

SIXTH EDITION

Paul Heyne

The Economic Way of Thinking

Acknowledgments

Credits for photographs: facing page 1: Elliott Erwitt/Magnum Photos; p. 14: M. Durrance/Photo Researchers; p. 46: Harvey Stein; p. 68: Bruce Davidson/Magnum Photos; p. 98: H. Cartier-Bresson/Magnum Photos; p. 128: H. Cartier-Bresson/Magnum Photos; p. 152: Kosti Ruohomaa/Black Star; p. 178: Paul Sequeira/Photo Researchers; p. 198: Burk Uzzle/Picture Group; p. 224: Bruce Davidson/Magnum Photos; p. 252: Jeff Albertson/Picture Cube; p. 294: H. Cartier-Bresson/Magnum Photos; p. 328: DisFarmer/Miller/Magnum Photos; p. 362: Elliott Erwitt/Magnum Photos; p. 396: Charles Harbutt; p. 422: Harvey Stein; p. 436: H. Cartier-Bresson/Magnum Photos; p. 460: Elliott Erwitt/Magnum Photos; p. 484: Bruce Roberts/Photo Researchers; p. 510: Gordon Baer/Black Starr; p. 534: Harvey Stein; p. 560: Inge Moratti/Magnum Photos; p. 576: H. Cartier-Bresson/Magnum Photos.

Editor: Caroline Carney

Production Supervisor: John Travis

Production Manager: Richard C. Fischer

Text and cover designed by Patricia Smythe

Cover illustration by Juliana Heyne, oil painting "Temple".

Main illustrations by Vantage Art, Inc.

Marginal illustrations by V & M Graphics.

This book was set in Trump Mediaeval type by V & M Graphics and printed and bound by Halliday Lithograph.

The cover was printed by New England Book Components.

Copyright © 1991 by Macmillan Publishing Company, a division of Macmillan, Inc.

Printed in the United States of America

All rights reserved. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or any information storage and retrieval system, without permission in writing from the Publisher.

Earlier editions copyright © 1987 by Macmillan Publishing Company, a division of Macmillan, Inc, Copyright © 1983, 1980, 1976, and 1973 by Science Research Associates.

Macmillan Publishing Company

866 Third Avenue, New York, New York 10022

Collier Macmillan Canada, Inc.

1200 Eglinton Avenue, E.

Suite 200

Don Mills, Ontario, M3C 3N1

Library of Congress Cataloging in Publication Data

Heyne, Paul T.

The economic way of thinking / Paul Heyne. — 6th ed.

p. cm.

ISBN 0-02-354181-4

1. Economics. I. Title.

HB171.5.H46 1990

330 — dc20

90-34668

CIP

Printing: 2 3 4 5 6 7 8 9 0 Year: 1 2 3 4 5 6 7 8 9 0

Preface

Introductory economics has long been an easy subject to teach. It's been a hard subject to *take*, but that's another matter. Moreover, the amount of learning that comes out of principles courses bears no reasonable relationship to the amount of teaching that goes in.

Principles of economics has been an easy course to teach because we have used it largely to regurgitate the bits of technique acquired during our own training in economics. There are so many such bits and pieces, and they are so hard for students to grasp, that principles teachers need never worry about what to do today. They can always introduce a new complication or spend the hour clarifying the complication introduced yesterday. And they don't even have to prepare the complications. A single phrase – elasticity, total-average-marginal revenue, long-run competitive equilibrium, marginal-value product, IS-LM, the multiplier – will serve as an adequate text for an entire class session.

What Are We After?

What should be the learning goal in the beginning economics course? It is clear from what has already been said that I have little use for what I take to be the usual learning goal: introducing the student to bits and pieces of technique. Why should we want a beginning student to be familiar with the concepts of average variable, average total, and marginal cost, their downward then upward shapes, the necessary intersection of marginal cost at the low point of average cost, and everything else contributing to the demonstration that in the long run, under perfectly competitive conditions, price will be equal to average total and marginal cost for all firms after quasi-rents have been capitalized? To ask the question is to answer it. We have no good reason for wanting a beginning student to know all this. Then why have we continued to teach it?

