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The professor of economics rewriting textbooks: we are more than Homo Economicus

The paradigm of what constitutes the foundations of economics is changing, Wendy Carlin explains

When she wants to show her students that we are more than Homo Economicus, and that economics should reflect that, she plays games – games studied by the Nobel prize winner John Nash. She believes that economic textbooks need to incorporate the economic research of the past few decades. That is why she heads the CORE project, the global collaboration of university economists, which has produced free online textbooks. CORE's texts are used in top universities in its home, the UK, as well as universities across the US, France, Hungary, Australia, India and dozens of other countries. This September, Wendy Carlin gave keynote address at the annual conference of the Slovak Economic Society.

Paul Samuelson was quoted as saying that he does not care who writes a nation's law if he can write its economics textbooks. Are textbooks really so influential?
They are. They shape the way policy-makers, company managers and journalists think about the world. These are the channels through which textbooks then impact the understanding of the public. This is one of the reasons why it is crucial to step back and critically assess how we teach economics. We should try to find methods that are a better reflection of all that we already know, and that respond to current problems.

You have just given a lecture on the broken paradigm of economic teaching. What is your main message?
A paradigm is what we teach our undergraduates. It is the condensed knowledge of the given discipline. In economics, this means answering the basic questions about what the economy is, what sort of economic actors there are, how they interact and what the outcomes of those interactions are. We should also add something about how to assess those outcomes. Economics should also help us create the right economic policy.

Does the paradigm change?
The post-war paradigm comes from Paul Samuelson quoted earlier. His 1948 book was the first modern textbook of economics. It consists of two parts: Marshall's microeconomics and Keynes' macroeconomics. Why was Keynes included? Because of the Great Depression, which gave rise to a new understanding of the economy. This later became a new paradigm for teaching economics, and was replicated across all textbooks. The two used most often now are by Gregory Mankiw and Paul Krugman. Those two are amongst the followers of Samuelson.

What is it like today?
The point of departure for the new paradigm developed in the CORE project were the answers to the new questions raised in economic research. Economics has made a large leap in the past thirty-forty years, in two ways. First, there is the understanding of strategic interaction; second is the role of local and incomplete information. These two channels represent John Nash and game theory on one hand, and on the other hand Friedrich Hayek and other information theorists such as Stiglitz, Spence, and Akerlof. These two fields made a huge contribution to modern economics, but you won't find either of them in standard undergraduate teaching based on Samuelson. There the economy is static and isolated from the rest of the society and the environment.

What is the CORE project's paradigm?
We argue that the economy is dynamic. One of the simplest ways to demonstrate this to students is by using the plot of output per head. It looks like a hockey stick. Living standards didn't change for hundreds of

years, they only started to grow after the Industrial Revolution. That is a phase change, a dynamic process. It immediately begs the question of how we moved from one world to the other, but that's not something you can answer in a static model. Today, the economy is anchored in the society and the environment. If we want to understand economic problems, we need to also understand the relationships between the economy, the society, and politics.

How does Mankiw answer the question of "what are people like"? I remember his definition that "people respond to incentives".
It's actually much stronger than that. Mankiw claims that people are homo economicus – that we only care about ourselves. The thing is that there is a lot of research out there now, including behavioural and experimental economics, which shows that it is not correct. People are not only selfish, they do take into account how they impact the others.

People also get things wrong systematically.
Yes, mostly due to their cognitive limits, especially when it comes to financial decision making. But let me tell you more about their interactions. Samuelson claims that interactions take place on competitive markets where prices are taken as given. Ask a group of people what they remember from economics and they'll describe a graph of the crossing curves of supply and demand – that's exactly what it describes. We highlight that economic interactions don't only happen on the market, but also within companies. For example, there is the power relationship between an employer and an employee. It is governed by incomplete contracts. The labour market is not perfectly competitive, because even if the employer could stipulate the exact wage she is willing to pay, she cannot set the exact effort required for the job. How do firms respond to that? By paying a slightly higher wage. However, that means that the labour market will never clear.

Is this an argument in favour of trade unions?
No, it is a different argument – neither in favour or against trade unions. It is about how the labour market works. Employees get wages that are higher than if the labour market was perfectly competitive as represented by the supply and demand diagram. When you talk to students with some work experience, they understand this immediately. When they work as baristas or waiters, the wage is transparent, but their employers may tell them to smile at the customers. They motivate them by higher pay, which makes it more costly to get fired. As a result, they put in more effort. Similar non-market relationships exist between business owners and the hired managers, but also for example between banks and the debtors. A bank sets the interest rate, but it cannot ensure that the debt will be repaid. Hence some people don't get a loan at all, and others are asked to pay more in interest as a form of insurance against debt default.

