

## Is There Anything Worth Keeping in Standard Microeconomics?

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The French students' movement against autism in economics started with a revolt against the disproportionate importance of microeconomics in economic teaching. The students complained that nobody had really proved to them that microeconomics was of any use; what is the interest of going through "micro1", "micro2", "micro3", etc., using lots of mathematics to speak of fictitious households, fictitious enterprises and fictitious markets?

Actually, when one thinks about it, it turns out that microeconomics is simply "neoclassical theory". Realizing this, I agree with the French students when they say that:

- 1) In a course on economic theories, neoclassical theory should be taught alongside other economic theories (classical political economy, marxist theory, keynesian theory, etc.) showing that it is just one among several other approaches;
- 2) The principal elements and assumptions of neoclassical theory (consumer and producer choice, general equilibrium existence theorems, and so on) should be taught with very little mathematics (or with none at all). The main reason being that it is essential for students to understand the economic meaning of assumptions made in mathematical language. As they study economics, and not mathematics, students must decide if these assumptions are relevant, or meaningful. But, for that, assumptions must be expressed in clear English and not in abstruse formulas. Only if assumptions, and models, are relevant, can it be of any interest to try to see what "results" or "theorems" can be deduced from them.

I am convinced that assumptions of standard microeconomics are *not at all* relevant. And I think that it is nonsense to say – as some people do (using the "as if" argument) – that relevant results can be deduced from assumptions that obviously contradict almost everything that we observe around us.

The main reason why the teaching of microeconomics (or of "micro foundations" of macroeconomics) has been called "autistic" is because it is increasingly impossible to discuss real-world economic questions with microeconomists - and with almost all neoclassical theorists. They are trapped in their system, and don't in fact care about the outside world any more. If you consult any microeconomic textbook, it is full of maths (e.g. Kreps or Mas-Colell, Whinston and Green) or of "tales" (e.g. Varian or Schotter), without real

data (occasionally you find “examples”, or “applications”, with numerical examples - but they are purely fictitious, invented by the authors).

At first, French students got quite a lot of support from teachers and professors: hundreds of teachers signed petitions backing their movement – specially pleading for “pluralism” in teaching the different ways of approaching economics. But when the students proposed a precise program of studies, without “micro 1”, “micro 2”, “micro 3” ... , without macroeconomics “with microfoundations” or with a “representative agent” –, almost all teachers refused, considering that it was “too much” because “students must learn all these things, even with some mathematical details”. When you ask them “why?”, the answer usually goes something like this: “Well, even if we, personally, never use the kind of ‘theory’ or ‘tools’ taught in microeconomics courses (since we are regulationist, evolutionist, institutionalist, conventionalist, etc.) -, surely there are people who do ‘use’ and ‘apply’ them, even if it is in an ‘unrealistic’, or ‘excessive’ way”.

But when you ask those scholars who do “use these tools”, especially those who do a lot of econometrics with “representative agent” models, they answer (if you insist quite a bit): “OK, I agree with you that it is nonsense to represent the whole economy by the (intertemporal) choice of one agent - consumer and producer - or by a unique household that owns a unique firm; but if you don’t do that, you don’t do anything!”.

There are also, some microeconomists who try to prove, by experiments or by some kind of econometrics, that people act rationally. But, to do that you don’t need to know envelope theorems, compensated (hicksian) demand or Slutsky matrix! Indeed, “experimental economics” has a very tenuous relation with “theory”: it tests very elementary ideas (about rational choice or about markets) in very simple situations – even if, in general, people don’t act as theory predicts, but that is another question.

### **Microeconomics: “unrealistic ” or “irrelevant” ?**

Most of the time microeconomics is criticized because of it’s “lack of realism”. But “lack of realism” doesn’t necessarily mean *irrelevance* ; the expression is usually understood as meaning that the theory in question is “more or less distant from reality”, or as giving a more or less acceptable proxy of reality (people differing about the quality of the approximation). The idea is implicitly this: “if we work hard, relaxing some assumptions and using more powerful mathematical theorems, microeconomics will progressively became more and more

realistic. There are then – at least – some interesting concepts and results in microeconomics, that a healthy, post-autistic, economic theory should incorporate”.