Part of the explanation lies in our commendable concern to teach *theory*. It is economic theory that gives to economics almost all its predictive or clarifying power. Without theory, we must grope our way blindly through economic problems, conflicting opinions, and opposing policy proposals.

But economic theory has proved itself unusually difficult to communicate. So those responsible for teaching undergraduate economics, struck by the apparent failure of theory-oriented principles courses, have sometimes opted instead for a problems and issues course. In such a course, students typically read and discuss statements by labor leaders, industry representatives, agricultural lobbyists, politicians, and a few domestic radicals or foreign socialists. They look at figures on income distribution, gross national product, employment, prices, and rates of economic growth. They read and discuss the arguments for guaranteed incomes and against planned obsolescence, for free enterprise and against unregulated competition, for nuclear power and against uncontrolled economic growth. And when it is all over, what have they learned? They have learned that opinions abound, with data to support every one of them, that "it's all relative," that every American is entitled to an opinion, and that economics is not a science and is probably a waste of time.

The insistence on teaching theory is correct insofar as it is a denial of the significance of facts without theories. Theory is essential! But what theory? Economic theory, of course. But that begs the real question. What *kind* of economic theory? And in what *context*? Before we can answer, we must know what we're after.

•

Concepts and Applications

I want beginning students to master a set of concepts that will help them think more coherently and consistently about the wide range of social problems that economic theory illuminates. The principles of economics make sense out of buzzing confusion. They clarify, systematize, and correct the daily assertions of newspapers, political figures, ax grinders, and barroom pontiffs. And the applicability of the economist's thought tools is practically unlimited. Students should come to appreciate all of this in a beginning course.

But they won't unless we, the teachers and textbook writers, persuade them. And we can persuade them only by showing them. *The principles of economics must therefore be taught as tools of analysis.* The teaching of a concept must take place in the context of application. Better, the potential application should be taught first, then the tool. There is so much evidence from pedagogy to support this approach that it's hard at first to understand how any other approach could ever have conquered the field.

"Here is a problem. You recognize it as a problem. What can we say about it?" That's step one.

"Here is how economists think about the problem. They employ the concept of such and such." Step two entails the exposition of some concept of economic theory.

After the applicability of the concept to the original problem has been demonstrated and some of the implications examined, the concept should be applied to additional problems. That's step three.

It isn't as easy as one-two-three, of course, and I don't mean to imply that it is. The teaching of economic principles requires imagination, insight, a knowledge of current events, and a sense of perspective, as well as familiarity with the formal techniques of economic analysis. Those are all scarce goods. And it presupposes a conviction on the part of the teacher that economic theory really is useful for something more than answering artificial questions and passing equally artificial examinations.

The Virtue of Restraint

Perhaps no one would disagree in principle with any of the foregoing statements. If so, our practice has been far out of step with our precept. One reason is undoubtedly the obsession with formal technique that characterizes so much teaching of economic theory at all levels. The disciple will very rarely rise above the master. And if the masters in our profession are more concerned with form than content, the effects will be felt at the principles level. We need not debate here the question of how much of the material taught in intermediate and advanced theory texts really belongs there, or what balance should be struck in graduate theory courses between the logic-mathematics and the economics of theory. For the question of what should go into a beginning course can be answered without resolving the other questions. And that answer is: *very little*.

