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# A defense of reasonable pluralism in economics

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## ABSTRACT

This article aims to defend a novel account of pluralism in economics. First, it argues that what justifies pluralism is its epistemological benefits. Second, it acknowledges that pluralism has limits, and defends *reasonable pluralism*, or the view that we should only accept those theories and methods that can be justified by their communities with reasons that other communities can accept. Clearly, reasonable pluralism is an ideal, which requires economists of different persuasions to respect certain norms of communication while evaluating each other's theories. The article ends with a discussion of the conditions under which reasonable communication becomes possible.

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Pluralism; freedom of expression; relativism; schools of thought

## 1. Introduction

Following the 2008 financial crisis, several economists, as well as many commentators and journalists, have blamed economics for its failure to explain the causes and foresee the consequences of the financial breakdown (e.g. Fullbrook, 2008; Keen, 2011). Their core target was the perceived acceptance by most economists of a single theoretical framework: neo-classical economics. As an alternative, an increasing number of scholars have argued for pluralism in economics, or the view that there are several legitimate ways of doing economics (Fullbrook, 2008; Garnett et al., 2010). This article has two main aims. The first is to inquire what justifies pluralism in economics. The second is to determine whether pluralism has limits, and what they might be.

The first part of this article tackles the first question. It reviews some of the key arguments in the debate and argues that they suffer from several limitations. It then offers an alternative defense of pluralism. Based on an analysis of several examples of interactions between competing economic theories and methods, I shall argue that what justifies pluralism is its epistemological benefits. By continuously pushing economists to refine their theories, by challenging their accepted worldviews and by bringing about new facts and new problems to solve, pluralism can significantly improve the state of economics.

While many authors have sought to justify pluralism, few attempted to define its scope. Should pluralism have any limit? One core fear, especially for mainstream theorists, is that pluralism will swiftly lead to relativism, that this, to a state of the discipline in which any kind of theories and methods would be considered as equally valid (e.g. Tirole, 2019). The fear is that economics would, therefore, lose its scientific status and its credibility to the public.

The second part of this article aims to demonstrate that pluralism has limits and that relativism can thus be avoided. I argue for *reasonable pluralism*, or the view that a theory (or method) can

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be included within the pluralist realm if there is a community of economists that share this theory and if this community is able to provide a justification for its choice that is acceptable to other communities. I show that adequate justifications must appeal to reasons that economists of a particular community have for choosing to practice economics in a certain way, that is, some common epistemic values, such as rigor, consistency, commitment to truth, etc. (Kuhn, 1977; Longino, 2004).

Reasonable pluralism takes its name partly from its insistence that a plurality of theories can be justified to others by appealing to adequate reasons, and partly from the assumption that economists of different persuasions will be open to reasonable discussion. In other words, reasonable pluralism depicts an ideal, which may be quite distant, or detached, from the current state of the struggle between economists of different persuasions. The last part of the paper considers two challenges to this view: the lack of common quality standards between different theories and the problem of communication between antagonistic theorists (Gräbner & Strunk, 2020). I defend reasonable pluralism against these challenges and argue that pluralism has few chances of success without minimal agreement on common norms of communication and evaluation among economists. I conclude with a discussion of some of the normative implications of this view, related to tolerance and equal standing among competing economic theories and methods.

## 2. Why pluralism?

### 2.1. Definitions

Following Mäki (1997, pp. 38–39), we may define pluralism of X (in economics) as the normative view that a plurality of X's is justified (See also Longino, 2004, p. 130). Mäki (1997, p. 38) lists several possible pluralities that one may cherish: plurality of worlds, of truths, of theories, of methods, of meanings, of questions, of values, of ideologies, etc. This paper has a relatively narrow focus and is concerned only with justifying a plurality of theories and of methods. Theories refer to sets of well-structured and consistent explanatory claims, informed by a diversity of core assumptions, that aim to make sense of the world around us (or parts of it). Methods are the qualitative and quantitative tools that economists may use for testing their theories.