That’s what Geoff Harcourt implicitly says in the *post-autistic economics review*, no.11, when he writes:

Against this macroeconomic background, modern microeconomics has a bias towards examining the behaviour of competitive markets (as set out most fully and rigorously in the Arrow-Debreu model of general equilibrium), not as reference points but as approximations to what is actually going on. Of course, departures from them are taught, increasingly by the clever application of game theory. Moreover, the deficiencies of real markets of all sorts are examined in the light of the implications, for example, of the findings of the asymmetric information theorists (three of whom - George Akerlof, Michael Spence, and Joe Stiglitz - have just (10/10/01) been awarded this year's Nobel Prize. From Amartya Sen on, the Nobel Prize electors seem to be back on track).

What is Harcourt saying? He is telling us that the Arrow-Debreu model has something to do with “the behaviour of competitive markets”; he is saying that game theory can be cleverly “applied”; he says that there are “findings” made by Akerlof, Spence and Stiglitz. If all this is true, then students have to learn general equilibrium theory (as giving “approximations to what is actually going on”), game theory, asymmetric information theory, and so on. That means that they need micro 1, micro 2, micro 3... courses (consumer and producer choice, perfect and imperfect competition, game theory, “market failures”, etc.).

I don’t agree at all with Geoff Harcourt because:

1. The Arrow-Debreu model has nothing to do with competition and markets: it is a model of a “highly centralized” economy, with a benevolent auctioneer doing a lot of things, and with stupid price-taker agents;
2. Game theory cannot be “applied”: it only tells little “stories” about the possible consequences of rational individuals’ choices made once and for all and simultaneously by all of them.
3. Akerlof, Spence and Stiglitz have no new “findings”, they just present, in a mathematical form, some very old ideas - long known by insurance companies and by those who organize auctions and second hand markets.
4. Amartya Sen, as an economist, is a standard microeconomist (that is what he was awarded the Nobel Prize for): only the vocabulary is different (“capabilities”, “functionings”, etc.).

But, perhaps, all “post autistic” economists won’t agree with me.

It would be good then that they give their opinion and, more generally, that we try to answer, in detail, the question: *Is there anything worth keeping in microeconomics - and in neoclassical theory? If there is, what?*

#### SUGGESTED

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### Bernard Guerrien : **Once Again on Microeconomics**

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I am happy to see that my paper on microeconomics<sup>1</sup> has provoked so many reactions. That was one of its main purposes. I can not answer everyone - it would take too long.

It is clear that several contributors to this discussion clearly disagree with me: Deirdre McCloskey<sup>2</sup>, Bruce Caldwell<sup>3</sup> and Julie Nelson<sup>4</sup>, for example. As for Jacques Sapir<sup>5</sup>, I confess that I did not understand most of what he wrote – perhaps because I never read Spinoza. All of the participants I just mentioned believe that there is something worth keeping in microeconomics, something they more or less identify with “economic reasoning”.

#### **Two obvious remarks before answering on the substance of the matter**

First of all, *I am not against “theory” or “abstraction”* as Jacques Sapir suggests (“... part of Guerrien’s argument reveals an unhelpful bias against abstraction itself”). On the contrary, I am in favour of teaching a lot more theory. When French students who are revolting against their *curriculum* say “no more micro 1, micro 2, micro 3 . . .”, they mean that they want to be taught more theories, in the plural (including neoclassical theory), more history of economic thought, more moral philosophy (even Spinoza ...), more sociology, etc..

You can explain neoclassical “abstract” theory in a very simple way, because it consists of a set of “stories” or “parables”, and with a lot of mathematics, but if you think that these stories

are not relevant, then insisting on proofs of existence, on comparative static results and other refinements, will not make them relevant; all this has no interest (except, perhaps, for mathematicians).

Second remark: I am not against "economic reasoning". When I say that neoclassical theory is not "relevant", I am not at all pointing to the obvious fact that "economic men" do not resemble "actual men" but mainly to the fact that "the relations" these economic men entertain among themselves (in neoclassical theory) do not resemble the relations that exist in any known economy, past or present.