You also spoke about the changes in how we judge economic transactions.
Mankiw the other conventional textbooks only talk about efficiency. When there is an economic interaction going on, they always asks whether there are any gains to be exploited. That makes sense, but people care about the fairness of the outcomes, too. We teach this by playing games with our students. For example, the public goods game: you have some money you can invest in a common project. If others contribute too – great. If you are the only one to put in some money, others will still benefit. Homo economicus would never put any money into such a scheme.

Is this how game theory argues in favour of government provision of public goods?
Actually, the point is even more interesting, because our a priori expectation is that nobody will contribute. But when you run an experiment, it turns out that there are people in every group that do. When you study their motivation, you see that if the game does not contain any punishment for non-cooperation, their contributions to public goods decrease over time. This justifies the idea of taxation and state provision of public goods. The observed behaviour in these experiments, however, also suggests that public goods can be provided by other means that the state. The work of the Nobel Prize winner Elinor Ostrom was about communities taking care of waterways, irrigation systems and common fishing rules.

Does the paradigm change include different emphasis on values? Earlier you mentioned efficiency and

fairness.
We do not teach our students what is fair, we merely ask them questions. Another interesting related experiment is the Ultimatum game, where you have to decide how to split a hundred dollars between you and somebody else. In order to get any money, the other side has to agree with your split. How much would you offer me?

Forty dollars.
That is the most frequent answer. But what would Homo Economicus do?

Probably only about 10 dollars.
I should accept as little as a single dollar, because it is better than nothing. But nobody plays like that. This shows that Homo Economicus is not a good model of behaviour. People have a sense of fairness and an offer of a single dollar would be considered unfair. And you would be punished by getting nothing. The 60-40 split, on the other hand, would be accepted.

Where is this sense of fairness coming from? Is it nurture, culture, or nature? Experiments with apes show that they have it too.
That is a big question. We know that the willingness to bear some cost in order to secure a greater good is deeply rooted. Both evolutionary economists and anthropologists are debating that right now.

Does the Great Recession of 2008 change economics textbooks in any way?
It was actually one of the main stimuli for our project. Economists have been criticised for their failure to predict the crisis. Now, it is not their job to do that, but they certainly should be alert to how the central banks manage the economy through inflation targeting. Many economists thought we were in some kind of era of stability, and then suddenly the financial crisis hit. Since then, it became much clearer that we need to understand the financial system too and then it needs to be brought into the core of standard economics. Until then, these were two completely separate fields (macroeconomics and finance). Ministries of finance were not full of analysts looking into banks and the leverage effect, which was creating the systemic risk of financial crisis. This is why our project also includes economic historians. In real time, Kevin O'Rourke and Barry Eichengreen observed how similar the last crisis was to the Great Depression at the end of 1920s. This influenced policy-makers, who avoided making the same mistakes. They wanted to use all the tools of fiscal and monetary policy to cushion the crisis, and this worked to some extent.

***The Economist* has recently commented on how difficult it is to teach macroeconomics, because textbooks do not show that economists disagree. How do you deal with this?**
We do not focus on contradictions. We try to take the best from economics research and use it to build a coherent picture about how the economy works. If you combine the knowledge about the workings of the labour market or the financial market in order to create a macroeconomic model, it will be consistent. The model will be more robust and embedded in real data, and it will be capable of explaining crises and stagnation. Disagreements (in economics) do exist, but agreement is much more common. Moving away from an ahistoric interpretation of economics makes the students more confident in their understanding of the world. At the same time, they do understand that a surprise can always come, and we have to be sufficiently alert to that. We can do that today much better, especially when it comes to the financial sector. We do not know where the next crisis will come from, but we are building much stronger foundations for economics.

You worked with David Soskice, known for his book on the varieties of capitalism. His argument is that countries do not as much draw inspiration from various economists when creating their economic policies, but that they differ as societies.
A great illustration of this is our comprehension of the eurozone problems. If we want to understand why, in its second decade, the monetary union is struggling, we have to look at the differing institutions in the member states. Take the labour markets in Germany and France, Italy, Spain. In Germany, wages are set by companies together with works councils and trade unions in order to maintain the country's competitiveness in exports. This orientation toward competitiveness is very different from how wages are

set and how trade unions view the world in some other eurozone countries. If you link these two different systems with a common currency, you have a problem on your hands.

Why?
Because the German system is able to react to shocks and maintain its competitiveness, thanks to its flexible ways of adjusting wages, hours and employment within companies. This is different in the South: wage-setting is more centralized and high unemployment is required to restrain wage growth.

Should we try to harmonise these systems?
This is one of the problems facing the politicians attempting to implement structural reforms. They don't take seriously enough how deeply rooted institutions are in the given society. There is no magic button that would change, for example, the French model of trade unions into a more decentralized and flexible one along German lines with works councils setting wages and working conditions based on local conditions and in which a focus on exporting brings discipline.

This is what the French president is trying to do.
Yes, but it will be extremely difficult. This is what we should have been thought through when creating the monetary union, instead of relying on generic structural reforms. They simply cannot be implemented everywhere in the same way.

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