Restricting oneself to pluralism of theories and methods stems from a series of reasons. First, I suspect that other arguments may be required to defend pluralism in other respects. Whether there is a plurality of worlds or of truths may be a concern for metaphysics and epistemology but falls beyond the scope of this paper. Similarly, I shall not discuss pluralism of values and ideologies, which is at the center of an important, yet different, literature on normativity in economics (e.g. Colander & Su, 2015). Second, as we shall see below, several other authors have also attempted to defend, or criticize, pluralism understood in that way (e.g. Gräbner & Strunk, 2020). Finally, I believe that having their theories and methods recognized as legitimate, and supported by a large audience, is what most economists (orthodox or heterodox) strive for. What, then, might justify pluralism so understood?

### 2.2. Complexity and cognitive limitations

This sub-section reviews and criticizes two influential arguments for pluralism in economics: (1) the 'complexity' argument, and (2) the 'cognitive limitations' argument. This analysis will help to understand my own defense of pluralism.

First, some authors have argued that the complexity of the social world justifies pluralism (Gräbner, 2017; King, 2008). There exist at least two versions of the argument. Both start from the premise that the complexity of the social world is impossible to model using one single theory. One version of the argument is that a complete representation can be achieved only by a plurality of theories (King, 2008; see Longino, 2004 for a review of similar claims) and that making (complete) sense of reality requires pluralism.

A problem with that view is that developing a plurality of theories and methods in parallel may amount to a waste of time and energy, and may divert economists from improving their current knowledge of the world. Consequently, one could argue that the complex nature of the world actually requires scientists to invest all their energy in one theory, because focusing on one theory constitutes a more efficient way to improve our knowledge through the collective effort of economists. In short, the ontological claim that the world is complex does not necessarily entail the epistemological claim that it is better explained by a plurality of theories. Therefore, if we want to justify pluralism, something more than complexity is required.

A second group of pluralists have sensed that necessity. Gräbner (2017), for instance, starts from the premise that the world is complex and argues that there may be many different ways of representing that complexity. His key claim, however, is that there is no consensus on the 'right' theoretical representation. It is thus better to tolerate a plurality of theories and of methods in order to avoid what Gräbner calls an 'intellectual lock-in', that is, a situation in which the dominance of a single theory curtails scientific progress by barring new ideas and research questions. My argument will proceed from the same intuitions and expand Gräbner's conclusions. Beforehand, let me consider another influential defense of pluralism in economics.

Some heterodox economists have attempted to justify pluralism with a second, related argument (see Van Bouwel, 2005). They argue that the economist's mind is cognitively limited. The mind of isolated economists cannot master all of economic reality, nor summarize all information, nor see all relevant facts. Therefore, a plurality of views is required.

I agree that human cognitive abilities are limited. One may have doubts, though, that pluralism may help us improve these cognitive abilities. On the contrary, pluralism might require increased cognitive effort on the part of each individual scientist, because pluralists cannot benefit from a unified framework that 'cognitively-limited' scientists can then use without having to bother with complicated methodological decisions. As Kuhn has argued, unification reduces the cognitive effort of scientists by providing ready-made answers to important methodological questions (Kuhn, 1962/1970). Mainstream economics benefits a lot from (what may be called) low methodological uncertainty, for the basic theoretical tools at the disposal of economists are well-defined and well-entrenched in economics department (Rodrik, 2015). By contrast, pluralism might raise the number of methodological decisions that individual scientists should make and increase uncertainty concerning the scientific legitimacy of these decisions. How can anyone be sure to be using the right method or theory, when there is a large set of competing theories and methods?

The complexity of the world and the cognitive limitations of the economists' minds may thus not be enough to justify pluralism. One single theory might be better able to make sense of the world, and a unified methodology might allow scientists to concentrate their effort on improving the current state of knowledge, without having to bother with annoying methodological decisions. If this is true, however, the problem remains: which theory should we choose, among the plurality of candidates? As Gräbner (2017) rightly argues, economists and economic methodologists alike have failed to provide a definitive answer to that question, which remains entirely open.