I am not against reasoning about abstract men (whose self-interest is grossly exaggerated, becoming almost their only motive) as long as the relations they enter into (firm-wage labourer, landowner-tenant, banker-industrialist-merchant, etc.) resemble relations that exist in the real world. I may not entirely agree with him, but I find John Stuart Mill's economic reasoning "relevant", though, as he says himself, it is based on "an *arbitrary definition of man*, as a being who invariably does that by which he may obtain the greatest amount of necessaries, conveniences, and luxuries, with the smallest quantity of labour and physical self-denial with which they can be obtained in the existing state of knowledge" (*System of Logic*, p. 326, his italics). Probably, neoclassical economists agree with this, too. Then, the difference between us is not that I reject "economic reasoning".

### **The logical flaw in micro theory**

Now, after these two remarks, I remind you that the principal bug in microeconomics – as you find it in all textbooks (including McCloskey's - see appendix) – is not in the use of mathematics, or in the "unrealistic" preference relations, and so on, but in the very simple fact that, if you suppose, as micro theory does (at least, "at the beginning"), that *everyone* is a price-taker, then you *logically* need an auctioneer-type institution to set prices. Then, *and only then*, can you legitimately speak of supply and demand *curves* (or *functions*) and so on. Without an auctioneer, you need at least some *price-making* agents, and if you introduce such agents you find yourself in a completely different theory. You can, for instance, imagine people wandering around, bargaining, etc ..., as David Kreps suggests in his *Microeconomic Theory*, pp. 196-197, saying that these kinds of models are in their "relative infancy" (how is this so, when there are so many people all around the world producing all kinds of models?).

I think that I don't need to remind you that the founders of neoclassical theory were perfectly aware of the logical problem concerning the origin of prices in a model in which everyone is

supposed to be a price-taker. Jevons tried to avoid it with his “trading bodies” metaphor, Walras by assuming that prices are “barked” or “barked out” (“les prix sont *criés*”) and that there are no exchanges (nor production) outside of equilibrium. Edgeworth, perhaps the most clever of them, clearly criticized these illegitimate assumptions and saw the logical flaw or circular reasoning implied in them – a flaw that you find in all microeconomic (or “price theory”, or “economics”) textbooks, Stiglitz included – which consists in deducing supply and demand curves (functions) from the behaviour of *price-taking* agents and then explaining that the prices they take are determined by these supply and demand curves (see appendix for two examples).

So, if you insist on keeping a neoclassical or individual-based theory about the world around us, *you should at least be consistent and not skip necessary steps: you have to suppose that there are (at least, some) price-making agents, and that they bargain.* You cannot escape the problem, as is so often done by saying that “the market does this” or “the market does that” and by speaking of “market forces”, “the law of supply and demand”, “equilibrium point”, which are just words or metaphors that suggest some mysterious “mechanism” that is constantly engendering prices. Worse still: these prices are supposed to be efficient if they are not hampered by rent controls, agricultural subsidies and trade barriers, as in Caldwell’s examples.

You may give the impression of rigor by drawing supply and demand schedules on the blackboard (they give this impression to people who have been brought up on them); but you don’t escape the logical flaw. If you want to draw something, then draw Edgeworth’s box; it at least allows you to introduce some of the more elemental problems of bargaining.

Deirdre McCloskey gives an example of “applied microeconomics” (sorry, “price theory”): the rise of oil prices in 1973. This is exactly the kind of important historical event that it is silly to explain by using nice supply and demand curves. This is a very, very complex case of multilateral bargaining (with price-makers involved)! There are OPEC and non OPEC countries, quotas decided by some of them, and not by others, strategic and political problems between countries, expectations of traders about what will happen in the future (see what is happening now, with the US-Iraq affair). Even Cournot’s model (where there is an auctioneer) is of no use here.

I am sure that a certain type of student is very happy when we use “applied price theory” to explain the oil crisis (and the French Revolution and the decline of Spain, as is so often

done) – it's so nice to understand without studying. But I doubt if we are able to do it, even though there are a lot of people publishing papers on the oil question.

Caldwell and Nelson give the Ricardo comparative advantage example of microeconomic reasoning. OK, but where are supply and demand curves in this case? Do they think that Ricardo is a “micro-economist”? I have never seen his name in micro-economics textbooks.

