

TAKING THE RED OR BLUE PILL?

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In standard neoclassical economics, with what does the textbook begin? It begins with a highly philosophical assumption that is presented as fact. It is the assumption that society comprises of atoms, of individuals who are characterised fully and exclusively by their preferences. All that they each do in life is to try to satisfy their own bundle of preferences. This is the utility maximisation principle. Utility is presumed to be capable of being modelled as a mathematical function. The maximisation of these utility functions yields all the familiar instruments of torture for first year economics students, like demand curves, elasticities, supply curves and all that. Economics is presented as mathematical physics.

The problem I had as a teacher of this discipline in the traditional mainstream economics course (at the University of Sydney) was that the students actually bought it. I would introduce the principle of utility maximisation and then try to criticise it, pointing out the important aspects of the human condition this do not fit into it. The students would often resist the criticism, however, saying that even if a person chooses to be relatively altruistic it is still their own preference that is being satisfied, so the model works well. In a desperate attempt to convince them that, no, there is still something amiss, I tried to tell a story, creating a mental experiment for them. I asked them to imagine being in a room in which there is a magnificent computer that can read with perfect accuracy everyone's preferences. There's also a team of nurses and medical staff who connect electrodes to your brain. That enables the computer to create a virtual reality in your mind which is completely in accordance with your own preferences. This machine is your friend. It is not brainwashing you: it is not implanting into your mind things that you

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don't want. Think of it as the ultimate utility maximiser. It reads your utility function; it knows exactly what preferences you have, what you like what you don't like, your desires and your passions; and it creates a virtual reality. Life for you, when you're attached to this machine, is as real as this one. You live your own dream. The question is: will you join the machine? Ask yourself: would you press the button and be connected to that machine, knowing that at that moment you lose any sensation of reality as you get into this virtual reality which serves your preferences best?

The reason I would give my students for doing this kind of mental experiment was to incite them to cast a critical gaze upon utility maximisation as a theory. What I would say to them is: 'If you choose not to join that machine, then you can't agree with the principle of utility maximisation. You must think that there is something else other than utility that matters in life and this something else is preventing you from joining the machine'. Of course, there were usually some smart kids who would say: 'no, Professor, this is not true: I have a preference for reality'. Then I would say to them: 'this is a very interesting point. The actual decision to switch off this reality to another reality is causing you so much disutility that you choose not to make it. Imagine however that this machine now has a version 2.0 which is more sophisticated than the original one. The new machine can take over your mind without you making a choice, without you choosing to join the machine. Maybe you faint and the medical team takes you to the bed, but you haven't realised that there is complete continuity between the present moment and the life attached to the machine. Would you agree with me that the world in which all of us have been taken over by the machine, living the dream without ever having to make the decision to be attached to the machine, is the ideal society? It would be a society in which there is one large machine and billions of people lying down in beds, hooked up to machines'.

Asking the students whether this is the ideal society, the majority would usually say no. Some committed utilitarians might say that it is the ideal life, but there would be other kinds of objections. Some would say that they prefer to have a genuine experience, not a fake one in their mind, or that they would like to be helping others if they are altruistic. Then, of course, we would get into the standard philosophical discussion about defining reality: how do you know that we are not now attached some machine and that this is more real than something else?

Anyway, this was my way of making the students think that there was something profoundly wrong with utility maximisation. It is that constraints not only stop us from doing things: they help us develop as human beings. In other words, our preferences are evolving as a result of hitting against the barrier of constraints. It means that we are forced by life to often do things that give us a lot less utility than we could like. It is in this process, however, that we develop as human beings. Unlike the liberal, individualistic human tradition, successful life cannot be defined on the basis of one's initial preferences, because they may be immature or very stupid preferences. Unless one gets an opportunity to develop better preferences, then one never gets to grow the talents that one innately has. The utility machine doesn't know this: by removing all constraints, it ensures that you will never develop. You'll remain the same moron that you are now. You will be so until you die because the machine knows nothing other than to serve you. But the servant, in the end, becomes the master, having removed all the liberating constraints. That was the story I was trying to tell them.

The Matrix: choosing which pill to take

Now imagine my great pleasure and also slight disappointment when I watched the movie *The Matrix*, which was filmed at the Fox studios in Auckland. *The Matrix* is exactly that story. It's a dystopia, as I meant to be for our students. Instead of choosing to join the machine or not to join the machine you're already the machine. Morpheus presents you with a red pill and the blue. If you take the blue pill you forget that your life is not real and that you're attached to the machine that is creating this fake, virtual reality in your mind. If you take the red pill you live a more difficult life of constant struggle against dystopia, but at least you get the chance, firstly, to live a very real life and, secondly, to change.

