More Thoughts on Teaching Economics

There have been a number of attempts by economists to write fiction that teaches economics, including at least one series of mysteries.[1] None, in my opinion, were very successful as fiction. That is not surprising; teaching economics and writing fiction require very different sets of skills, so one person is unlikely to have both.

A better approach might be to look for works by good writers that happened to contain important economic ideas. Two of my favorite examples are a short story and a poem: "Margin of Profit" by Poul Anderson, which I discussed in a previous chapter, and "The Peace of Dives" by Kipling. Both are worth reading on their literary merits; each is about economics, broadly defined. The point of Poul Anderson's story is that, in order to keep people from doing things you don't want them to do, you don't have to make doing them impossible, merely unprofitable. Kipling's poem is an allegory describing how economic interdependence leads to peace. My collection of such works, webbed for comment, is currently up to twenty-four, many but not all accompanied by an essay on the economic contents. I am still looking for more — suggestions welcome.

The Literary Book of Economics by Michael Watts seems, at first glance, to be the same project as mine. It differs in two important ways, its view of what economics is and of how to get students to learn it.

The most common definition of economics is probably "the science of allocating scarce resources to diverse ends." Watts offers instead Marshall's definition: "The study of mankind in the ordinary business of life." Neither is what I think of as economics. Still less is it the study of the economy, which I suspect would come closest to what most people think the word means.

To me, economics is that approach to understanding behavior that starts from the assumption that individuals have objectives and tend to take the acts that best achieve them. That is what economists mean by "rationality;" it is that assumption that is, in my view, the distinguishing characteristic of economics. What I am looking for are works that tell us something interesting about the implications of that assumption.

One correspondent suggested Orwell's *Down and Out in Paris and London*, an interesting book, although much too long for my purposes since I want to create a single volume containing lots of separate works. It offers a vivid picture of poverty in the period between the wars. What makes it interesting, economically speaking, however, is not the picture as a whole but details relevant to implications of rational behavior. For example …

Orwell observed waiters in a fancy Paris restaurant, out of sight of the diners, spitting in the dishes they were going to serve. In an idealized market context the waiter would never spit in the dish unless the value to him of doing so was more than the disvalue to the patron he was serving, which is unlikely. But throw in the inability of either the patrons or the waiter's employers to monitor the waiter's behavior and any benefit to the waiter of expressing his hostility is a sufficient incentive to make him do it. That suggests the further point that, when you cannot monitor someone's

[1] I reviewed the first of the series, *Murder at the Margin*, written by two economists writing under the name Marshall Jevons (Public Choice 1979, Vol. 34, No. 2 (1979), pp. 233-236). *Time Will Run Backwards* by Henry Hazlitt is a novel but not a mystery, a description of the reinvention of capitalism in a communist worlds. The economics are fine, the plot unconvincing.

behavior, his preferences matter: You want the job he is doing for you to be done by someone whose preferences are close enough to yours so that he will want to do what you would want him to do even if nobody is watching. That is a central theme of *The Institutional Revolution* by Douglas Allen, an interesting attempt to explain features of the pre-modern world, including systems of patronage, discussed in Chapter XXX (history).

Economics is not the study of the economy. A picture of real-world poverty, unemployment, wealth, or economic growth, however accurate and vivid, does not in itself teach you any economics. A story such as "Margin of Profit," which deals with a wholly fictional future, does.

How to Learn

I can imagine an economics professor reading through *The Literary Book of Economics* in search of things he can use in his teaching; I find it hard to imagine many people doing so merely because they enjoyed reading it. The book largely consists of excerpts, pieces of other books, many of them novels. A novel is not, with rare exceptions, a series of short stories, so an excerpt from a novel is not, again with rare exceptions, something to be read for entertainment. I conclude that most of the people reading Watts' book will be students reading it because their professor told them to. Judging by my experience of students over the years, many won't.

That fits the pattern of most modern schooling at all levels. Someone else decides what you should learn, tells you what you must do to learn it, and makes some attempt to make sure you follow his instructions. It is not a model I think highly of. A much superior model in my view, if you can pull it off, is to get someone to learn something primarily because he finds it interesting. The best way of doing that, in this context, is to provide students with things worth reading on their own, not because they are ordered to. Not even things they read because they think the labor will pay off in future benefit.

That view of education is why both children of my present marriage were unschooled. It is also why all but one of my nonfiction books were targeted at the proverbial intelligent layman. They can be, sometimes are, used as textbooks. But they were written with the assumption that if the reader did not find a chapter worth finishing he was likely not to finish it.

It is also why I am not looking for literary excerpts that can be used to demonstrate economic points unless the excerpt can stand on its own as a work of literature.

Principles of Economics x 2

Listening to my daughter's accounts of economics classes she visited during her college search, I was struck by the fact that there are two different courses taught as Principles of Economics, corresponding to two different views of what economics is. If economics is the study of the economy it makes sense for a basic course to tell you things such as how big the economy is, how it is measured, what "inflation rate" and "unemployment rate" and GNP and NNP and such mean. Many principles texts and courses are designed to do that.

