Philosophy of Economics for Those Who Don't Expect It (Yet Still Have to Take It)

N. Emrah Aydinonat
University of Helsinki
https://orcid.org/0000-0001-6633-4044

Jack Vromen
Erasmus University Rotterdam
https://orcid.org/0000-0002-8002-4226

Abstract

Teaching a compulsory, large-scale Philosophy of Economics (PoE) course to economics students presents distinct challenges. Instructors face a heterogeneous student body with varying levels of interest in the topics, diverse occupational goals and a limited philosophical background. Unlike elective courses, for which students self-select based on interest, a compulsory course entails motivating disengaged students and managing their expectations. We put forward the case for a student-oriented approach to teaching PoE, emphasising four key strategies: recognising students' limited philosophical knowledge, demonstrating the relevance of PoE to their professional and personal lives, using real-world problems to engage them and avoiding the oversimplification of topics. We argue that PoE instruction should account for the distinct characteristics of economics students, moving beyond a supply-driven approach. Our suggestions aim to enhance student engagement and provide practical guidance for instructors navigating the challenges of teaching PoE at scale.

1 Introduction

Philosophy of economics (PoE) courses are seldom mandatory in university economics departments. We firmly believe that undergraduate economics students would benefit significantly from a compulsory PoE course, and it is likely that most philosophers of economics would support this view. We do not discuss how we justify our belief in this chapter, but rather focus on how such a course should be approached and designed. Although it is unlikely that PoE courses will become compulsory in many places in the near future, addressing the challenges associated with teaching a large and diverse group of economics

students could also benefit elective courses on a smaller scale. Moreover, and as an added benefit, addressing these challenges could help to establish PoE courses as a standard component of economics education.

What, then, are the challenges inherent in teaching a compulsory, large-scale PoE course in an economics department? First, compared to smaller-scale specialised elective courses, a compulsory course will have a larger scale and a more diverse group of students. That is, its instructors will face a large heterogeneous group of students with a diverse set of occupational goals and aspirations, and varied levels of interest in economics, their main subject of study. Second, teaching at a larger scale, instructors will also need to pay more attention to student expectations set by the conventions of the economics department, concerning assessment methods, attendance and textbook use, for example. Third, since elective courses filter out students who have no interest in the topic, instructors in larger scale compulsory courses are faced with more students who – at least initially – may show no or very little interest in PoE and related topics. Fourth, and relatedly, some students, likely a significant portion of them, will lack the philosophical background necessary to engage with traditional approaches to the philosophy of science and PoE. As a result, instructors will face additional challenges concerning motivating students, managing their expectations and bridging their knowledge gap in philosophy, not to mention the other challenges relate to the increase in scale, such as difficulties in engaging a large number of students in philosophical reflection and assessing their success.

In this chapter we discuss a general strategy to overcome these challenges.[1] We argue that large-scale compulsory PoE courses should accommodate the diversity of the student body, and we advocate a student-oriented approach. Section 2 starts with a discussion of the 'making-better-scientists' argument for philosophy of science (PoS) teaching. We argue that although this is a sensible argument it is not entirely satisfactory in the case of PoE, since economics students will likely include those who do not aim to become economists qua scientists. We then briefly discuss an approach that is not likely to work well: the supply-driven approach to PoE teaching, which takes the research output in the PoE and the broader PoS literature (the supply) as input and selects the topics and how they are to be taught based solely on this input.

Next, we discuss the obvious alternative, the student-oriented approach, by asking the following question: is it possible to motivate most economics students to learn PoE while simultaneously keeping the genuinely interested students engaged? Because our alternative

requires considering the students' points of view and their composition, we discuss some of the characteristics and peculiarities of economics education and economics students along the way. We make four suggestions for PoE teaching and explain them. (1) Know your audience and be aware of the fact that a significant proportion of economics students might have no or a very weak background in philosophy. This suggestion is particularly important given that PoE courses critically discuss the assumptions of mainstream approaches, which economics students are likely to perceive as overly critical as they rely on them without questioning them in their other courses. (2) Show that PoE is useful for students in their personal and professional lives as economists, as employees of private firms and public institutions, and as citizen consumers of economics. (3) Use real-world problems and ethical issues that relate to public policy and business life to motivate the discussion of PoE topics. (4) Do not water down or oversimplify the topics.