So far, then, this discussion has highlighted several challenges for pluralism. In particular, pluralists should show that pluralism would indeed improve scientific knowledge. Many pluralists have argued that pluralism had significant 'epistemological benefits', as Gräbner and Strunk (2020) put it (see also Fullbrook, 2008; Garnett et al., 2010). However, this is an empirical claim that requires empirical work. We can aim to prove (or disprove) it only by having a look at some areas of economics and by showing that pluralism enhances (or curtails) knowledge in these areas. As Davis (2019) puts it, any normative defense of pluralism requires to delve significantly into the actual diversity of economics: 'normative pluralism' requires 'descriptive pluralism' (Davis, 2019, p. 17).

This paper is only a modest attempt to make these benefits more apparent and it will not draw a complete picture of the field. I shall discuss several examples (drawn from the interactions between ecological economics, neo-classical growth theory, and different forms of Marxism) that, I hope, will illustrate how pluralism brings about important epistemological benefits. This task is of utmost

importance because, as we have seen, these benefits are not obvious. On the contrary, pluralism could increase methodological uncertainty, as there would be more competing theories and methods. It could also lead the economics community to redistribute its energy to a (possibly large) plurality of research projects, instead of focusing on one (or a small number of) shared and well-defined research programs.<sup>1</sup> Pluralists should show that the gains of pluralism more than outweigh these potential losses.

### 2.3. Justifying pluralism

What, then, justifies pluralism? I would like to propose an argument that does not rely on controversial views on complexity and cognitive capacity. This argument is analogous to Mill's defense of freedom of expression (See also Marqués & Weisman, 2010, pp. 78–80). Even if I shall depart from Mill's theory on many points, the structure of my argument is similar to Mill's, and discussing briefly his theory might be helpful to understand my own. Mill (1859/1974, p. 76) argues that

the peculiar evil of silencing the expression of an opinion is that it is robbing the human race, posterity as well as the existing generation – those who dissent from the opinion, still more than those who hold it. If the opinion is right, they are deprived of the opportunity of exchanging error for truth; if wrong, they lose, what is almost as great a benefit, the clearer perception and livelier impression of truth produced by its collision with error.

My own defense of pluralism, even if it has a different purpose, has a similar shape. Analogously to Mill, I shall first assume that it makes sense to talk about the truth about our one world (Mäki, 1997). Second, I shall argue that, in economics, as well as in other disciplines, we may doubt that existing theories and methods are able to correctly portray and explain that one world. I shall take that doubt seriously and show that pluralism is justified whether or not we happen to know the 'correct' theory, or whether or not there could even be a 'correct' theory. The argument proceeds in two steps.

First, I will assume that we do not currently have a 'good' or 'correct' theory. Then, similarly to Mill, I shall argue that it would be wrong to ignore competing theories, for ignoring them would deprive us of the 'opportunity of exchanging error for truth'. Second, I will show that, even if we happen to know the 'correct' theory, it would be unwise to ignore competing theories, for they could help us refine the established scientific practice. By assuming in turn the inexistence and then the existence of 'correct' theories and methods, this approach attempts to give full credit to our initial doubt. It also aims at convincing both those who deny their existence and those who strongly believe in it, that pluralism is justified.

Following Mäki (1997, p. 42), let us first assume that economics is presently in a state of 'radical epistemic uncertainty', that is, assume that it 'falls short of the demands that economists are expected to fulfil' (Mäki, 1997, p. 43). Mäki does not say much about the source of that uncertainty. Pluralists may be right that its origin lies in the complexity of the world, or in the cognitive limitations of economists, which prevent them from finding out which theory is the 'best one'. However, as I showed above, complexity and cognitive limitations are not enough to make the case for pluralism. What we need to show is that, when we assume epistemic uncertainty, pluralism leads to a beneficial growth of knowledge. Note that Mäki's definition of epistemic uncertainty is somewhat ambiguous. On one interpretation, it may entail that we have at hand a list of what a 'good' economic theory should do, but have so far failed to design a theory that fulfils all of these requirements. Alternatively, we might not have such a list, or there might be a plurality of such lists, and no theories fulfilling all of them. In the following paragraphs, I shall argue that, in either case, it is preferable to allow for a variety of theories and methods, for this will help us to progress towards better theories and methods.

