

Rethinking Economics

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Over the last five years, the field of economics has undergone a reconsideration of its role in society. With the exception of a select few (Rajan, 2005), most economists were blindsided by the housing crash in 2007 and subsequent financial meltdown. In 2003, Nobel Laureate Robert Lucas claimed that the “central problem of depression prevention has been solved,” echoing Irving Fisher’s pronouncement that “stock prices have reached what looks like a permanently high plateau” in October 1929. Even though the recent recession was not nearly as bad as the Great Depression, it was a sharp blow to the field of macroeconomics. Far from the arrogance that had characterized the field during the previous two decades, economist Paul Krugman tackled the question “How Did Economists Get It So Wrong?” during late 2009 in a *New York Times Magazine* story.

This undertaking has included a rethinking of the undergraduate economics curriculum, led by Wendy Carlin at University College London and Diane Coyle of Enlightenment Economics. Additionally, students have begun to take important roles in the debate. In April, the student-run Post-Crash Economics Society (PCES) at the University of Manchester published a report titled *Economics, Education and Unlearning*, which provided a critique of economics education in the UK and at Manchester in particular. However, as the report points out, “the problems ... are

certainly not limited to Manchester and are in fact international in scale” (PCES, 13).

The PCES report is undoubtedly timely and makes a host of excellent recommendations. In particular, it is clear that a more cohesive economics curriculum should include study of the ethics, history, philosophy and politics of economics in conjunction with economic theory and empirical methods. Additionally, there should be increased emphasis on the scrutiny and questioning of the basic assumptions made. However, it falls short on two crucial aspects: the suggestion that economics cannot be a scientific discipline and the driving recommendation of the report for a move towards “pluralism” in the discipline. This essay will focus on these two issues and argue that they are fundamentally misguided.

The Status of Economics as a Science

Almost in passing, the PCES report boldly states “Economics cannot be a science in the normal sense of the word” (PCES, 27). However, it is never made clear what exactly a science “in the normal sense of the word” is. Ignoring the vague wording, this claim is justified by the observation that economics deals with people. In particular, this implies three truths that prevent economics from ever being scientific (PCES, 27):

1. Repeated experiments are not possible.

2. The object under study will interact with the observer.
3. Conscious actions — whether of policymakers or economic agents themselves — are involved, and these actions will affect the action of others, making moral questions inescapable.

This is the only justification provided in the entire report for this claim, which is taken as true during later analysis. However, upon further scrutiny, these three observations have little to do with whether or not a discipline is scientific. We analyze them in turn.

Repeated experiments are not possible.

To begin, it will be useful to define two different types of experimentation. We will refer to experimentation in which the scientist himself sets up the experiment and records the result as *active experimentation*, e.g. lab science. We will refer to experimentation in which the scientist uses data that has already been collected and runs statistical tests on it as *passive experimentation*.¹

Clearly, passive experimentation is possible in economics. Additionally, such experiments can be repeated by changing the population and time period of interest. Moreover, as economic data is constantly collected, the opportunity for novel experiments arises frequently. However, one might argue that

passive experimentation does not constitute actual experimentation. Even accepting this narrow viewpoint, it is still false to claim that economists cannot run repeated experiments. Experimental and behavioral economics, robust subfields of the discipline, have done extensive work in the laboratory (see Kagel & Roth, 1995; Altman, 2006).

Further, it is abundantly clear that the inability to run repeated experiments does not preclude a discipline from being scientific. Take astrophysics as an example. Those studying the universe are not able to repeat the creation of stars, nebulas and galaxies in controlled experiments. The discipline makes progress by using what observational capabilities we have to deduce properties of the universe. One would be silly to claim that astrophysics, championed by the likes of Albert Einstein, does not constitute a scientific enterprise simply because it cannot run repeated experiments.

The object under study will interact with the observer

On face, it is difficult to see how this does not pervade all of the sciences. To run an active experiment necessitates that the scientist manipulates the object under study and the conditions it is in, which certainly constitutes a meaningful interaction. However, it can be plausibly argued that the impact a microbiologist has on the cells he or she is studying is negligible compared to the changes in human behavior that

occur solely in the experimental economist's laboratory.

Accepting that problematic interaction occurs in every discipline to some extent, we can place each discipline on a spectrum of how troublesome this interaction is. Then, the claim under consideration becomes the argument that economics lies on the far end of this scale, with severe object-observer interaction plaguing the field's conclusions. However, no matter where the dismal science lies, it is certain that quantum physics lies further down the scale. During the birth of quantum mechanics in the early 20th century, physicists performed experiments that had results that seemed to defy logic (Albert, 1994). Out of this experience came an understanding of the measurement problem (Albert 1994, 79 qtd. in Krips):

The dynamics and the postulate of collapse are flatly in contradiction with one another ... the postulate of collapse seems to be right about what happens when we make measurements, and the dynamics seems to be bizarrely wrong about what happens when we make measurements, and yet the dynamics seems to be right about what happens whenever we aren't making measurements.