Following our seemingly simple suggestions require some rethinking of how PoE topics are taught in economics departments, and how textbooks and research articles on economic methodology and the philosophy of economics should be used in teaching. We hope that our suggestions will be useful to those who are teaching PoE and trying to find solutions to the challenges we outlined above.

2 Making better economists?

The fact that instructors teaching PoS courses to non-philosophy students encounter common challenges naturally sets the stage for a discussion on teaching PoE. Grüne-Yanoff (2014) emphasises the scepticism of scientists and science students as a significant obstacle, and argues that to overcome it a case needs to be made for "why PoS is important for training scientists" (p. 116). He contends that PoS training provides scientists with a "better understanding" of science and "a greater capacity of critical reflection" (p. 120). Recognising that these generic skills might not be convincing, he adds, PoS education "also directly contributes to the proper functioning of scientists" (p. 121). The core of Grüne-Yanoff's argument is that "teaching philosophy of science to science students makes them better scientists" (p. 123). This would be a powerful argument if all science students were aiming to become scientists. We doubt that this is the case, but we will not continue this general argument here and rather focus on the case of economics students. Even though everyone with an economics degree could be called an economist,[2] not all economics students work as economists *qua* scientists, or perform the tasks of an economist in their jobs. Not all economics

students aim at becoming academic or non-academic economists either; some rather pursuing a diverse set of occupational goals in both the private and the public sector. Only some of them become academic researchers, or are employed in jobs where they work as economists. For example, in the U.S. many economics graduates are employed in "in top- and midlevel management positions, accounting and financial specialties, and sales" and very few pursue PhD in economics (Black et al. 2003, p. 398; see also Siegfried and Raymond 1984). Many students choose to study economics to be able to find good jobs in the private or public sector. Many of these jobs do not require being an economist *qua* scientist, or having a thorough knowledge of economic theory, but they do demand the ability to use some of the analytical skills and tools (e.g., data analysis) that an economics education provides. Thus, we think that a strategy based on the making-better-scientists argument could only have partial success, and will not convince students who do not pursue a career as a researcher or an applied economist of the usefulness of PoE.

A safer assumption about economics students is that they will all become users or *consumers* of economics knowledge in one way or another. So, if not all students aspire to become *producers* of economics knowledge, how should one teach them PoE topics? Luckily for the instructors of PoE courses, given the pervasiveness of economics in shaping almost every sphere of our lives through policy making, the argument can easily be made that PoE education helps in making students not only better producers ("scientists"), but also users and consumers of economics knowledge. In other words, as we discuss in more detail below, convincing learners that PoE is potentially useful is a vital task for course instructors, especially if they are facing students with a diverse set of occupational goals. As we noted earlier, however, students are also diverse in terms of their motivation to learn about PoE, and merely stating that it is useful for them will not be enough. Demonstrations of its usefulness should take the students' perspectives into account to enable this message to be received and appreciated by as many as possible. This demonstration, we think, should be an integral part of PoE teaching.

3 A supply-driven approach

Before we elaborate on our suggestions for teaching PoE to economics students, let us consider what will *not* work: *a supply-driven approach* that primarily aims at transmitting research-based insights in the field. An important presumption of this approach is that students are, or at least should be, interested in learning about such insights, thereby assigning little responsibility to the instructor if they do not pay attention, or fail. Perhaps, an accompanying

premise is that an enthusiastic teaching style would be sufficient to motivate disinterested students. This premise allows for concessions for undergraduate students with respect to the level of sophistication they can handle, but assumes that not much else has to be done in terms of how topics are introduced to properly motivate and engage them. Although the enthusiasm of the instructor goes a long way, it will be insufficient when faced with a diverse set of students including many who are not motivated or interested in learning what researchers have to say on the PoE.

Students in a class tend to have a diverse set of occupational goals and, perhaps more importantly, they differ in terms of their motivation to learn the topics covered, which will very likely be the case in a compulsory PoE course. The literature on university teaching portrays the diversity that instructors face using caricatures of two student types, namely deep learners who are intrinsically motivated to learn (*DLs*) and surface learners with no such intrinsic motivation (*SLs*): the latter focus only on passing the course, preferably using minimal effort (e.g., memorising the material or learning just enough to pass). It is argued in this literature that many instructors *wrongly* call DLs "good students" and SLs "bad students" (Biggs 2011, 2012).[3] Accordingly, a significant aim in university pedagogy courses is to teach prospective instructors how to engage SLs and take them at least to the level of learning that DLs achieve naturally. This is based on the finding that what we call the supply-driven approach cannot succeed in a mixed class of *DL*s and *SL*s.