The other view is that economics is an approach to understanding behavior. While it can be used to understand inflation and unemployment, it can also be used to understand marriage and divorce, the arguments for strict liability vs negligence in tort law, interactions between parents and children or between teachers and students, why tariffs are passed and why armies run away. Applications to the economy have gotten more attention and so been worked out in more detail than most of the others but are not necessarily more interesting or useful. Most students will at some point enter the long-term contract called marriage, so a way of understanding the world that helps them to understand marriage is useful. Most of them will never have to make any decision that depends on understanding how GNP is defined.

There are two arguments for designing a principles class around my view of economics. One, which I tried to demonstrate in the previous chapter[arrange in that order], is that it's both more interesting and more fun. The other is that it teaches you more useful things.

There are two arguments for the other approach. One is that it is what most students expect, because most of them think of economics as the study of the economy. The other is that learning facts and definitions, while it may take just as much time and effort as learning ideas, requires less thought, making such a course better suited to students who are taking it not because they are interested in economics but to satisfy a distribution requirement or because they think that, in their later careers, they will want to know the basic facts about the economy.

The resources that a college or university provides to an academic department depend, at least in part, on how many students take the department's courses. Teaching Principles the way I want it taught should attract more majors to the department, since it shows economics as an interesting, flexible, useful set of ideas, but it may also result in students not interested in being majors feeling cheated, feeling that the professor is teaching what he wants to teach instead of what they want to know. The first effect should increase the number of majors, each of whom will take many courses in the department. The second, as word spreads, may decrease the number of non-majors taking the principles course.

At one of the colleges we visited, I was told that the number of students taking the principles class was more than ten times the number of majors. That may explain why principles is often taught, even by professors for whom economics is interesting, in a way that isn't. If the net effect of teaching it my way is a decrease in total enrollment, as it well might be, a department can do so only at the cost of having less resources, fewer faculty tracks.

Economics applies to economists too.

When I raised this issue on my blog, one commenter suggested a third possibility — teach two courses, Principles of Economics and Principles of the Economy, both in the same slot in the freshman year and satisfying the same distribution requirements.

Market Failure and the Definition of Terms

When discussing market failure in class or in public lectures, I start by pointing out that technical terms often sound self-explanatory and aren't; the theory of relativity is not the theory that everything is relative. Not all ways in which markets can fail are market failure, and market failure is not limited to markets.

Market failure, as I define it, is a situation where individual rationality does not lead to group rationality. Non-market examples include the game of prisoner's dilemma, where each defendant makes the correct decision for himself (confess and betray his co-defendant) even though both would be better off if both refused to confess, situations where an army runs away and is slaughtered because each soldier is better off running although all are better off if they all stand, and traffic congestion at an intersection that keeps jamming because drivers, trying to cross before the light changes and failing to make it, block the intersection to cars going the other way. Each actor is making the correct decision for himself but every actor would be better off if they all made a different decision.

While I was redoing my analysis of market failure for a chapter in the third edition of my first book, it occurred to that it was not clear in what sense what I had been saying was true. I was describing how I use a technical term in my field. Can I legitimately claim that others in the field who use it differently are wrong?

There is no central authority to determine how technical terms are defined; if there were I would not be it. I made no attempt, before pontificating on the subject, to research the usage of other economists. When I tried googling the question I found that what I regard as the incorrect usage is common. I should not have been surprised; a year or so earlier I had emailed the author of a very successful textbook to try to persuade him to change the way in which he used the term. I got back a courteous reply, saying that he would consider the matter. I do not think I have yet persuaded him.

I concluded that I should be a little more careful in what I claimed. My definition is not what the term means, since meaning is defined by use and lots of people use it differently. My definition is what the term ought to mean.

Technical terms are tools for thinking and communicating. My definition of market failure makes it a better tool for those purposes than an alternative such as "a situation where the market does not allocate resources efficiently." The latter lumps together similar effects from unrelated causes — the market might produce the wrong allocation because the information to deduce the right allocation did not exist when the relevant decisions were made. It fails to identify the same logic in different contexts — rational ignorance in voting, armies running away, prisoners betraying each other.

I will continue to argue that my definition is the correct one. I will merely be more careful to explain what that means.

My market failure joke:

> Jose had robbed a bank in Texas and fled south across the Rio Grande with the Texas Rangers in hot pursuit. They caught up with him in a town in Old Mexico, only to discover that Jose spoke no English and none of the pursuers spoke any Spanish. They drafted one of the locals – the school teacher – to act as a translator.
>
> “Tell Jose that he must tell us where he has hidden the loot from the bank robbery.”
>
> “The gringos say to ask where you have hidden the loot.”
>
> “Tell the gringos I will never tell them.”
>
> “Jose says he will never tell you.”
>
> The Rangers pull out their six-guns, cock them, and point them at Jose.
>
> “Tell Jose if he does not tell us where he has hidden the loot, we will kill him.”
>
> “The gringos say if you do not tell them where you have hidden the loot they will kill you.”