Political economy is the kind of discipline one indulges in if one doesn't care about having an easy life. Speaking truth to power, in particular, comes at a hefty price in many countries around the world, including Australia. By comparison, the neoclassical tradition, which is the mainstream of economics, is the blue pill. Think about what you learn if you do a standard Master of Commerce or Master of Economics degree.

You learn that we live in a Panglossean world, indeed the best of all possible worlds. Even if there are market failures, still the social market economy which we find ourselves is the best we could possibly have. The only improvements that can be achieved are those that come from moving closer to the model that we are learning from our textbooks. That means privatisation, deregulation, getting rid of unions and all those impediments to the fallacious operations of market forces. If you get locked into that mindset, the world looks like a wonderful place as long as you learn to adapt yourself to it and not to question its fundamental function. It's another form of religion in a sense but, as long as you accept the dogma, progression through the ranks of the priesthood can be rapid. You are guaranteed a decent job. Maybe you could get a mortgage by the time you are 26: this is a measure of success in Australia, isn't it?

So, having taken the blue pill, all you need to do is to learn to work within the confines of this model – to learn to recite the sermons and have to create some variations on the theme, but without actually rocking the boat too much. By contrast, the red pill is one that you take at your own peril. Challenging the orthodoxy leads to more personal obstacles, whether in academic or business institutions.

There have been economists who challenged the orthodoxy and didn't suffer. One, Kenneth Arrow, was a guru of the mainstream. He was a standard mathematical economist, probably the best that ever lived. He didn't question mainstream economics from a philosophical perspective. He didn't worry that the mainstream utility theory leaves out a lot that matters about humanity. He had no political objection to neoclassicism. Rather, he had a curious mind and tried to check one presumption that was central to the practice of mainstream economists. It was the presumption that, just as an individual has a utility function whose maximisation tells you all you need to know about rational individual behaviour, society has a similar function that can be maximised. This is called a social welfare function. Previously, economists had presumed that, if an individual has a utility function whose maximisation yields the outcome that explains rational behaviour, something similar must happen for society as a whole. The presumption is that there must exist some mathematical function that aggregates this collection of individual utility functions into one collective social welfare function whose maximisation tells you what's good for society.

If you accept the method of the mainstream, you begin at the micro level. Like physicist, you look at the level of the smallest entity which is the social outcome of the individual. The method of study will hone in on the assumption that each of us maximises a particular utility function. Then the question is what do we do collectively? What justifies the state extracting taxes from you? You cannot explain that on the basis of Jack or Jill's utility. There must be a utility function for both Jack and Jill together, whose maximisation yields the optimal sales tax or income tax or corporate tax. It is a way of taking Jack's and Jill's individual utility functions and combining them into a common one. All economists up to that time and taken for granted that surely there is one. Ken Arrow questioned that. In politics the electoral system and the transforms our individual preferences into a collective choice. Arrow considered whether there is a similar way to identify a social welfare function. Within the space of a couple of years (during which he produced other important theorems of neoclassical economics) he developed probably the most significant theorem of the social sciences of the 20th century – Arrow's impossibility theorem. He proved that, under assumptions that almost everyone – especially neoclassical economists – accepts, there exists no way of aggregating individual preferences into society's preference.

Therefore, neoclassical economic has nothing to say about what is in the interests of society, which is a rather significant problem. There can be no theory of taxation. There can be no theory of international trade. In international trade theory what neoclassical economists do is to treat each country as an entity with its own utility function, with its own well-defined interest. Now what is this utility function? It's the aggregation of the utility functions of all its citizens. But that doesn't exist, according to Arrow. You could only have a social welfare function by assuming full dictatorship – one person who has preferences that trumps everyone's preferences on every issue. Neoliberals - who are neither neo nor liberal by the way - still want to pretend they are liberals, so they cannot accept this dictatorship principle. So the conundrum remains. The economics profession wants to tell stories about what is good for society, to tell macroeconomics stories based on utility maximisation analysis. This is the grave dilemma which economists within the mainstream face and why they should take the red pill. Nothing that you hear mainstream economists say on television or in the pages of financial newspapers has

any basis in their own analysis, for reasons that Arrow's impossibility theorem explains quite well.

Improving the model, avoiding the choice of pill?

Some economists have tried to do something different in order to make the model a bit more realistic. For example, a mathematical economist called Matthew Rabin tried to add a little bit of psychological texture to 'rational economic man'. He sought to introduce a simple psychological thought, recognising that we not only care about outcomes, we also care what others think. For instance, take a young person whose parents and peers have expectations of him or her, perhaps expecting him or her to get a degree in economics, law, medicine, whatever. In these circumstances, second order expectations infiltrate the utility function and create a more realistic picture. It is a picture of a human who doesn't only care about whether he or she is going to become an economist or a doctor, but the utility he or she gets from becoming an economist or doctor also depends upon the weight of other expectations upon him or her. Rabin demonstrates this nicely by saying: imagine a situation where are you would rather become an artist, but your mum want you to be a doctor. Because you do not want to disappoint – disappointing her would reduce your utility – you may choose to become an economist, even though there is no coercion to do so. It is mathematically possible to model this, but the usual outcome is indeterminacy. The demand curves cannot be defined because demand depends on what I think that you think that I think. It's impossible therefore to pin down a precise, determinate relation between price and quantity demanded. So the whole modelling process explodes.