Biggs (2011) distinguishes three levels of teaching competence. Level 1 instructors focus on *what* they teach and Level 2 on *how* they teach, but -- just as in the supply-driven approach -- neither of them considers the students' perspectives or what the student *does* to learn. Biggs therefore argues that these approaches fail to help *SL*s get to the level of *DL*s. In the case of a compulsory PoE for economics students, adopting these approaches would mean leaving a significant proportion of students behind. This cannot be a good strategy. Good teaching, which is Level 3 teaching in Biggs's terminology, requires focusing on what students do, and paying particular attention to their perspectives and needs (Biggs 2011). The basic idea is that, faced with a mixed class of SLs and DLs, instructors cannot succeed by merely focusing on transferring knowledge. They rather need to tailor the teaching to the needs of the students, motivating and encouraging them to engage in deep learning. Given the diversity of economics students that PoE instructors are likely to face, we agree with this strategy. On the understanding that the instructors will have access to courses in and books on university pedagogy, we devote the rest of this chapter to discussing possible ways of developing a

student-oriented approach in PoE teaching, leaving aside issues including assessment, feedback and constructive alignment (i.e., aligning course activities and outcomes).

There are two broad types of courses to which our suggestions could be relevant, namely those covering Economic Methodology (EM) and, more broadly, Philosophy of Economics (PoE).[4] A course in EM could be considered a PoS course specialised in economics, whereas PoE covers a broader research area that includes EM as well as topics ranging from decision theory and rationality to distributive justice and the moral limits of markets. Several excellent books are available that could be used in teaching these courses to economics students (e.g., Boumans and Davis 2016, Hands 2001, Maas 2014, Reiss 2013 and Ross 2014). All of them cover EM and PoE topics based on the best available research in a selective and sometimes opinionated (e.g., Reiss 2013, Ross 2014) manner. They were written with different audiences in mind. For example, whereas Boumans and Davis (2016) have an audience with little knowledge of economics or philosophy, Hands (2001) targets economists and assumes that readers know enough about economics but relatively little economic methodology. Following any of these books chapter by chapter without consideration of the composition and the needs of the students would be an example of the supply-driven approach, and would run the risk of using the wrong material for the given audience. A quick glance at the available syllabi of EM and PoE courses (see Aydinonat 2011) reveals a preference for a reading-based approach that does not rely heavily on textbooks. We do not know whether these syllabi were prepared with the composition and needs of the students in mind, or how they are taught in class. What we do know is this: if instructors merely list the topics and readings they wish to discuss without due consideration of their audience and on the assumption that students are responsible for receiving what will be transferred in class, this is a risky supply-driven strategy. It could work, sometimes perfectly, among students on elective courses who are genuinely interested in PoE topics. However, the chances of success would be lower in large compulsory classes that are likely to include a significant group of students who have neither an interest in PoE topics nor the necessary background knowledge. Given that the existing institutional structure and organisation of economics departments do not motivate students to invest their time in philosophy and history of economics courses, as PoE instructors we should be thinking more about how we can help economics students to develop an interest in PoE.

4 A student-oriented approach

Unlike the supply-driven approach, a student-oriented approach starts with a consideration of the addressees or audience. In the case of teaching PoE to a large economics class, it takes into account the fact that a considerable proportion of students will start out with no interest in being taught such a course. It suggests that targeted attempts should be made to motivate them. This *does not* mean that instructors should agree to cover whatever the students find appealing and act in accordance with their level of ambition in learning PoE. What it does mean is that they should consider the students' perspectives and background knowledge if they are to bring their ambition up to the required level. This *know-your-audience* suggestion applies in particular to philosophers who will be giving service courses in economics departments.

For the student-oriented approach to work, instructors must design and teach their course "by building on what students already know", and put effort into correcting their misconceptions (Biggs 2011, p. 27). Building on what students know requires consideration of what they do not know: the fact that many economics students *do not know* much about philosophy should be taken into account. Because of their limited background knowledge they might have misconceptions about PoE courses, which are often perceived as being too critical of economics.