> Jose begins to tremble with fear.
>
> "I buried it by the old oak tree on the other side of the bridge."
>
> "Jose says he is not afraid to die."

Put in the jargon of economics, the translator's situation was not incentive compatible. One could describe it as an example of the agency problem.

Any Spoke

Frans de Waal is the author of Chimpanzee Politics, a book that convincingly shows chimps as more nearly not very smart humans than smart animals. I came across an online quote from him on a different topic—ending with:

"And so I usually use it as an example I don't trust questionaires at all ... you need to pay attention to behavior, behavior is the only thing that tells us what the real preferences are."

So far as I could tell from his book, de Waal does not have a background in economics. He does, however, inhabit the same world we do, and so has reinvented what economists call the principle of revealed preference.

Which reminds me of a quote from another author I am fond of: "Any spoke can lead an ant to the hub."

Revealed preference is also the subject of two of my economics jokes:

> From Leo Rosten's *The Joys of Yiddish*, following his definition of frosk as a slap:
>
> "My father was so mad yesterday," said little Morris, "that five separate times he wanted to give me a *frosk*." "How do you know it was exactly five time?" "Because I counted."
>
> "What did you count?"
>
> "The number of times he hit me."
>
> "I thought you said he *wanted* to hit you."
>
> "I did. Would he have hit me if he hadn't wanted to?"

And:

> 1. Two economists walked past a Porsche showroom with an elegant sports car visible through the window:
>
> First Economist: "I really want that car."
>
> Second Economist: "Obviously not."

If he really wanted it ...

The Living Paper Project

A very long time ago I wrote three computer programs to go with my price theory textbook, intended to do things on the computer that could not be done on paper. My favorite was Curvedraw, a program to teach the student to intuit the relation between a function, its derivative and its average — in the economic context total, marginal and average cost, revenue, or value. The program let you draw a curve freehand on the computer. If you were drawing total cost the computer drew the corresponding marginal and/or average cost curves. At any point you could drop total cost, pick up marginal or average, and the program would draw the other two. You could click on any part of the total cost curve and have the program draw a tangent with horizontal length one, hence vertical length equal to the slope. The slope of total cost is marginal cost, so that gave you a visual picture of why the marginal cost curve was what it was.

The idea was that by actually controlling the curves and seeing how what you did with one affected the others you could get an intuition for the relations among them. The programs were written for my textbook but relevant to any text on price theory.[2] My plan was to produce more such programs and offer to customize them to other textbooks. I called the project "Living Paper."

I also had an idea for a computer game. Human associations can be built in either of two ways, force or mutual advantage. There are lots of games in which the player is building an empire by force, conquering neighboring territories. In Hansa he was building a trade league; any city that does not find it is better off in than out can leave.

The game was intended to teach two different lessons. One was the general idea of building a structure by mutual advantage rather than force. The other was the principle of comparative advantage, or at least some of its implications. I wanted players to notice that, in deciding what cities to invite in, both cities that were good at producing things they were bad at and cities that were bad at producing things they were good at were desirable trading partners, something most people who comment on trade have not yet realized.

A friend programmed an early version but both Living Paper and Hansa eventually died, since neither of us was willing to put in enough time and effort to complete them and bring them to market. I put up a webbed description of the project, however, and hope that at some point someone will revive it as open source. The beginning of one attempt to do so is at https://github.com/rpmcruz/price-theory but the programmer never seems to have taken it further. Any programmers who read this and want to revive either half of the project are welcome to do so.

Just let me know.

[2] The subject is usually, misleadingly, labeled "microeconomics." Since it is what you would use to understand the world wheat market, "micro" is a poor label.

Economics Jokes

I have a small collection of economics jokes, seven so far, not jokes about economics but jokes that teach economics. Several are included in this or other chapters; here are the rest:

> 1. The Japanese have just announced a new combat aircraft, the Z11, jointly produced by Honda and Mitsubishi. It isn't very good; its combat ceiling is 95% of the F111's, top speed 90%, bomb load 85%.
>
> And it retails for $12.95.[3]
>
> 2. An economics professor is in a car driven by one of his students; she asks him to put on his seat belt.
>
> "Why do you want me to put on my seat belt?"
>
> "To make it less likely that you will be injured in an accident."
>
> "Then why don't you take yours off?"
>
> (From Allen Sanderson, who teaches introductory economics at the University of Chicago the way I think it should be taught.) The long version of this one is a classic article by Sam Peltzman.[4]

[3] I wrote this one for a newsletter for a doomed congressional campaign, back when the F111 was in the news. A shorter version of the same joke is in *A Middle Eastern Cookbook by* Claudia Roden:
What is sweeter than honey?
Free vinegar.

[4] Peltzman pointed out that one result of making cars safer is to increase the number of accidents; drivers will be less careful, more willing to drive fast or when tired, if they know the car is safer. He analyzed the result of a set of required safety requirements and concluded that the increase in accidents was about as large as the reduction in deaths per accident, leaving total deaths about the same. The implication was not that safety produced no benefit but that drivers, on average, took the benefit not as a lower chance of dying but an opportunity to get where they were going a little sooner.