As an example, one could take the recent debate between some proponents of ecological economics and economists who subscribe to mainstream growth theory. Ecological economics is built on the premise that standard growth theory fails to consider properly the natural limits to growth (Daly, 2013; Spash, 2012). In an exchange with neo-classical economists, Daly (1997), for instance, claims

that neo-classical growth models either do not consider natural resources at all or, if they do, simply assume that other technological factors can be substituted for them, a claim that Daly and others forcefully oppose (Ayres, 2007; Daly, 2013). The reply of neo-classical theorists has not been to deny these facts, even if they tend to consider that natural constraints on economic processes are not as binding as Daly thinks (Solow, 1997). Rather, their response refers to methodological differences between their models and Daly's. Stiglitz (1997, p. 269) writes that:

[Our disagreement] arises from a lack of understanding of the role of the kind of analytic models that we (and others) have formulated. They are intended to help us answer questions like, for the intermediate run – for the next 50–60 years, is it possible that growth can be sustained? What does this possibility entail? We write down models as if they extend out to infinity, but no one takes these limits seriously.

Solow's reply follows the same line. He writes: 'the role of theory is to explore what logic and simple assumptions can tell us about what data to look for and how to interpret them in connection with the question asked' (Solow, 1997, p. 268).

Let us suppose, as I have done until now, that we do not know which method (Daly's ecological economics or Solow/Stiglitz's neo-classical growth models) is the 'good' one. As Kitcher (1990), among others, has argued, having both flourishing side by side ensures that, at least, not everyone delves into error. Moreover, the existence of an opponent may force each theorist to adapt his models to respond to external criticisms. Solow (1997, p. 268), for instance, urges Daly to make use of 'precise statements, best cast (I think) in the form of transparent models' while Stiglitz (1997, p. 269) acknowledges that 'Daly is right to be concerned about our society's use of resources' and that models need to take these facts into account.

What if one side has it right, though? Let us now suppose (for the sake of the argument) that we do have the good theory that fulfils plainly all scientific requirements. I argue that this is nevertheless not a sufficient reason to ignore competing theories or methods. For these alternative theories may help us refine the established scientific theory. As Longino (2004, p. 138) argues, it is still valuable to exhaust all possible alternatives so as to be sure to settle on the correct theory.<sup>2</sup>

One of the most beneficial consequences of pluralism is that the existence of competing theories may force established practitioners to solve new problems, which heterodox theorists claim mainstream theorists fail to explain. In the example above, one may argue that, even if Daly is wrong, neo-classical growth theory can benefit from his criticisms. Ecological economics has brought to light the problems of natural scarcity and substitutability. This is a valuable contribution, which growth theory cannot ignore, even if it comes from a different methodological perspective. This contribution remains valuable even if attempts to model these facts without making use of the toolbox of neo-classical economics have failed, as Solow and Stiglitz seem to think. Indeed, the existence of an active and critical community of researchers sharing Daly's insights should make it quite difficult for growth theory to ignore these facts. Even if not all neo-classical economists take the limits to growth into consideration, there is a growing awareness that these matter.<sup>3</sup>

Let me take another example. Suppose we agree that methodological individualism is the 'good' method for the social sciences, including economics. Methodological individualism is the view that 'all social phenomena (their structure and their change) are in principle explicable only in terms of individuals – their properties, goals, beliefs' (Elster, 1982, p. 453). Does it follow that we should ignore theories that reject that core methodological assumption? No. Competing theories may nevertheless have a fruitful role to play. They may be useful if they lead economists to study questions and problems that they would not have studied otherwise. For instance, the fact that Marx's work is filled with Hegelian thoughts has not prevented Analytical Marxists, such as Roemer (1982) or Elster (1985), from analyzing his work with the tools of rational choice theory. Marx might have erred in many ways, and both Roemer and Elster agree on this. Nevertheless, analyzing his theory has allowed the development of a rich and fruitful literature, which may not share all of Marx's methodological or normative commitments, but that may not have come into existence without Marx either (For a similar conclusion, see Elster, 2011a).<sup>4</sup>

Therefore, whether we assume that economics is in a state of epistemic uncertainty or whether we suppose that some theories are superior to others, pluralism is justified. The main benefit of pluralism is that, by challenging accepted worldviews and by bringing about new questions, new facts and new problems to solve, it continuously pushes competing economists to refine their theories.