Biggs (2011) points out that students will also be motivated if they can expect success. Thus, a course design including assessment tasks must be clear in communicating what needs to be done to be successful. This is particularly important in teaching PoE to economics students who are used to assignments and exams in which there is one correct answer to a given question. Given that this is often not the case in philosophy courses, what needs to be done to be successful has to be clearly communicated to these students. This point nicely connects with the one made above: to convey the value of PoE topics instructors also need to convey the value of philosophical thinking to students who have no or little training in philosophy. In sum, our first suggestion from a student-oriented perspective is this: *know your audience and be aware of the fact that a significant proportion of your students might have very little or no training in philosophy.*

The student-oriented approach does not dismiss students with no or little interest in the course topics (*SLs*) as "bad students". On the contrary, the task of the instructor is to arouse interest in as many of them as possible. The good news is that, even if some (likely many) economics students are not initially interested in PoE, this does not mean that they will not eventually develop a genuine interest in the subject. Again, to motivate them the instructor needs to

convince them of the value of PoE given their goals and aspirations. The second suggestion from a student-oriented perspective is thus: *show that PoE is useful to them*.

How can we show the value of PoE to students with very little or no education in philosophy? What needs to be done relates to two other suggestions from university pedagogy. Instructors need to "explicitly bring out the structure of the topic or subject" and "elicit an active response from students, e.g. by questioning, presenting problems for them to solve" (Biggs 2011, 35). Suppose that you are planning to teach the Deductive-Nomological Model of Explanation (D-N model) to a class of economics students. How can you elicit an active response from them? Approaching the topic as one could do in a PoS course for philosophy students is not likely to be successful (Grüne-Yanoff 2014), as many economics students would not see the relevance of the D-N model and its counter-examples for their studies. An alternative strategy would be to start with a question or an *explanandum* from economics with which the students are familiar. One could, for example, start with a question such as the following: "Why does the price of a good fall when there is an increase in supply?" Give them a particular example such as the increase in the global supply of solar panels in 2022, and they will easily explain why the price must fall using the supply-demand model. It would then be a straightforward exercise for them to represent this explanation as a deductive argument using the laws of supply and demand, the market-equilibrium condition, and the particular details of the example chosen. Next, the instructor could ask a series of questions such as "Is it a good explanation?", or "Could it serve as a model of a good explanation?" to start discussing the D-N model as a *model* of an ideal scientific explanation. This could be followed by more focused questions about *their* objections to the D-N model as a model of explanation in economics, thereby setting the stage for the discussion on the objections to the D-N model and other ways to approach explanation. The same example could be used in discussions covering many related topics throughout the course. Could the use of the supply-demand model in this explanation be better conceived of as a causal explanation (e.g., using Hausman 1990), for example? Are there are laws in economics (e.g., using Kincaid 2004)? What is the point of using ceteris paribus clauses (e.g., using Jhun 2018)? Can idealised models such as the supply-demand model really explain anything (perhaps with the addition of other examples such as the Hotelling model as discussed in Reiss 2012)? The point is that the discussion should show how the D-N model, or any other topic, relates to what the students already know, and should provoke some reaction from them. Ideally, it should build on dialogues with students about the examples used.

Going beyond this specific point, we could ask how we might increase the general appetite for PoE. Would it be possible to develop a more general strategy such as the one described above for the whole course, for example? We argue that it would: in brief, instructors have the best chance of achieving these goals in economics classes if they position standard PoE topics in relation to economics-related questions, real-world economic problems, and ethical issues concerning economics and markets. Hence, our third suggestion: *use real-world problems and ethical issues that relate to business life and public policy to motivate the discussion of PoE topics.*

Finally, while all this is happening it is necessary to keep already motivated students (*DLs*) engaged. Our suggestion for achieving this is simple: *do not water down or oversimplify the topics while trying to reach out to disinterested students*. In what follows, we explain our suggestions in more detail.