For very little indeed of what might go into a complete and current compendium of economic theory is actually useful in enabling us to make sense of the real world and to evaluate policy proposals. Almost all the genuinely important things that economics has to teach are elementary concepts of relationship that people could almost figure out for themselves if they were willing to think carefully.¹

The challenge is getting people to *appreciate* these few, simple concepts. To do that, we must practice the virtue of

¹A compelling statement of this view was provided by Ely Devons in the first two of his *Essays in Economics* (London: George Allen and Unwin, 1961), pp. 13–46.

restraint. We must attempt less and thereby accomplish more. An introductory course should distinguish itself as much by what it excludes as by what it incorporates. Unless it is our aim to impress students with the esoteric quality of economists' knowledge, we should teach no theory in the introductory course that cannot be put to work immediately. Otherwise we drown beginning students; they are made to thrash about so desperately that they don't learn to swim a single stroke. Our aim should be to get them swimming and to instill in them the confidence that through practice they can learn to swim better.

Every introductory economics teacher ought to read a short essay by Noel McInnis, entitled "Teaching More with Less." Here are three excerpts:

I dare say that all of us who teach have been guilty of telling our students much more than they cared – or needed – to know. In fact, I would theorize that we have probably been telling them more about our subjects than *we* care to know. That is one reason why we feel compelled to rely on notes to deliver lectures.

Our present methods of communicating often obscure meaning rather than reveal it. . . . We often see the tragic results of this in our "best" students, who can repeat what we have told them but cannot apply it in a new context so that it means something. Their learning may have been comprehensive, but it has not been comprehending.

Survey courses in almost all disciplines are becoming increasingly impractical because of their compulsive attempt to cover all relevant information. They could be made highly practical once again – or perhaps for the first time – if they were organized to convey the five or six most fundamental organizing and conceptual principles of the discipline, utilizing only the most immediately relevant information to bring the principles to life.²

I agree wholeheartedly with McInnis. My implementation of this vision will undoubtedly be found far from perfect. But the teacher who wonders why this or that topic is not treated in the book, or why there is no complete exposition of some familiar portion of theory, should remember that knowledge is imparted by what is left out as well as by what is included. Judgments on relevance and relative importance will, of course, vary. But the argument of McInnis should be faced every time we are tempted to add another jot or tittle

2. *Change: The Magazine of Higher Education* (January–February 1971), pp. 49, 50, 51.

to the corpus of what we teach in beginning principles courses.

One Term or Two?

Every economics teacher, whether of graduates or undergraduates, knows how disconcertingly little most students bring with them from principles courses into subsequent studies. Sometimes they don't seem to remember anything except that they've "heard of it." Is the solution more credit hours of introduction? Should we detain them longer so that we can drill them more thoroughly in the fundamentals of our discipline? In my judgment the solution lies rather in the direction of fewer hours spent in the introductory course.

What is true and relevant tends to get lost when a beginning course is extended over two quarters or semesters. The student gets many fuzzy ideas of what the subject is *about*, but little grasp of what it *is*.

Moreover, there are too many pedagogical and administrative problems associated with the truncated unity of a two-term single course. Teachers change, textbooks change, micro comes before macro and then macro is put before micro, students drop out after the first term and return two years later for the second term. Why have we nonetheless persisted? It sometimes seems as if we're afraid to teach it all in one term for fear that we'll cut our demand in half. If we can persuade the curriculum makers, especially in the business schools, that two terms is the absolute minimum, we can better maintain the demand for our services.

But a single *worthwhile* term can leave the beginning student eager for more. And economic education doesn't have to end with the introductory course. It won't, at least for many of the students whom we want to continue, if we do a better job of getting them started. The demand for economic principles may even prove to be elastic: if we cut the hourly cost in half, the number of customers may more than double.

Some economists feel that, although a one-term course may be adequate for the general student, two terms are the essential minimum for economics or business majors. But isn't a brief and lively introduction to economics the best start for everyone, for those who plan never to take another course and for those who intend to go on to graduate school in economics? After all, a one-term principles course does not preclude subsequent courses in theory, courses that could be required or strongly recommended for majors. And

more students might enroll in the theory courses if the introductory course managed to persuade them that economic theory is a worthwhile and occasionally even an exciting study.

