*This article was referred to me by a former student in ECO403 and ECO407. Thank you, Akman.* 

## **Crash and learn: Should we change the way we teach economics?**

By David Pilling September 30, 2016 – *Financial Times* 

The Post-Crash Economics Society at Manchester University, from left to right, Ethan Davies, Fráncéscá Rhŷś-Williams, Joe Earle, Milana Yandieva, Cahal Moran and Jack Hughes

For a group that has helped change the way economics is taught at universities up and down Britain, the Post-Crash Economics Society had a less than momentous start.

was November 2012 when It seven undergraduates met in a cramped room on the top floor of Manchester University's student union. Chairs drawn into a semi-circle, they listened as the two founding members went through a brief PowerPoint presentation explaining what they thought was wrong with the economics curriculum. A polite discussion followed before everyone shuffled off for the Christmas holidays. It wasn't exactly Paris 1968.

The students had gathered in response to an email with the subject line: "CALL OUT TO ALL THE ECONOSCEPTICS OUT THERE". "In the middle of the biggest global recession for 80 years," the email read, "students across the world are questioning the very foundations of our discipline."

It asked whether the economics they were learning, dominated by mathematical formula and abstract models, was relevant to the real world. "How far can economics be called a real science?" it prodded, an allusion to academic economists' tendency to present their equations and mathematical identities as iron laws rather than imperfect attempts to model unpredictable human interactions. Isn't economics, they suggested, really more like politics than physics?

The Post-Crash Economics Society was not alone in feeling this way. Ha-Joon Chang, a developmental economist who teaches at Cambridge, remembers "students banging on my door, saying, 'There's the biggest financial crisis since 1929 going on around us and our professors teach as if nothing has happened.'"

In 2011, students at the university set up the Cambridge Society for Economic Pluralism, galvanised by attending a corporate-sponsored, casino-themed ball run by the Marshall Society, the official Cambridge economics society, at which attendees sipped champagne and talked about jobs in the City. It was, says PhD student and co-founder Rafe Martyn, aimed at those "who learn economics to make the world a better place rather than just improve their private-sector employability". Similar societies began to take root on other campuses.

It is hardly surprising that after the sharpest economic crisis since the Wall Street crash and an even more prolonged sense of malaise, which has provoked political upheavals across Europe and the US, the economics profession is under profound pressure.

The economic "experts" who told us we had solved once and for all the problems of boom and bust and who ignored — even celebrated widening inequality in most advanced countries have proved wantonly lacking in their powers of prediction and remedy. What is perhaps more striking is the determination of many in the economic establishment to defend their turf. Chang laments that economics, like other disciplines defended by tenured academics, progresses one funeral at a time.

Even so, against the odds, the students' protests have gained momentum and are nudging change. As the new academic year starts, several universities in Britain are offering courses that approach economics with a wider perspective. Second-year students at Cambridge, for example, will be able to take a 30-lecture course on the History and Philosophy of Economics, in what, says course co-ordinator Chang, will be the first such programme at a major English-speaking university in a generation.

In London, both Goldsmiths College and the University of Greenwich are offering courses with a pluralist bent. University College London is already teaching from the opensource "core" programme, which seeks to make economics more relevant to the real world. At Manchester, too, broader-based modules are being introduced, too late and still too narrow for the students who pushed for change back in 2012, but a breakthrough nonetheless. Post-Crash Economics itself has folded into Rethinking Economics, a registered charity that links more than 40 student groups pressing for curriculum changes in campuses from Italy to Canada and from China to Brazil.

"It's all happening now," says Diane Coyle, professor of economics at Manchester University. "Almost anybody teaching economics accepts that, post-crash, the curriculum needed reforming, though I understand why for students this is all impossibly slow."

The revolt over the curriculum has implications far beyond academia. Today's students are, after all, tomorrow's trained economists, who will be running our economies from their desks in government, banks, multilateral institutions and think tanks.