5 Know your audience

As a start, the learning goals in a PoE course should be clearly justified given the audience, and the teaching content should be supplemented with familiar examples from the relevant discipline (Grüne-Yanoff 2014, p. 129-130). It would not suffice to use the usual toy examples in discussions of philosophical concepts and models, for instance: what are needed are clearly formulated examples from economics. Knowing your audience also requires consideration of what the students do not know. As with science students (Grüne-Yanoff 2014), students of economics are likely to have had very little or no education in philosophy. Students of economics and of philosophy acquire similar skills in analytical thinking, but there is a major difference in how they engage in critical thinking. The former tend to engage in inside-the-box critical thinking (Siegfried & Colander 2021), which involves using the provided tools and models to think critically *about a problem* without questioning the given tools and models. Philosophy students, on the other hand, learn to deal with radically opposing points of view on a given topic almost from day one. They learn to deconstruct and analyse arguments, and to think simultaneously from the perspective of the advocate and the critic. They also learn to think outside of the box (Siegfried & Colander 2021). Given that most PoE courses will require at least some thinking outside the box, teachers need to take this difference into account and appropriately motivate a change in mindset.

We also agree with Grüne-Yanoff (2014) that instructors should avoid certain habits that are common among philosophers. For example, they may focus more on criticism and counterexamples than on the usefulness and benefits of philosophical concepts and tools. Introducing a philosophical idea or model and then providing compelling evidence that it is faulty could leave many economics (and other non-philosophy) students puzzled. Instructors should also give some historical context when introducing new philosophical ideas, models or concepts, clearly explaining to students why they were developed in the first place, and how relevant they are currently. Not only is it common to discuss contested models, ideas and concepts in PoE courses, it is also important to justify the inclusion of abandoned philosophical models, ideas, and concepts in the syllabus in relation to the relevant discipline. For instance, and to follow up on the example we provided earlier, about the D-N model one could say, "by discussing the objections to the D-N model we will have a better understanding of what a good explanation in economics need to entail".

The lack of education in philosophy among economics students is also worth considering in terms of student perceptions. Typical of many PoE courses is a deeper discussion covering criticisms of commonly taught assumptions in economics. One example concerns the epistemic value of unrealistic assumptions in the discipline, often accompanied by criticism directed toward the mainstream way of doing economics. Moreover, unlike philosophers of physics or biology, philosophers of economics tend to express their doubts and criticism concerning the science they are studying, namely economics; they are more likely to have a negative opinion on the success of economics as a science. Given that many economics students are unfamiliar with PoE territory, it is important that they do not perceive it as hostile. Another potential problem is that economics students might perceive a PoE course merely as criticism of what they are learning in their other courses: if their first impression is that criticism is inherently negative, rather than constructive and necessary in fostering further improvement and expansion in their thinking, it will undermine the success of teaching. If instructors convey ideas and insights from PoE without a proper introduction and context, they risk putting off the students and disengaging them from the very start. The upshot, of course, is *not* that critical material should be excluded from the curriculum so as to avoid puzzlement among students. In fact, such puzzlement and confusion could spark some interest in the topic. What instructors need to consider very carefully relates to the students' perspectives and background knowledge. What is required is a balanced approach that shows both the value and limits of economic models and economists' tools.

Instructors may face additional challenges other than those we have outlined above. For example, in addition to lacking knowledge of philosophy, the students might also lack knowledge of economics. Boumans and Davis refer to this in the Introduction of their textbook.

> "Most of these students had completed at most only a small number of economics courses, and thus the challenge has been to teach both basic philosophy of science and economic methodology to individuals who are only just beginning to consider the role of explanation in economics." (Boumans & Davis 2016, p. 6)

On the other hand, some classes might have a mix of students with varying levels of knowledge of philosophy or economics. Finding out what they do and do not know as well as discovering these additional obstacles is part of knowing your audience. Such knowledge is a prerequisite in designing a student-oriented course.

6 Show them that PoE is useful

Not all economics students will become producers of economic knowledge, but they will all become consumers and users of economic knowledge, and representatives of the profession in different ways. How, then, could they be motivated to engage fully with a PoE course? We think that the best way is to show that it will be useful for them in their professional and personal lives. In other words, we should make it clear to our students that it is in their personal interest to engage with PoE and to learn something from it.

Not all economics students aim to become researchers, but they do expect to learn things in their studies—such as economic concepts, theories and models, and skills—that will be useful in their future occupations. Thus, knowing that a PoE course will give them a sense of when and in what situations an economic concept, theory or model is useful will make it appealing. It should therefore be made clear from the start that the course aims include helping them to form their own views on the strengths, applicability and limitations of economic theories and models.

