusion.

*Fourth:* the verdict "I act thus and therefore everybody else acts this way" (So handle ich und das ist jedermann) is very bold. But boldness is not identical with correctness. Theoretical principles are gained from *introspection*, but the verification is dependent on *observations*. During the whole history of marginal utility, the theorists have not always checked their findings against observed cases and statistical evidence. In natural science every discovery is tested. Why have we done so little?

#### THE MARGINAL GAIN

It was my task to describe the history and not the future of a leading theory in economics. How much the reader has learned from this narration I do not know. I at least derived some pleasure from writing this study. I was thrilled by the discovery of new insights and the digging out of old documents. Furthermore, in a time like this it is sometimes agreeable to describe a philosophy of everyday life which does not define man as an exploited slave stumbling forward toward the holocaust of social revolution, which does not consider him a puppet dancing at the command of multiplier and accelerator, but which sees in man a person who selects his lunch, his dinner, his wardrobe, and his house. Certainly there was enough trouble struggling with a language which I had not spoken before I was thirty-seven years of age, with mathematics, and, still worse, with the intricacies of the rules of quotation. Yet, generally there was more enjoyment than annoyance, or, in the language of Friedrich von Wieser, marginal utility was greater than the opportunity costs.

## SOURCES AND LITERATURE

FOR the history of a scientific concept the study of the books written about this subject is not enough. To gain a better insight into time and circumstances, to make sense of obscure writing, to gauge the intellectual influence, I had to interview surviving witnesses (Richard Schüller, Karl Menger, Jr.). I searched for letters, publications which had seldom been read, and for handwritten manuscripts and notes. The printed letters and journals are easily accessible and are catalogued here:

William St. Jevons. *Letters and Journals*. London, 1886.

Étienne Antonelli (ed.). "Léon Walras et Carl Menger à travers leur correspondance," *Economie appliquée*, Vol. 6, Nos. 2-3 (Paris, 1953), pp. 269-87. This document reveals the methodical differences between Léon Walras and Carl Menger. Unfortunately Menger's German letters are not correctly translated, as Professor Morton Jaffe told me.

Vilfredo Pareto. *Lettere a Maffeo Panaleoni, 1890-1923*, Vol. 3, ed. Gabriele de Rosa. (Rome, 1960); *Carteggi Paretiani, 1892-1923*, Vol. 1, ed. Gabriele de Rosa. (Rome, 1962.) Pareto's letters were most generously presented to me by the Banca Nazionale del Lavoro. Unfortunately I received the four volumes too late for this publication.

The most exciting part of my investigation was the search for unpublished material. Visiting Menger's library at the Hitotsubashi University at Kunitachi, Tokyo, Japan, I had hunter's luck. The Menger Library is more than 100 years old. Carl Menger's father, a small-town lawyer in former Austrian Poland, collected the first 4,000 volumes. Carl Menger, who was an avid reader and a

book collector, enlarged the collection to 25,000 volumes. After his death, the works dealing with the social sciences were acquired by the Japanese government and are now kept at the Hitotsubashi University, Kunitachi, Tokyo. The books by themselves are of great literary and scientific value; they are especially important for the historian of economic thought, because they contain essential parts of Menger's scientific legacy.

Menger's collection reflects his working habits, his thinking, and his personality. He wrote corrections, short notes, and fragmentary essays on the flyleaves, margins, and other empty spots of the books he owned. More often than not, these notes have only an indirect connection with the printed text. They are monologues by which he clarified and developed his own thoughts. Most important are his notes in Rau's *Grundsätze der Volkswirtschaftslehre* and in his copy of his own *Principles* of 1871. Menger's remarks in Rau's handbook (abbreviated: Rm.) contain an early version of his theories of value, price, and money. Menger's hand copy of his theory of 1871 (abbreviated: fragment) includes an unfinished correction of this work which was planned as an introduction for a four-volume handbook. He wrote his corrections on inserted sheets as well as on the printed pages. I have transcribed the two manuscripts. The following list gives a selection of those books in which I found Menger's comments. It also indicates that the search is not finished; ample material still has to be investigated.

## Selection of Menger's annotated books

## Books investigated.

Joseph Kudler. *Die Grundlehren der Volkswirtschaft*. Wien, 1846, Vol. 1. Apparently used by Menger for his state-examination, 1860-1863. (Menger Library Comp. 168.)