What students learn about how economies work and how governments can influence outcomes will have a profound impact on future policies covering everything from tax and spending to interest rates, minimum wages, greenhouse gas emissions and trade.

Yet students complain that, as things stand, they continue to be indoctrinated in the methodology of a pseudoscience built on the so-called neoclassical framework. The Econocracy, a book that comes out in November and which was co-authored by Joe Earle, a founder of Post-Crash Economics, presents a picture of mainstream economists as true-believers in a largely discredited set of assumptions, who have invented a parallel universe with "welldefined mechanical relationships between moving parts, connected different bv metaphorical pipes, cogs and levers: interest rates go down, bank lending goes up; taxes go down, investment goes up."

The most glaring failure of mainstream economics, the students argue, is its failure to explain, much less foresee, the financial crash of 2008. The crisis, Earle says, was not mentioned once during his entire first year at Manchester in 2011. Rather, his lecturers appeared to believe in a rational economic system that was largely self-correcting, one that would return naturally to a state of equilibrium.

Earle is self-assured, but impeccably polite. I met him in a café in Kentish Town, near where he was brought up, and afterwards he sent me an email apologising for forgetting to thank me for the coffee and cake. He doesn't seem like the type to rattle the establishment. By the time he started his philosophy, politics and economics degree, he had taken two years out working for the Big Issue, a job that brought him into contact with homeless people all over Britain. He arrived at Manchester, age 20, with a broader perspective than most.

The economics he encountered seemed unconcerned with real-world problems, such as inequality or financial stability. It was dominated by elegant models in which a rational and representative decision-maker sought to optimise his utility (or satisfaction) within certain constraints. The Econocracy reproduces a typical exam question set for undergraduates. "Consider a two-period economy in which the representative consumer maximises the lifetime utility function U (C1, C2) = u(C1) +  $\beta$ u(C2), subject to the lifetime budget constraint (1 + t) C1 + C2/R = W, where 0 <  $\beta$  < 1, W is the present value of after-tax lifetime income, t is the VAT tax rate and R = 1 + r, where r is the interest rate."

Earle complains that the repeated use of such formulaic models presents a "closed system", immune to external interrogation. "You are taught a narrow way of thinking about the economy as this set of rules and laws not to be questioned and not to be engaged with," he says. He would like, he says, to "put politics and philosophy and, well, ethics" back into economics by teaching it as a "contested", cross-disciplinary subject in which different approaches are tested against real-world scenarios. Early writers on economics, such as Jeremy Bentham and John Stuart Mill, made ethics central to the discussion.

As well as the neoclassical framework, Earle says, a pluralist curriculum could include schools of thought that emphasise class relations or human psychology. Instead of extrapolating, as neoclassical economists do, from one rational, optimising agent, more complex models could explore "emergent behaviour", borrowing methods from chaos theory and meteorology.

In practice, many economists feel threatened by the encroachment of hybrid approaches into the enclosed beauty of their mathematically perfect garden. Pontus Rendahl teaches macroeconomic theory at Cambridge. He doesn't disagree that students should be exposed to economic history and to ideas that challenge neoclassical thinking. (He prefers the word "mainstream", since neoclassical, like neoliberal, has become a term of near-abuse.) He is wary, however, of moving to a pluralist curriculum in which different schools of thought are given similar weight.

"Pluralism is a nicely chosen word," he says. "But it's the same argument as the creationists in the US who say that natural selection is just a theory." Since mainstream economics has "immutable laws", he argues, it would be wrong to teach heterodox theories as though they had equal validity. "In the same way, I don't think heterodox engineering or alternative medicine should be taught."

At an early meeting of the Post-Crash Economics Society, Ken Clark, then joint head of economics at Manchester, compared heterodox economists to pedlars of "leeches, tobacco-smoke enemas and homeopathy".

Rendahl says mainstream economics is more flexible than its critics allow. Just as it has been able to assimilate the ideas of John Maynard Keynes, who advocated government spending to correct chronic imbalances of demand and supply, so it can accommodate other ideas, such as behavioural economics in which poor decision-making means utility is less than optimal.