Changes in the Sixth Edition

Important changes have been made for this edition in Chapters 7, 11, and 13. The data in the chapters on macroeconomics have, of course, been brought up-to-date, or as up-to-date as is possible given all the leads and lags of both data publishing and book publishing. There are also some substantive changes in the macroeconomics chapters, including a few notable omissions, all with the aim of telling a simpler and more cogent story.

Many users have recommended inclusion of a glossary. I don't like glossaries because they present terms out of context, and context is vital in teaching the basic concepts of economic theory. So I have compromised. A list of glossary terms is presented just prior to the index. The reader can then find these terms defined on the page or pages printed in **bold type** in the index.

I have also been urged to include answers to some of the questions at the end of the book. Again I have compromised. The Instructors' Guide to the sixth edition will print *all* the answers in a separate section on perforated pages that instructors can then tear out, if they wish, and make available to students for photocopying.

Acknowledgments

My thinking continues to be challenged, clarified, and corrected by interactions with students, graduate assistants, and faculty at the University of Washington, and by conversations and correspondence with colleagues at other schools. I am grateful to them all. Special thanks go to P.J. Hill of Wheaton College; John Eggers of Towson State University; Mary L. Eysenbach of Knox College; Robert Higgs of Seattle University; Charles Lave of the University of California, Irvine; Ian Laxer of Concordia University; Potluri Rao and Stephen J. Turnovsky of the University of Washington; and Constance Spangler, Michelle Donohue and S. Lauren Heyne, all of whom contributed in significant ways to changes in this edition. Since I usually followed their advice, you may give them credit for the improvements you find. Since I

sometimes refused to heed their counsel – at least once in a blatant way – lay the blame for all that is wrong-headed at my door.

Once again I want to acknowledge the pioneering role of Armen A. Alchian and William R. Allen, whose *University Economics* first showed me how to make introductory economics a useful and exciting course. And for the forms and colors whose primacy I so easily forget in the pale and amorphous world of academia, I am grateful to my wife, Juliana.

Paul Heyne

The Theory of Economics does not furnish a body of settled conclusions immediately applicable to policy. It is a method rather than a doctrine, an apparatus of the mind, a technique of thinking which helps its possessor to draw correct conclusions.

John Maynard Keynes

Contents ---

1	The Economic Way of Thinking	1
	Questions for Discussion	12
2	Substitutes Everywhere: The Concept of Demand	15
	Questions for Discussion	36
3	Opportunity Cost and the Supply of Goods	47
	Questions for Discussion	62
4	Supply and Demand: A Process of Coordination	69
	Questions for Discussion	88
5	Marginal Costs, Sunk Costs, and Economic Decisions	99
	Questions for Discussion	118
6	Efficiency, Exchange, and Comparative Advantage	129
	Questions for Discussion	143
7	Information, Middlemen, and Speculators	153
	Questions for Discussion	169
8	Price Setting and the Question of Monopoly	179
	Questions for Discussion	190
9	Price Searching	199
	Questions for Discussion	214
10	Competition and Government Policy	225
	Questions for Discussion	241
11	Profit	253
	Questions for Discussion	281

12	The Distribution of Income	295
	Questions for Discussion	314
13	Pollution and Conflicting Rights	329
	Questions for Discussion	349
14	Markets and Government	363
	Questions for Discussion	383
15	Inflation, Recession, Unemployment: An Introduction	397
	Questions for Discussion	416
16	Production, Prices, and Aggregate Fluctuations	423
	Questions for Discussion	433
17	The Supply of Money	437
	Questions for Discussion	454
18	Demand-Side Economics: Monetarist and Keynesian Perspectives	461
	Questions for Discussion	479
19	Fiscal and Monetary Policy	485
	Questions for Discussion	505
20	Supply-Side Perspectives	511
	Questions for Discussion	529
21	National Policies and International Exchange	535
	Questions for Discussion	555
22	Inflation, Recession, and Political Economy	561
	Questions for Discussion	571
23	The Limitations of Economics	577
	Index	581

Chapter 1_____

The Economic Way of Thinking

Good mechanics can locate the problem in your car because they know how your car functions when it *isn't having any problems*. A lot of people find economic problems baffling because they do not have a clear notion of how an economic system works when it's working well. They are like mechanics whose training has been limited entirely to the study of malfunctioning engines.