Note that this argument has some important features. First, it is humble. It remains agnostic on whether the current mainstream body of theories is the 'good' one and does not commit to any strong view on what separates 'good' economics from 'bad' economics (though I will have more to say about this in the next section). Second, it is also tolerant and is a priori open to a very large number of competing theories (Garnett, 2006). Third, it may appeal both to those who have a strongly entrenched view of what economics ought to be and to those who remain uncertain about it. In short, to the former, it says: 'pluralism will lead us closer to the correct theory, because even "bad" theories can help us to refine "good" ones'. For instance, those who think that the Marxism of Marx is resting on shaky methodological foundations, and that rational choice is the proper way to go, should welcome the rejuvenation of Marxism undertaken by Roemer, Elster and other analytical Marxists as a move towards better theorizing. To the sceptics, it says: 'pluralism will lead us away from error, thanks to competition between different theories and methods'. The debates and interactions between neo-classical and ecological theorists provide one example of the potential epistemological gains that pluralism can produce.

These three features signal that my argument rests on somewhat ideal conditions. Pluralism may only produce benefits if economists of different persuasions accept to view the theories and methods of others as worthy of consideration and as potential sources of inspiration, even if they have strong methodological disagreements. I will not try to defend this assumption here and will leave it for section 4, where I discuss objections to this ideal.

Should we, therefore, tolerate any theory and method? Certainly not. After all, my argument is only an instrumental defense of pluralism: pluralism is justified only if it can lead us away from error and closer to truth, as Mill would put it. On that view, one necessary condition for a theory to be justified is that it is able to participate to that critical process. Therefore, the fact that pluralism is justified does not entail that any theory or method is justified. Though it might be impossible to design a perfect selection criterion, the next section is an attempt in that direction. It discusses several ways to restrain the set of acceptable theories and methods.

### 3. What pluralism?

This section argues that pluralism can only incorporate a limited set of theories and methods, namely, those that can be justified with adequate reasons. Several pluralist economists have also argued that pluralism has limits, but few have indicated where they might lie. For instance, Dow (2004, p. 287) claims that 'the range of methodological approaches to economics (...) is not infinite' and argues that the limits of pluralism are set by the actually existing variety of schools of thought. However, she voluntarily refrains from providing a 'selection' criterion that could tell us which schools of thoughts are justified, for she thinks that we lack a 'universally valid philosophy of science' that could do so (Dow, 2004, p. 277).

I agree that there is no such universally accepted method. Still, I think that it is possible to set non-arbitrary limits to pluralism. In his later work, Kuhn has argued that certain epistemic values could be used to characterize 'good' science (Kuhn, 1977). These values will form the basis for my own theory of reasonable pluralism. Beforehand, it may be necessary to discuss why we need to restrict pluralism. Indeed, the argument of the previous section seems to suggest that any theory may contribute to the progress of economics, whether or not we actually possess a definition of what constitutes a 'good' theory. If that argument is valid, why should there be any limits to pluralism?

First, as I briefly argued above, not all theories or methods can be expected to contribute to progress. Some selection criteria are needed to make sure that the theories that are accepted could at least produce some epistemological benefits. Moreover, one core fear of many mainstream theorists

is that pluralism would quickly lead to relativism, that is, to a state of the discipline in which any kind of theories and methods would be considered as equally valid, without any possible quality checks (Backhouse, 1998; Tirole, 2019). Their worry is that relativism makes it impossible to construct a common ground to evaluate different theories and that, therefore, relativism threatens the scientific status of economics. This, in turn, would weaken the public perception of economics as a science (Tirole, 2019, p. 76). The worry is that, if a large number of competing theories were considered as equally valid, politicians and decision makers would cease to take any of them seriously.

Several authors have argued that relativism is not a real threat for pluralists (See Gräbner & Strunk, 2020 for a discussion of their arguments). Caldwell (1988, p. 237), for instance, stresses that tradition and well-organized scientific communities regulate how economics is done and restrict what economists can do. Nevertheless, I think that Tirole's worries should be a concern for pluralists. The mere existence of scientific communities and of a shared tradition may not offer sufficient protection against relativism. What needs to be shown, and what I will attempt to argue in this section, is that these communities can find agreement on what constitute 'adequate' economics, despite their divergences.