There is also the (inevitable) question of elasticities and of the impact of taxes – a normative question, for sure. It is obvious that if you take general equilibrium prices (with an auctioneer, etc.) as a benchmark, then *every change in prices* is sub-optimal (in the sense of Pareto) – because Arrow-Debreu general equilibrium is a Pareto optimum. As Samuelson remarked a long time ago, you don't need the “surplus” concept, and the demand and supply schedule, to explain that. That's for the abstract theory. If you want to study the problem in practice, you start from the fact that agents are more or less sensitive to the price movements of different goods; if you want to know just how sensitive, you can ask them, make polls or use different kind of econometric methods to (approximately) evaluate this sensibility; then you have an approximate idea of the effects of varying taxes (elasticity, in the mathematical sense, is a local notion that only gives information about small “movements” around a given – observed – point).

I also don't agree with Ann Mayhew<sup>6</sup> when she says that “explaining the behavior of small firms that operate in markets consisting of other such firms” is a “simple problem” for which “there is certainly something worth keeping in standard microeconomics”. Because it is “a simple problem” only if you suppose that there is an auctioneer with price-taking firms (and consumers). But does anyone consider that these are “simple”, or relevant, assumptions?

*En résumé*, and again: if you want to be a consistent neoclassical theorist (starting from individuals, tastes, technology and endowments), you *have to start* from the beginning: generalized bargaining between individuals. Unhappily, you cannot go very far in this direction; you can perhaps say something about Nash (normative) solutions, about Salop-Rubinstein models with complete and perfect information, about the core of the economy (without production), and about its “shrinking” when the numbers of agents of each type increase. But nothing more. I suppose that's why microeconomic textbooks don't start with bargaining, and prefer the (invisible) walrasian auctioneer.

Now, in practice, what do we observe around us? With the exception of the stock market and commodities prices, most (relative) prices are quite stable: why? That is a very interesting

question. We are constantly teaching that prices adjust with supply and demand; but, in fact, it is quantities (stocks) that adjust, and most relative prices don't move, or move slowly. And this is a very important and happy fact: if prices were moving constantly and everywhere, as in the Stock Exchange (the famous "volatility"), then no middle or long term calculation could be made, and there would be no investment – and, finally, no production. People would spend most of their time bargaining, searching "the lowest price", and so on. A long time ago, John Stuart Mill – who didn't use "supply and demand" curves (and not because he was intimidated by (elementary) mathematics) – explained that competition could not be separated from custom. He tells us of competition (supply and demand) that "it rather acts, when it acts at all, as an occasional disturbing influence; the habitual regulator is custom modified from time to time by notions of equity or justice . . . , when competition does exist, it often, instead of lowering prices, merely divides the gains among a greater number of dealers"

I think that you cannot study economic relations if you don't pay attention to institutional arrangements, customs and traditions, mass psychology, class conflicts, and so on. Obviously, this is very difficult, and you have to be very modest when you teach these things (it is much easier to tell our students that "theory - mathematical models - show this or that; if you do this, then you will have that, etc." than to say "well, I don't really know, but in my opinion . . . ."

Now we come to the last, and eternal problem of the "alternative theory". Well, first we have to be cured of our inferiority-complex with neoclassical theory. If we think that it is a bad, empty theory, then, there is no problem: any theory can be at least as good as it is. Classical economists (Smith, Ricardo, Mill) say a lot of interesting things; Marx and Keynes, too; there are some good ideas in "old macroeconomy", in the IS-LM fashion. Leontieff and Sraffa models allow us to think about inter-dependencies in the economy. Economic history is quite fascinating – especially the evolution of capitalism (in the way done, for example, by the French "regulationniste" school).

Neoclassical models – with utility and production functions, and maximizing agents – have nothing to say about all this. And we have to explain why, again and again.

I don't think that we will some day "produce" a new "great theory", whether in the axiomatic way or not. But do we need it ? Even without it, we can say a lot of interesting things about the world and how to change it. Economists always have something to propose.

## Appendix: On McCloskey's and Friedman's "price theory"

Deirdre McCloskey gives her *Applied Price Theory* ([www.uic.edu/~deirdre2](http://www.uic.edu/~deirdre2)) and David Friedman's *Price Theory* as examples of good economics. Sorry, I don't see the difference between these two books and other standard micro-economics textbooks (almost all the "examples" in these two books are imaginary and made up) and I find in them the same logical fault that I pointed out in my main critique of microeconomics. Here is the proof.