He also argues that students are too critical of the models they encounter as undergraduates, which, he says, are necessarily simplified. "When we start teaching economics, we have to teach the nuts and bolts." He introduces firstyear students to the Robinson Crusoe model, in which there is only one "representative agent". Later on, Friday is brought on the scene so the two can start trading, although no money changes hands since transactions are solely by barter. (Money and credit are strangely absent from most economic curricula.)

Other academic economists share Rendahl's view that students are exaggerating the problems. Angus Deaton, who won the Nobel Prize in economics and teaches at Princeton, says economics is a broad church, but one that needs to be kept rigorous.

He gives the example of Daron Acemoğlu, a "young superstar" at the Massachusetts Institute of Technology, whose research includes the study of how institutions foster or inhibit growth. "He's a very good example of the way things ought to be going, which is you do history but you know enough mathematics to be able to model it too. Banishing mathematics is not the solution," he says. "The model is the cross-check on whether you actually know what you're talking about."

Deaton has collaborated with Daniel Kahneman, in his words the "archangel of behavioural economics", whose work on the psychology of decision-making challenges rational-choice theory. Still, Deaton quips, "Most behavioural economists, when I hear them talk, it turns me into a Chicago economist."

In Manchester, Diane Coyle also defends the basic methodology of economics. She says there is confusion among critics between microeconomics, the study of the behaviour of individuals and firms, and macroeconomics, the study of whole economies. Macroeconomics, she admits, "is broken". But microeconomics is both robust and often verifiable with real-world data. What, she asks, can heterodox economists contribute to typical concerns of microeconomics, such as discovering the right mix of policy incentives to discourage obesity?

At times, the clash of ideas gets nasty. One academic I met at University College London spoke to me in whispers in case colleagues overheard her criticisms of the curriculum, in spite of recent accommodation to more pluralist ideas. At Cambridge, Chang, who has never attained a full professorship, likes to joke that his colleagues should respect him as an economist because he has been validated by the market: his bestselling books have done much better than theirs. The reaction is sniffy. Rendahl quotes one rival as responding, "Who says what Chang is writing is economics? According to this metric, JK Rowling should be considered the best economist in the world."

Chang says he is the "last of the Mohicans", the last non-mainstream economist to make it on to the Cambridge faculty before the powers-thatbe drew down the drawbridge. "Since the '80s, the economics profession has travelled down this incredibly narrow road," he says. Nonmainstream approaches have gradually been squeezed out. Recent student pressure, he says, is shifting the debate. The course he is overseeing on the history and philosophy of economics will introduce undergraduates to non-neoclassical thinkers and encourage them to question the methodology of mainstream economics from the perspective of other academic disciplines. It's a start, but Chang thinks curriculum reform hasn't gone nearly far enough. "There's a lot of intellectual fossils sitting there, saying nothing's wrong," he says.

Students' ideas are also gaining traction in the outside world. Robert Skidelsky, the biographer of Keynes, is a supporter. So is Andrew Haldane, chief economist at the Bank of England. "We all became overly enamoured of a particular framework for thinking, or a modelling approach," Haldane says. "It became something of a methodological monoculture [that] was not well equipped for dealing with economies or financial systems close to, or at, breaking point."

Haldane, too, thinks things are changing, if slowly. "My sense is that we're now set on a somewhat different course technically. And over time, little by little, ever so gradually, that will improve matters."

Earle, of the Post-Crash Society, says the student movement is gaining influence, even if change is more timid than he would like. The overarching goal, he says, is to wean economics off the idea that it has found "the one true way". True neoclassical believers, he says — deftly reversing the criticism of heterodox economists as charlatans — act "like astronomers before Galileo". In the end, economics education needs to become "more pluralist, more critical, more liberal", he says: more an exploration of ideas, and less a training in the economic priesthood.