In the remaining of this paper, I shall propose some criteria to limit the scope of pluralism. Along with Kuhn's epistemic values, Longino's (1990, 2002) insistence on good standards of criticism will constitute the backbone of my argument. The main idea is that, even if it may be impossible to define what constitutes 'good' economic theories or methods, it can nevertheless be possible to make a distinction between those that are justified and those that are not. Based on this idea, I shall argue that there is a common ground on which we can evaluate competing theories. Pluralism need not lead to relativism and does not threaten the scientific status or the public voice of economics.

There are limits to pluralism. These limits pertain to the justification that economists can offer in defense of their choice of method or theory. More specifically, I argue that an economic method or theory is justified (that is, can be included within the pluralist scientific realm) if it fulfils two conditions. (1) First, there should be a community of practitioners sharing this method/theory. (2) Second, this community should be able to defend its methodological choices with reasons that are acceptable to other communities. As will become increasingly clear, reasonable pluralism thus relies on an ideal background of justification, that is, on the assumption that economists of different persuasions will be able to find common ground to communicate with each other and evaluate each other's theories.

I will define a community as a group of economists whose theories and methods commit to the same core assumptions (see Caldwell, 1988; Dow, 2004, pp. 277–280). The existence of a community has been generally praised for enabling internal peer criticism, or what Longino (2004, p. 134) calls 'narrow criticism', which is an important and uncontroversial condition of scientific rigor and a first check on pluralism (see also Borgerson, 2011; Longino, 1990, 2002). Inclusion into a community also provides each individual economist with a reassuring environment, made of well-entrenched methodological principles and shared beliefs about the world and the meaning of concepts (Dow, 2004, p. 288). Contrary to what some of its opponents might think, pluralism need not plunge economists into uncertainty. Within their community, they may make use of a unified framework and do not necessarily need to bother with complicated methodological decisions. Nevertheless, they should acknowledge that this might not be the only framework, and that other competing theories are also acceptable (De Langhe, 2010). So scientific communities have a double role to play. First, by stimulating internal criticism, they provide a first check on pluralism. Second, by providing a stable methodological framework for researchers, they can also help guarantee that the work of their members satisfies some standards of rigor and produces epistemological benefits of a kind that is well-regarded within the community.

This is not enough, though. Each community should also be able to justify its choice of methods and theories with reasons that are acceptable to other communities, under the assumption that each community is open to listen to these justifications and accepts them as potentially compelling.

Let me start with reasons that will most probably not be accepted by others. First, as discussed above, different communities may not be able to agree on common requirements for identifying a 'good' theory. Even if they do, they may not agree that any existing theory actually satisfies these requirements. Therefore, appeal to such requirements cannot count as an acceptable reason. Second, the fact that a certain theory or method happens to be dominant within universities and research centers is not, in itself, a reason to believe that it is justified (Caldwell, 1982, pp. 286–287). The domination of the mainstream is a regular source of complaint for heterodox economists. For instance, Hodgson et al. (1992) argue that neo-classical economists frequently 'enforce a monopoly of method or core assumptions, often defended on no better ground than it constitutes the mainstream'. Explicit justifications of this monopoly from mainstream theorists are harder to find, for most of them usually take it for granted (Colander, 2010). Yet, several prominent neo-classical economists have praised the 'primacy' of their discipline over other social sciences (Demsetz, 1997; Lazear, 2000) and sociologists have described the self-confidence and feeling of 'superiority' of the economics profession (Fourcade et al., 2015). Nevertheless, its current dominant position is not sufficient to show that neo-classical theory is justified. What should matter instead is that these economists have been convinced by adequate reasons.

Adequate reasons are of a specific kind. They cannot appeal to the specific content of a theory or a method, or to its underlying core assumptions. For economists belonging to different schools of thought usually disagree on specific theoretical or methodological assumptions. For instance, ecological economics and standard growth theory do not depart from the same set of assumptions concerning the substitutability of natural services. Yet, as we have seen, at least some members of each community consider that their opponent is worth talking to.