Students will also be more motivated to form their own views on existing critiques of economics if they are assured that they will be confronted with and challenged by these "outside" perspectives later in their careers, whether they be in business, government service, Academia, or anywhere else. As employees they will be working with (and sometimes managing) others, including non-economists. This is one reason why it makes sense for them to prepare for being confronted with "outside" perspectives and understand how non-

economists perceive economics and economists. They should be made aware from the outset that PoE would put economics into perspective, and part of this process is to learn about these "outside" perspectives. More generally, a PoE course should call upon economics students "to take a step back", to reflect on their own discipline, and engage in outside-the-box critical thinking.

Our personal preference for an introductory course in PoE is to focus mainly and explicitly on improving the out-of-the-box critical thinking skills of economics students. Other instructors might prefer to delve deeper into the debates in the philosophy of economics, and even to educate students to become philosophers of economics. Obviously, the goals of the instructor should be reflected in the design of the course. However, we believe that it is equally important to demonstrate the value of out-of-the box thinking, and to show how a course in PoE could help in this respect even if it was not the instructor's main goal.

It should be made clear to students who wish to become good economists (whatever that might mean) that such an aspiration entails not only being drawn in, internalising "how to think as an economist", but also some "zooming out", being able to take a distance from their own "trade". More explicitly, they should be made aware that the PoE course aims include instilling some "open-mindedness" in them as a healthy antidote to prematurely closing off their minds in a particular economic mind-set (Vromen 2014).

Explaining how a PoE course could help with the transition to out-of-the box thinking would also be helpful. Critical thinking as such helps students to connect what they know to societal issues in a new light. For example, they learn in economics courses that incentives matter, and that incentive-based policies often work. They also learn to consider policy problems based on simple models such as the supply-demand model. In the absence of any reflection, they might end up believing that monetary incentives and model-based policy suggestions *always* work even though, as any good economist will confirm, they do not; they work *under certain conditions* (see e.g., Rodrik 2015). Students on a PoE course could be invited to reflect on such insights in practical contexts they are likely to confront. Do pay-for-performance programmes always increase the productivity of employees in the workplace? Could monetary incentives be used to increase blood donations? Does increasing the minimum wage do more harm than good? Questions such as these and the appropriate counterexamples to what they believe (e.g., showing that monetary incentives could crowd out intrinsic incentives[5]), might convince them of the usefulness of seeing the scope and limits of model-based thinking and model-based

policy arguments. As a bonus, one could also argue that this broader perspective will help them in their other courses because it will give them a deeper understanding of the theories, models and tools.

Related to this, PoE courses could equip students with the necessary practical skills to improve their economics literacy, which is instrumental to becoming responsible citizens. To develop informed, politically relevant opinions they should be capable of distinguishing good, sound and relevant economic arguments from those that are bad, bogus and irrelevant. This requires some elementary skills in informal logic and argumentation, which we believe should be covered in PoE courses, and the usefulness of this toolset in practical contexts should be demonstrated to students (see Aydinonat 2024).

Knowing the value of out-of-the box thinking and the benefits of PoE should also appeal to economics students who are already intrinsically motivated to learn PoE: they will be reassured that the subject is interesting and worthwhile, which might strengthen their engagement in it, and even encourage them to consider attending follow-up courses in PoE (and philosophy in general).

7 Motivate students using real-world problems and ethics-based arguments

It is perhaps no exaggeration to suggest that economics students are trained to consider the desirability of states of affairs in terms of efficiency (see, e.g., Fehr et al. 2006). Whether it be individual or social decision-making (e.g., on how to evaluate different policy proposals), the issue addressed is almost always how best to make use of available means in order to satisfy given ends. This becomes second nature after a while, and economics students cannot think of other standards that could reasonably be invoked to evaluate states of affairs. What they tend to be unaware of is that many non-economists are baffled by, and loathe, economists' "obsession" with efficiency. Is it the only or supreme value in life? Why are other values and concerns, such as fairness, justice, freedom and equality, not as relevant as efficiency in evaluating policies and states of affairs? An effective way of motivating economics students – especially those who have doubts about the usefulness of a PoE course -- is to start with a discussion of such questions and ethical issues.[6] This gives them a broader perspective from which the topics discussed start to make more sense. It also gives them some idea of why it matters to understand the scope and limits of the models and tools that economists use. For example, if these students are first made aware of how many economists have understood the