The reason for such a contradiction, as the collapse postulate implies, is that the act of measuring a quantum systems alters the state of that system in an unpredictable manner. Clearly, this problem is much worse than

that experienced in economics, yet surely one would not claim that quantum physics isn't a scientific enterprise.

Conscious actions ... are involved ... making moral questions inescapable.

It is fairly obvious that moral questions are involved in economics. What is less obvious is why this implies that it is non-scientific. Ethical questions are present in almost every scientific discipline. Most students entering into the world of professional science are required to take some sort of ethics module because of this. However, it certainly can be argued that moral questions appear more often in economics.

That being said, it would be silly to claim that these questions are most prevalent in economics. Bioethics, a subfield of Ethical Theory, arose solely to study and answer the inescapable moral questions of biology and medical science. Those disciplines don't cease to be scientific because of this; rather, they incorporate moral insights into their work in order to ensure ethical behavior. In a similar fashion, there is a substantial amount of literature in the philosophy of economics attempting to fulfill a similar role (see Hausman 2007).

The Feasibility of Pluralism

Now that we have established that it is possible for

economics to be a scientific discipline, we will define economics as a science of human behavior in the economic domain (Coyle 2014).² Given this framework, we can now analyze the PCES call for "pluralism" in economics. In general, this suggestion is that economics should be an eclectic discipline, utilizing several approaches to attempt to understand economic behavior. This contrasts with the *status quo*, in which the field is dominated by "neoclassical economics" defined (again, quite vaguely) by the PCES as "an approach where individual agents seek to optimize their preferences under exogenously imposed constraints" (PCES 14). While the idea of pluralism is not developed fully in the PCES report, it is divided into three separate components in an open letter titled "An international student call for pluralism in economics" from the International Student Initiative for Pluralism in Economics (ISIPE): theoretical, methodological and interdisciplinary.³ We address these in reverse order.

Interdisciplinary

Interdisciplinary pluralism simply requires that an economics education "should include interdisciplinary approaches and allow students to engage with other social sciences and the humanities" (ISIPE Open Letter). Interdisciplinary work is undoubtedly important, and has proven to be useful throughout all of the sciences. However, interdisciplinary work requires that

cohesive disciplines exist to be synthesized; academia without disciplinary structure would be incredibly difficult to navigate. Thus, this type of pluralism is both entirely consistent with economics as a unified science and entirely necessary.

Methodological

Methodological pluralism requires both a broadening of the methodology used by economists as well as a more critical attitude towards the use of quantitative methods. The latter suggestion is undoubtedly a good idea; it is quite silly to continue to use a particular methodological approach without questioning and understanding why it is a good approach to use. And often times undergraduate economics courses neglect this healthy criticism in a race to cover as much theory as possible. However, this questioning is still consistent with neoclassical economics dominating the field.

The former suggestion is also probably a wise idea. In particular, the use of qualitative methods to include cultural and institutional differences in economic analyses, as suggested in the ISIPE letter, would certainly improve policy prescriptions. That being said, it is unclear why this is at odds with neoclassical economics and further, why the ISIPE considers this a change.

One of the fundamental problems with the pluralist movement is that it mistakenly identifies macroeconomic theory as the whole of economic theory. After all, the PCES was formed in

light of macroeconomic troubles in the rich world; no corresponding society was formed in the aftermath of the International Monetary Fund's (IMF) mishandling of several international debt crises in the developing world.⁴ There are already robust regional economic analyses, within the neoclassical framework, which utilize more qualitative methods to understand economic phenomena. Take, for example, the work of MIT economist Daron Acemoglu on the importance of institutions for economic growth (Acemoglu & Robinson 2012). Further, as Diane Coyle notes, there is no mention of the recent success in applied microeconomics (Coyle 2014). These considerations make clear that neoclassical economics, broadly construed, largely meets the requirements of methodological pluralism.

Theoretical

Theoretical pluralism requires a broadening of "the range of schools of thought represented in the curricula" (ISIPE Open Letter). In addition to the neoclassical economic theory currently taught, the letter suggests that alternative theories such as "classical, post-Keynesian, institutional, ecological, feminist, Marxist and Austrian" economic theory should be included (ISIPE Open Letter). However, this suggestion only serves to undermine the proponents of theoretical pluralism. Much of the argumentation in the PCES report

and ISIPE open letter criticizes the economics community for suppressing meaningful debate and failing to consider alternative, heterodox viewpoints.