In my view, the existence of these debates shows that agreement is possible if members of each scientific community appeal to the 'epistemic values' that motivate the choice of this theory or method. For Kuhn (1977), who originated the concept, these values characterize all 'good' scientific theories. Kuhn (1977, p. 357) originally listed five such values (accuracy, consistency, simplicity, fruitfulness and broadness of scope) but wrote that the list is probably longer than that.<sup>5</sup> He also acknowledged that there may be conflicts between these values (simplicity may restrict the scope of a theory, for instance). His point was that different theorists may diverge on a number of important issues, but generally all share the same dedication to these epistemic values.

The shared acceptance of these values makes pluralism possible. Different economic communities, with different methods and theories, can justify their approaches by appealing to them. And each should recognize others as legitimate if they abide by (some of) these values. For instance, ecological economists should recognize that standard growth theory is relatively simple, that it explains a certain number of relevant facts, that it abides by certain shared standards of rigor, and that there are internal debates within the theory on some of its specific shortcomings. Similarly, neoclassical growth theorists should acknowledge, like Stiglitz (1997, p. 269), that ecological economics has been a fruitful endeavor, because it has made sure that some key facts about natural resources and natural processes can no longer be ignored. Even if each community may prioritize different values, all should acknowledge that the other's choice of theory and method is properly motivated by adequate epistemic values, and thus legitimate.

In this ideal context of communication, I assume that the economists taking part in the discussion will agree to listen and talk to each other and accept to consider another theory or method as legitimate if its proponents provide a satisfactory justification for it. My view is that pluralism cannot succeed without some minimal agreement between competing views and without some minimal norms of communication. In the next section, I will defend this ideal against a number of objections and argue that it is achievable.

Before defending this view, let me stress that appealing to epistemic values has several beneficial consequences. First, in the absence of consensus on what constitutes 'good' economics, appeal to some shared epistemic values is a minimal guarantee that one does not disregard important standards altogether. As I have briefly attempted to show, ecological economics and neo-classical

growth theory are very likely to pass this test. Other theories or methods may probably not pass it. Elster (2011b), for instance, opposes the post-modern literature<sup>6</sup> because it denies that there is anything like 'truth' and it maintains that the validity of scientific statements is ultimately a question of political power. If Elster is right, that theory will most probably not pass the test. Ideally, a debate ought to take place among practitioners about the epistemic values that sustain post-modernism. If Elster's evaluation is right, one can doubt that their proponents will be able to convince other communities that their methods abide by standard epistemic values such as those defended by Kuhn. My argument is thus able to avoid the charge of relativism. It may reassure those, like Tirole, who fear that pluralism would threaten economics' status as a science or weaken the economists' public status, for only those theories that respect a certain accepted standard of science are justified.

Second, the list of epistemic values is sufficiently broad and can thus justify much more theories or methods than what some mainstream theorists believe to be justified. Some defenders of the mainstream have claimed that neo-classical economics is already pluralist enough and that there is no need for a greater plurality of theories and methods (e.g. De Vroey & Penserioso, 2018). They argue that neo-classical theory comprises many different and sometimes conflicting theories, such as game theory (and its derivatives), public choice theory, industrial organization, social choice theory, labor economics, behavioral economics, etc. However, appeal to epistemic values can justify many more non-mainstream theories, including many that are not part of the standard curriculum of economists, such as Austrian economics, Marxist economics, or post-Keynesian economics.

Third, appealing to epistemic values may also strengthen my argument that pluralism is justified by its tendency to produce epistemological benefits. Appeal to these values is clearly not a guarantee that one will do a 'good job' or produce significant epistemological benefits. Yet, the need to justify one's theory or method may lead to improvements: if economists of different persuasions should prove in a discussion with their peers that what they do is in line with certain epistemic values, this may motivate them to improve their methods. Conversely, those who disregard (most of) these values will most probably be those that are unable to produce any epistemological benefits. Rejecting these approaches for lack of a proper justification may thus result in abandoning unproductive theories or methods (see my discussion of post-modernism above).