- Karl Friedrich Rau. *Grundsätze der Volkswirtschaftslehre*. 7th ed., Leipzig, 1863. Menger remarked twice (title page and page 1) that he started his study of Rau in September, October of 1867. (Mlb. Comp. 266.) (title abbreviated Rm. Published as a mimeographed book: *Carl Mengers Erster Entwurf zu seinem Hauptwerk "Grundsätze" geschrieben Als Anmerkungen zu den "Grundsätzen Der Volkswirtschaftslehre" Von Karl Heinrich Rau*. Tokio, Hitotsubashi Universität. 1963.
- Carl Menger. *Grundsätze der Volkswirtschaftslehre*. Wien, 1871. The author's copy. Menger changed the title to *Allgemeine theoretische Volkswirtschaftslehre*. Attached newspaper clippings indicate that Menger started to work about 1873. He may have stopped writing on this manuscript after 1892, because a note on the cover asks the honest finder to deliver the book to Menger for the reward of 100 Kronen. The crown currency was introduced in Austria in 1892. (Abbreviated title: Fragment.) Published as a mimeographed book: *Carl Mengers Zusätze zu "Grundsätze der Volkswirtschaftslehre."* Tokyo: Bibliothek der Hitotsubashi Universität, 1961.
- John Stuart Mill. *Grundsätze der politischen Oekonomie*. German translation by Adolph Soetbeer, Hamburg, 1864. Read by Menger after he had published his *Principles*. Important notes about price and the law of diminishing return. (Mlb. Eng. 983.)
- Friedrich Ueberweg. *Grundriss der Geschichte der Philosophie der Neuzeit*. Berlin, 1872. Read before he published his methods of social sciences. See Kauder, "Menger and his Library," *The Economic Review*, Hitotsubashi University, Vol. 10, No. 1 (January, 1959).
- Hermann Heinrich Gossen. *Entwicklung der Gesetze des menschlichen Verkehrs*. Braunschweig, 1854. Rare first

- edition. (Comp. 99.) Menger read this book in the summer of 1886. See remark in ink on title page which is very important for Menger's attitude toward Gossen.
- Rudolf Auspitz und Richard Lieben. *Zur Theorie des Preises*. Leipzig, 1887. (Mlb. Mon 91.) This is the only mathematical treatise in the whole library which Menger had thoroughly studied.
- Menger's remarks to Knapp. *Staatliche Theorie des Geldes*. According to a letter by Oskar Morgenstern, Ludwig von Mises deposited this book at the University library, Geneva, Switzerland. I own a microfilm.
- Books, pamphlets and other material existing but not available.
- Notes on the theory of value 1867, mentioned in F. A. von Hayek, "Carl Menger," *The Collected Works of Carl Menger*, Vol. 1, The London School of Economics and Political Science, London, 1934, p. xi, footnote. I could not find out whether or not these notes are identical with the Rm.
- Preface intended for a second edition of the *Principles*, partly published in Carl Menger, *Grundsätze der Volkswirtschaftslehre*, 2nd posthumous ed.; Wien, 1923. Preface by Richard Schüller, ed. Karl Menger (son). (Abbr. Sch.M.), pp. viiff.
- Carl Menger's paper "Kritik von Wundts Logik." (Sch.M.), p. xiii. Owned by Karl Menger?
- Correspondence Carl Menger and Boehm-Bawerk. Partly published Sch.M. XII and *Economisk Tidskrift*. Upsala, 1921, pp. 87ff.
- Original manuscripts of the Sch.M. Property of Karl Menger?
- I did not find another treasure trove. The search for documents, letters, and unpublished manuscripts of Menger's successors was almost a complete failure. Only the letters of the young Friedrich von Hayek to Wesley C.

Mitchell could be located at Columbia University, Seligman room.

Before I finish this survey, I must mention a curiosum to which Professor Fritz Machlup drew my attention. For his seventieth birthday Carl Menger desired that each economist of the whole earth should be photographed and have a picture sent to him. Everyone except Gustav Schmoller and Lujo Brentano did so. Apparently, the leaders of the historical school could neither forgive nor forget. These old-fashioned pictures made by real "Hofphotographen" (photographers to the court by imperial and royal appointment) date from a time when marginal utility theory had a growing influence and when the dignity of a professor was exactly measured by the length of his beard. The whole collection is in the Economics Department of the Johns Hopkins University, Baltimore, Maryland.

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