However, as Diane Coyle points out, the identification of pluralism with heterodox economic theories is misguided (Coyle 2014):

The [PCES] report also mistakenly equates pluralism with the specific views of heterodox economics, rather than the open-minded willingness to analyse economic issues from a range of alternative perspectives (including heterodox ones).

Open debate is one of the keys to scientific progress, but this debate must take place amongst peers who largely abide by the same theoretical commitments to be fruitful. For example, debate within the macrobiology community over the details of evolutionary theory is quite useful, while argument between a "mainstream" biologist and a creation scientist does not lead to a better understanding of the natural world.

This is an area where the ISIPE is clearly mistaken; they claim that "other disciplines embrace diversity and teach competing theories even when they are mutually incompatible" (ISIPE Open Letter). However, for scientific disciplines, this claim is markedly false. Any self-respecting biology department would never teach creation science as a competing theory to evolution. This is because biologists all accept the theoretical

underpinnings of evolution and have reason (namely carbon dating) to not hold creation science as a competing theory. However, this same condition holds for many forms of heterodox economics. Take classical economic theory, for example.

This was the dominant paradigm of economic thought before it was replaced by Keynesian economics in the 1930's and 1940's. The main reason for this transition was that Classical theory had no way of explaining the massive unemployment that characterized the Great Depression. When asked for advice on how to alleviate the ailing economy, leading theorists suggested that perhaps if people were better educated in economic theory, they would be able to behave in a way that prevented such situations. In the midst of this, Keynes writes his *General Theory*, which provides a more universal account of economic activity, including both classical theory as a special case as well as an explanation of periods with elevated unemployment. And thus the paradigm shift to Keynesian economics was under way.

Further, theoretical pluralism has dreadful ramifications for economic policy. Imagine a Council of Economic Advisors containing a handful of economists that prescribe to neoclassical theory while the other few are Austrians.⁵ Fiscal policy would be quite hard to coordinate, given the complete disagreement within the Council on the decision to take action, let alone what type

of action. For instance, following the most recent recession, which started in 2008, the US government authorized the purchase of troubled assets and enacted fiscal stimuli, most likely at the recommendation of neoclassical economists. However, to an Austrian economist, such policies represent exactly what not to do, as they actually exacerbate the severity of a recession.⁶

On the other hand, perhaps a truly dedicated Council could manage to come to an agreement on such matters. Regardless, it is certainly worth considering what kind of disagreement would occur in our fictional Council. Clearly, simply communicating certain ideas would be difficult as scientific discussion is usually steeped in jargon. Additionally, this jargon

would be not be shared since all parties study economics. Argument over the details of Newtonian mechanics is void of words like “spin” and “superposition” which are key concepts in Quantum Mechanics, even though both paradigms aim to explain the same physical phenomena. The situation would undoubtedly be similar in the case of differing economic paradigms.

And even if this language barrier could be hurdled, the resulting discussion would amount to no more than a series of claims with no way of weighting them. Since different economic paradigms, by definition, make differing fundamental assumptions, theoretical arguments for Austrian policy would make little sense to a neoclassical economist, as they disagree over first principles.⁷ In a

similar manner, different paradigms have differing empirical methodologies, implying differing standards as to what constitutes evidence. Thus, in the same way that no amount of empirical confirmations of teleology would convince a particle physicist that Aristotle was right, empirical evidence gathered by a neoclassical economist would probably carry little weight in the Council’s discussion.⁸

It is important to note that even in light of these shortcomings, there is a real need for reform in field of economics, and the PCES report highlights a couple of excellent suggestions for reform. However, it is vital that these reforms only move us in the right direction.

¹ This is admittedly not a complete nor rigorous categorization; however, it will be useful to refer to and adequate for the purposes of this essay.

² Admittedly, the positive claim that economics is a science does not follow from a refutation of the negative claim that economics cannot be scientific. However, as it is almost impossible to continue without a working definition, we will continue with this general description of economics.

³ We stray from the PCES report here only because the concept of pluralism is better defined in the ISIPE open letter; however, this analysis still holds as a general response to the argumentation spelled out in the PCES report.

⁴ In fact, the response from within the professional economic community was successful in reshaping the IMF’s

research agenda and approach to acting as a lender of last resort.

⁵ Clearly, the situation would get more hectic with more theoretical commitments; we analyze the case of only two conflicting paradigms.

⁶ See Rothbard’s *America’s Great Depression* for an exposition on Austrian policy recommendations in response to a recession.

⁷ This is what Thomas Kuhn refers to as the “incommensurability of paradigms.” (Kuhn *The Scientific Structure of Scientific Revolutions*)

⁸ Considered the first Western theory of physics, teleology espoused (among other claims) that physical objects themselves wanted to return to their natural state. Thus, by repeatedly throwing a rock and watching it fall to the earth, one could find many empirical “confirmations” of teleology.

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