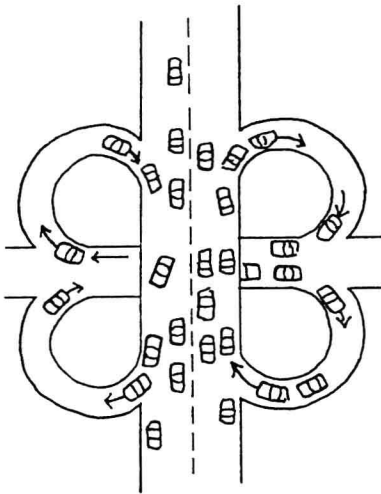
When we have long taken something for granted, it's hard even to see what it is that we've grown accustomed to. That's why we rarely notice the existence of order in society and cannot recognize the mechanisms of social coordination upon which we depend every day. A good way to begin the study of economics, therefore, might be with astonishment at the feats of social cooperation in which we daily engage. Rush-hour traffic is an excellent example.

Recognizing Order

You are supposed to gasp at that suggestion. "Rush-hour traffic as an example of social *cooperation*? Shouldn't that be used to illustrate the law of the jungle or the *breakdown* of social cooperation?" Not at all. If the association that pops into your mind when someone says "rush-hour traffic" is "traffic jam," you are neatly supporting the thesis that we notice only failures and take success so much for granted we aren't even aware of it. The dominant characteristic of rush-hour traffic is not jam but movement, which is why people venture into it day after day and almost always reach their destinations. It doesn't work perfectly, of course. (Name one thing that does.) But the remarkable fact at which we should learn to marvel is that it works at all.

Thousands of people leave their homes at about eight in the morning, slide into their automobiles, and head for work. They all choose their own routes without any consultation.

They have diverse skills, differing attitudes toward risk, and varying degrees of courtesy. As these passenger automobiles in their wide assortment of sizes and shapes enter, move along, and exit from the intersecting corridors that make up the city's traffic veins and arteries, they are joined by an even more heterogeneous mixture of trucks, buses, motorcycles, and taxicabs. The drivers all pursue their separate objectives, with an almost single-minded devotion to their own interests, not necessarily because they are selfish but simply because none of them knows anything about the objectives of the others. What each one does know about the others is confined to a few observations on the position, direction, and velocity of a changing handful of vehicles in the immediate environment. To this they add the important assumption that other drivers are about as eager to avoid an accident as they themselves are. There are general rules, of course, which everyone is expected to obey, such as stopping for red lights and staying close to the speed limit. That's about it, however. The entire arrangement as just described could be a prescription for chaos. It ought to end in heaps of mangled steel.



What ensues instead is a smoothly coordinated flow, a flow so smooth, in fact, that an aerial view from a distance can almost be a source of aesthetic pleasure. There they are — all those independently operated vehicles down below, inserting themselves into the momentary spaces between other vehicles, staying so close and yet rarely touching, cutting across one another's paths with only a second or two separating a safe passage from a jarring collision, accelerating when space opens before them and slowing down when it contracts. The movement of rush-hour traffic, or indeed of urban traffic at any time of day, really is an astounding feat of social cooperation.