First Fundamental Theorem in Welfare Economics as vindicating Adam Smith's 'invisible hand' view on the social efficiency of competitive markets, they would be better able to appreciate the need for a better understanding of the role of idealising assumptions and their implications. Moreover, a discussion of the Second Fundamental Theorem might encourage them to ponder upon other considerations that could be relevant and appropriate in deciding what policy outcomes are the most desirable. We believe that it is useful to enrich the discussion of examples that pertain to "grand theory," as in the case of welfare theorems, with some real-world examples. There are many opinion pieces on economic policy that refer to the concept of the invisible hand, or the welfare theorems, that instructors could use to make the discussion more interesting.

Another example that could help to awaken student interest in a PoE course is the minimum wage controversy (Deaton 2023). The received view among economists on introducing minimum wages has long been that it would cause unemployment. The underlying reasoning is taught in the standard textbook Econ 101: if a binding minimum wage is set above the equilibrium wage, the quantity of labour supplied will increase but the quantity of labour demanded will decrease. In other words, the quantity of labour supplied will exceed the quantity demanded, resulting in unemployment. Thus understood, it is just the application of the "Law of Supply and Demand" in the theory of competitive markets to the labour market. Card and Krueger (1994) cast doubt on this "conventional wisdom", comparing what happened in 1992 to employment levels in the adjacent states of New Jersey and Pennsylvania when the minimum wage was raised only in New Jersey. They found that the effect on the employment level in New Jersey did not differ markedly from that in Pennsylvania. Even though the relevance of studies like this are now widely appreciated among economists (in 2021 Card was awarded a Nobel prize for his work), many were initially sceptical. Indeed, some prominent scholars even ridiculed those who put any faith in the Card and Krueger study (e.g., Buchanan 1996, Miller 1996): how could any sensible person believe such nonsense?

The minimum-wage controversy, possibly enriched by a policy debate from recent news stories, provides an appropriate starting point in that it raises several questions and issues to be discussed in greater depth and detail, and on a more abstract level, throughout the course. For example, the controversy could be used as a basis from which to ask questions concerning the role of simplified models in policy making, or the extent to which society should rely on agreement among economists at a given time about important policy issues. Such questions facilitate the introduction of issues ranging from the limits of Econ 101 models in policy

contexts to the role of experts in societal decision-making. Another question concerns the role of evidence in economics and policy making. What weight should be assigned to empirical evidence if it seems to contravene standard, and supposedly cogent economic thinking? How should one evaluate evidence that goes against "conventional wisdom"? Should one put more faith in contravening empirical evidence only if there is a plausible theory or model to explain it? For instance, with respect to this last question one could discuss alternative explanations of Card and Krueger's findings, asking how could introducing (or raising) minimum wages possibly increase rather than decrease employment. One explanation, which is hinted at in Card and Krueger's study, is that labour markets might be monopsonic rather than competitive. They are monopsonic if firms have the power to keep wages low (possibly lower than market-clearing equilibrium wages) without their employees running away to other, better paying firms. Employees might not leave firms that pay low wages for the simple reason that they have limited opportunities to find other, better paid work. Raising minimum wages does not necessarily result in higher unemployment in such monopsonic markets. The discussion on this and other explanations of the evidence could be used to draw attention not only to the fact that the prevailing market structure might matter a lot, but also to the diversity of theories and models in economics—in this case, of imperfect competition. Last but not least, given that the effects of minimum-wage laws are not uniform across all labour groups, the controversy could also serve as a good starting point for a discussion on the trade-offs in policy making, the role of value judgements in the making of economic policy, and issues concerning fairness and distributive justice.

The minimum-wage controversy is one of the many examples instructors could use to increase the appetite of students for PoE topics. Others include the economics of Covid-19 (e.g., the apparent trade-off between health and economic growth, and societal goals other than economic efficiency); the Washington Consensus (e.g., following Rodrik (2009) concerning the success of economic recipes derived directly from standard models and the role of models and evidence in policy making); and the World Bank memorandum (*The New York Times*, 1992, February 7) on the advantages of encouraging more migration of dirty industries to the least developed countries (following Hausman, McPherson and Satz (2017, Chapter 2), to discuss a range of issues in welfare economics and ethics).