Both McCloskey and Friedman start with traditional consumer-choice theory and suppose price-taking agents - without this assumption it would be illegitimate to draw a "budget line", as they do. This seems to be the obvious thing to do: when a consumer goes to a shop, he takes prices as given.

Then, they both deduce the demand (and supply) curves of a household: this is standard microeconomics (Friedman, chapters 2-4; McCloskey, chapters 1-4).

They differ a little in the next step: Friedman treats the firm in the same way he did with the consumer. He always supposes price-taking agents (without saying it clearly); but this is a less obvious assumption: bosses or managers don't buy their inputs in shops as consumers do, and, when they sell, they propose a price. But, after more than 40 figures (about consumer choice), students probably don't react anymore: instead they are likely to be tired and ready to accept anything.

Both (McCloskey and Friedman) have a special chapter on exchange – Friedman, Chapter 6 “simple trade”, McCloskey, Chapter 5, “trade” – where, among other things, both present the Edgeworth box.

HERE is the problem: we all agree (even Marx) that there are mutual gains to be had from a trade, but that this is not enough to determine prices. Friedman uses the usual *deus ex machina*: "the market". The title of his Chapter 7 tells us how he sees things: *Markets - Putting it all Together*. Friedman says: "in Chapter 3, we saw how the behavior of an individual consumer led to a demand curve, a relation between the price at which he could buy a good and the quantity he choose to buy" (p. 156) Then he explains "the *market demand* curve is the horizontal sum of the individual demand curves" (p. 156, his italics). But who carried this "sum" out ? The same happens with the supply curve: "in chapter 5, I showed how individual supply curves could be derived . . . the market curve is the horizontal sum of the individual supply curves" (p. 157). Then comes the (apparently) obvious: "we are

now ready to put supply curves and demand curves together". Obviously, too, these curves cross at only one point, equilibrium, E. Friedman asks: "What will the market price be and what quantity will be produced and consumed at that price?" (I suppose that "the market" is "we", as it is we who "put supply and demand curves together "). He then answers: "As any experienced guesser could predict (sic!), the answer is point E, where the supply and demand curves cross". He explains then that it is because "if price is too high, producers find themselves with products that they cannot sell. In order to get rid of them, the producers are willing to cut the price. Price falls" (p. 157). Elementary, my dear Watson, if you forget that demand and supply curves give the choices of *price-taking* agents! Then: WHO cuts prices? Friedman doesn't answer this question (indeed, I am quite sure that he isn't even aware of it, and he is perfectly satisfied with appealing to the metaphor of "the forces moving the system back to equilibrium", as he does on page 159.

Deirdre McCloskey is a little more subtle. She prefers to use the "many agents" Edgeworth's approach (and, implicitly, the Debreu-Scarf result). At the beginning, she accepts the indetermination of bargaining, but only when there are few people, and then she uses an "every day life" argument: "Fortunately for someone trying to understand and predict it, most economic behavior is not bargaining between two people" (p. 96). And she explains that it is because the situation is different when there are many people on both sides: "competition takes place among many buyers and sellers of the same item. In such circumstances each seller or buyer takes the price obtainable as given, for with many sellers and buyers no one of them can alter the market price by threatening to refuse to bargain" (p. 97). I ask: if "each seller or buyer takes the price as given", from where did this "market price" that they cannot "alter" come from? Next, in a section very significantly entitled: "How the Market Achieves Equilibrium" ("the market" does this or does that . . .), she says: "a radical simplification in the theory of exchange is permitted by price-taking. It eliminates bargaining" (p. 97). Who "permits" this simplification? After explaining that "one can still, however, look at the behavior of the market (sic!) in an Edgeworth box", she considers exchanges of "thousands of (farmers and consumers called) Howsons and Webbs", that form "the whole market". And she explains that "Each Webb is unable to influence the money price of wheat he faces in the market and therefore takes the price as given". The same for each Howson. OK. But just after that, she writes: "When the price varies, . . ." (p. 8). Do you see the bug?

No? Try again: "The market price is determined, the self interest of thousands of price-taking suppliers and demanders has led to the glorious end of the story, Equilibrium" (p. 99). Agents "determine" prices that they take as given.

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