I have observed in a variety of universities, especially in the United States, that professors and supervisors encourage their students to play around with the models, to try to make them more realistic, to infuse a degree of humanity in the utility functions and the assumptions. However, the students are not allowed to submit their PhD thesis unless they solve the model, but to do that they would have to do away with all the nice, fuzzy, warm stuff about real men and women that they had infused into it. Either the hapless PhD student has to start again from scratch or do something really sneaky – to introduce through the back door an assumption which can never be explained logically but which

allows the mathematics to be solved. This is what it is usually done. It takes a heroic disposition to say: 'to hell with it, I'm not closing a model on the basis of assumptions that are logically incoherent. If I state them, nobody is ever going to accept it. Better to just close the model for the hell of it, to get the PhD, become an academic, spent 15 years to get promoted to senior lecturer, and then spill the beans on the profession'. Well, psychologists tell us that cognitive dissonance is a very painful thing: the human spirit, mind, soul has a tendency to remove it. By the time you're 35 or 40, how many heroes are there in the world who will turn around and bite the red pill? The answer is very few, especially when your income depends on not spilling those beans.

These tensions are particularly evident in this era of financialisation, with the financial sector paying economists huge quantities of money to take those models and transplant them to finance. Remember those wonderful, collateralised debt obligations and all those complex derivatives in the lead up to the great crash of 2008? The heads of Lehmann Brothers and J.P. Morgan every day would go to work and would demand to know the latest figure for the value at risk (VAR), which would tell them how much of the assets of their companies was at risk that day, given the most recent developments in the financial markets. They demanded a number, but to have this number some economic model had to be closed. Now remember the hidden axiom that was necessary to close the models of the hapless PhD student? That was the kind of axiom that had to be embedded inside those financial sector models. It was an equilibrium assumption – an assumption that equilibrates the various variables.

What does it mean to impose an assumption of determinacy and equilibrium? In the world of microeconomics and finance it is to assume that the various covariance matrices of risks have numbers in the diagonals and zeros everywhere else. In other words, it is to assume that there is no statistical correlation between the probability that you default and the probability that I default. Or it was Epsilon, tending to 0, a positive number vanishingly small. That might be reasonable for some human situations: for example, estimating the probability that I would break my leg in my bath today and you'll break your leg as a result of my breaking my leg. If we live in different homes and we are not in the same bath, it makes sense to assume these probabilities are independent and therefore the covariance between the two variables is zero or vanishingly small. But to make those assumptions about financial markets is the equivalent of assuming that there never be a crisis. Of course, if they

could never be a crisis you don't need a VAR: you don't need any such measure at all, do you?

The challenge for political economy

Within the economic profession the dominant incentive is to learn the trick of introducing hidden assumptions and keep biting the blue pill. Mainstream economists in financial markets can make millions by doing so. Meanwhile, in academia, economists publish their theoretical papers in the journals which the priesthood of neoclassical economics considers give the most brownie points, leading to more tutors being employed in those university economics departments, getting more research grants and so on. To go in a different direction by biting the red pill and questioning all these models is likely to condemn you to a much more difficult existence. When I was involved in developing and teaching the political economy program at the University of Athens we constantly had to hold the fort against monumentally powerful forces trying to squash the living daylights out of it.

Why? Because taking the red pill is challenging to the established order of things. It is a kind of heretical thinking. Kenneth Arrow's heresy was logical and ultimately excepted, even celebrated, but it left welfare economics bereft of any guiding principle. Also coming from within the mainstream, John Maynard Keynes made the fundamental transition from the blue pill to the red pill. This enabled him to have something useful to say about the great depression. Had he not bitten the red pill, there would have been absolutely no commentary that made sense in that troubled area.

However, those of us who think we are biting the red pill – whether as Marxists, Keynesians, post-Keynesians or whatever – must beware the strong possibility that the pill we are taking which looks as if it is red is getting bluer and bluer. This is my criticism of a lot of Marxism – and I speak as a Marxist – because of the way in which dialectics has sometimes been lost in sterile discussions about the labour theory of value. Even Marx himself, as he was being lured into British political economy, tended to remove himself from his earlier commitment to the dialectical process.

But political economy can be a potent and effective red pill as long as we teach it in universities through a combination of three things. First, economic history: when we talk about capital, rent and the labour force, these must be located in historical context. Second, history of economic thought, in conjunction with economic history: we need to know about the evolution of economic ideas. Third, lots of scepticism is essential, especially about things that people say have already been solved.

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