Of course, these examples might not appeal to all students, particularly those who see their degree solely as a ticket to well-paying jobs and are more interested in the payoff for their future careers. It is therefore worthwhile introducing some aspects of business ethics in the

course. Possible topics for discussion include whether markets discourage and erode moral behaviour, matters concerning corporate social responsibility and the stakeholder approach to controversial cases such as registering a company in a different country for tax reasons. In the last case, students could be asked to put themselves in the positions of different stakeholders and to consider the case from different perspectives. This type of training in perspective-taking helps them to see the implications of economics in a new light, and to develop an interest in understanding more about the nature and scope of economics as a science.

It is worth pointing out that these discussions and activities may be new to economics students, who are not trained or encouraged to engage in such practices in regular courses. It is often claimed that there is no time left for these things, not least because the time available for teaching is already insufficient in terms of ensuring that students acquire all the necessary skills in fields such as maths, statistics and econometrics. It clearly takes quite some time to master these skills, but other skills are no less important, especially for the majority of economics students who are not aiming for a career in Academia. The use of practically relevant examples and activities in introducing new PoE skills shows students that it is equally important *for them* to be capable of out-of-the box critical thinking and relating to other, "outside" perspectives. As we have argued, the best way to do this is to use ethical issues that relate to business life and public policy to motivate discussion about PoE. This suggestion is also in line with recent developments in PoS that emphasise human values and interests in science and science-society relations.

8 Do not oversimplify

A student-oriented approach to PoE does not imply that course topics should be watered down or oversimplified. On the contrary, students should be encouraged to achieve higher levels of accuracy, nuance and sophistication. First, it is not only wrong, but also counterproductive to underestimate the abilities of initially uninterested students. Most of those who are sceptical about a PoE course for understandable reasons will have the necessary capabilities to develop a sophisticated understanding of the subject. Furthermore, signalling to students that the instructor does not have a high opinion of their capabilities will not motivate them to do better: on the contrary, it is more likely to be counterproductive. Thus, it is better to start from the assumption that students, if properly motivated, can handle the topics with the required level of sophistication. Second, oversimplifying topics will disengage students with the highest level of interest. They will feel unchallenged and disappointed if no attempts are made to elevate the

discussions and thereby make them more accurate and more sophisticated. Finally, and obviously, the ultimate aim of the course is to deepen the students' understanding of the course topics, and not to get all of them to like it. It is not necessarily a bad thing if in the end they do not like it very much because they feel it is quite demanding. Convincing them that they need to work hard to get a pass grade could help them to take the course seriously, but they will only perceive this as fair if they understand its relevance and usefulness in the first place. This, of course, is exactly why a supply-driven approach should give way to a student-oriented approach.

9 Conclusion

In this short article we have advocated a student-oriented approach, and explained how to apply this to PoE courses for economics departments. We did not discuss one obvious obstacle: economics departments tend not to be so enthusiastic about offering PoE courses to their students. Given the benefits of these courses we see this as an unfortunate state of affairs. We believe that the best strategy to convince economists about the benefits of PoE education is exactly the same: show the value of these courses from a student-oriented perspective. We also believe that adopting such a perspective in currently available courses will facilitate the propagation of PoE courses in economics departments. We hope that this short essay will pave the way for a deeper discussion of PoE teaching.

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11 Endnotes

[1] We have experience of teaching a large-scale compulsory PoE course on the undergraduate level, as well as smaller-scale more specialised courses. Naturally, some of our suggestions are based on our experience.

[2] In The Netherlands, for example, everyone with a Master’s degree from an economics department is referred to as an economist.

[3] On surface and deep learners, see Marton & Säljö (1976). The distinction between intrinsic and extrinsic motivation in university pedagogy is based on Deci and Ryan (2000). On the correlations between intrinsic motivation and deep learning, and extrinsic motivation and surface learning, see Walker et al. (2006).

[4] For a list of online EM and PoE course syllabi, see Aydinonat (2021).

[5] For an overview, see Bowles (2016).

[6] Grüne-Yanoff (2014) also argues that PoS education should address ethical aspects of scientific research, which he thinks will produce better scientists. We argue that the introduction of ethics is also required to make students better users and consumers of science.