The Importance of Social Cooperation

The traffic example is particularly effective in making us see how much social cooperation we totally fail to notice, because everyone is familiar with traffic but almost no one thinks of it as a cooperative endeavor. But the example is also useful in making the point that we depend on mechanisms of coordination for far more than what we usually think of as "economic" goods. If we had no working procedures to induce cooperation, we could enjoy none of the benefits of civilization. "In such a condition," as Thomas Hobbes (1588–1679) observed in an often-quoted passage of his *Leviathan*:

... there is no place for industry, because the fruit thereof is uncertain; and consequently no culture of the earth; no navigation, nor use of the commodities that may be imported by sea; no commodious building; no instruments of moving and removing such things as require much force; no knowledge of the face of the earth; no account of time; no arts; no letters; no society; and, which is worst of all, continual fear, and danger of violent death; and the life of man, solitary, poor, nasty, brutish, and short.¹

Because Hobbes believed that people were so committed to self-preservation and personal satisfaction that only force (or the threat of it) could keep them from constantly assaulting one another, his writings emphasize only the most basic form of social cooperation: abstention from violence and robbery. He seems to have supposed that if people could be induced not to attack one another's persons or property, then positive cooperation – the kind that actually produces industry, agriculture, knowledge, and art – would develop of its own accord. But will it? Why should it?

How Does It Happen?

By what means do the members of a society induce one another to take precisely those complexly interconnected actions that will eventually produce the multitude of goods, tangible and intangible, that we all enjoy? Even a society of saints must use some procedures for inducing positive cooperation of *the right kind* if the life of each saint is to be more than “solitary, poor, nasty, brutish, and short.” Saints must, after all, somehow find out exactly what ought to be done and when and where it ought to be done before they can play an effective part in helping others.

Hobbes probably failed to see the importance of this question for understanding life in the “commonwealth,” because the society he knew was far simpler, more bound by custom and tradition, and less subject to rapid and disruptive change than the societies in which we have grown up. Not until late in the eighteenth century, as a matter of fact, did any significant number of thinkers begin to wonder why it was that society “worked” – that individuals pursuing their own interests on the basis of extremely limited information nonetheless managed to produce not chaos but a remarkably ordered society.

One of the most perceptive and surely the most influen-

¹Hobbes, *Leviathan, or the Matter, Forme and Power of a Commonwealth Ecclesiastical and Civil*, 1651.

tial of these eighteenth-century thinkers was Adam Smith (1723–1790). Smith lived in an age when most educated people believed that only the diligent attentions of political rulers could prevent a society from degenerating into disorder and poverty. Smith did not agree. But in order to refute the accepted opinion of his day, he had to describe the mechanism of social coordination that he saw operating in society – a mechanism that not only functioned, in his judgment, without the constant attention of government, but worked so powerfully that it often canceled the effects of contrary governmental policies. Adam Smith published his analysis in 1776 as *An Inquiry into the Nature and Causes of the Wealth of Nations* and thereby established his claim to the title, Founder of Economics. He did not *invent* “the economic way of thinking.” But he developed it more extensively than any of his predecessors had done, and he was the first writer to use it in a comprehensive analysis of social change and social cooperation.

An Apparatus of the Mind

What exactly do we mean by *the economic way of thinking*? To begin with, it is exactly what the term suggests: an approach, rather than a set of conclusions. John Maynard Keynes phrased it aptly in the statement quoted in the front of this book:

The Theory of Economics does not furnish a body of settled conclusions immediately applicable to policy. It is a method rather than a doctrine, an apparatus of the mind, a technique of thinking which helps its possessor to draw correct conclusions.

But what is this “technique of thinking”? It is, most fundamentally, an assumption about what guides human behavior. The theories of economics, with surprisingly few exceptions, are simple extensions of the assumption that individuals take those actions they think will yield them the largest net advantage. Everyone, it is assumed, acts in accordance with that rule: miser or spendthrift, saint or sinner, consumer or seller, politician or business executive, cautious calculator or spontaneous improviser.

But don’t misunderstand. Economic theory does not assume that people are selfish, or materialistic, or shortsighted, or irresponsible, or interested exclusively in money. None of these is implied by the statement that people try to secure for themselves the largest possible net advantage. Everything depends on what, in fact, people find in their own interest.