Therefore, neither the claim that economics is already sufficiently pluralist, nor the worry that pluralism could lead to relativism, are justified. In between these two extremes, I argue for reasonable pluralism, or the view that we should only accept those theories and methods that can be justified by their communities with reasons that other communities can accept. As should now be clear, the capacity to justify a theory or method depends on the existence of adequate scientific dialogue among communities. As Longino (2002) argues, only those communities that follow certain norms of communication may count as adequate participants in the pluralist debate (see also Borgerson, 2011). To this first requirement, which I will discuss more in detail in section 4, my own account adds that different and competing communities of economists need to be able to defend their choice of theory and method with reasons that can be accepted by other communities. These reasons go beyond mere communication requirements. They appeal to a limited but possibly large list of epistemic values. In this ideal setting, the final decision on whether a theory or method is justified should thus emerge from reasonable discussions between economists of all persuasions.<sup>7</sup>

#### 4. Common standards of quality, and communication

The argument so far has assumed rather ideal conditions. Specifically, it presupposes that economists from different schools of thought will be ready to listen and talk to each other and will accept to recognize as legitimate theories or methods with which they may profoundly disagree. These assumptions are not unusual in the literature (Kitcher, 2011; Longino, 1990, 2002), and are actually necessary for my argument. As I have argued above, and as Intemann and de Melo-Martín (2014) make clear, allowing for a diversity of dissenting views may be valuable only if shared norms of mutual criticism and shared standard of evaluation exist among scientists of different persuasions.

However, one may have doubts about the plausibility of these assumptions. As Gräbner and Strunk (2020) have argued, pluralism faces two main challenges. First, one can wonder whether economists will agree on a common set of epistemic values. In the absence of an agreement on what constitutes ‘good’ economics, will there be a common standard of evaluation? Second, one could also wonder whether economists will accept to listen and to talk to each other. Can communication succeed? This section seeks a way to respond to these serious challenges and argues for a form of reasonable dialogue between schools of thought.

#### 4.1. Common standards of quality

The quest for a common standard of evaluation faces at least two problems. The first problem is that economists might disagree on the relative importance of each of these epistemic values. Some theorists may give more weight to certain values than to others. For example, Solow, in the excerpt cited above, gives priority to clarity and analytical rigor, while Daly seems to value primarily correspondence with some key facts. He stresses that there are empirical limits to growth and that technology alone is unable to tackle negative externalities (Daly, 2013). Another example of methodological dispute is discussed by De Vroey (2016), who argues that a large part of the debate between Keynesians and Lucasians in macroeconomics refers to methodological disputes on the importance of micro-foundations and internal consistency.

I do not think that these methodological disagreements constitute a big trouble for pluralists. As I have tried to show in the previous sections, methodological disagreements can be fruitful. For instance, neo-classical growth theory and ecological economics both have contributed to explaining certain key economic and social facts. Moreover, different theories may be justified by appeal to different values, as far as each community of economists acknowledges that these values constitute adequate justifications. Some theories may be justified by appealing primarily to rigor, others by appealing primarily to accuracy or fruitfulness.

The second problem is that different theorists may understand the same value differently, because they share different core assumptions (Intemann & de Melo-Martín, 2014, p. 2758). For instance, ‘rigor’ may take a different meaning for those who regard methodological individualism as the only rigorous way to model human behavior (e.g. Elster, 1982), and for those who reject it or think it is utterly insufficient (e.g. Spash, 2012). I have two replies to this objection.

First, if they cannot agree on the meaning of one term (say, rigor), economists from different schools of thought can then turn to another value, which is not subject to interpretative disagreements, in order to justify their approach. As I argued in response to the first objection, different theories can be justified by different values. However, this reply is only partly satisfactory, for two competing theories may have a completely different understanding of every single existing value. My second reply is then the following. Even if the term ‘rigor’ (or any other value) may take several meanings for different communities, the point of my argument for reasonable pluralism is that each community should be able to convince others that its view of rigor (or another value) justifies its specific theory or method. One’s theory may be justified by ‘X-rigor’ and another by ‘Y-rigor’. If other communities accept ‘X-rigor’ as a legitimate epistemic value, even if they prefer their own ‘Y-rigor’, the fact that different people interpret the meaning of a term differently is no longer a problem for pluralism. What matters is that they come to understand and accept the epistemic values defended by others.

This short discussion does not mean to suggest that these objections can be ignored. Both actually point to a crucial part of my theory of pluralism, which is also its main weakness. Part of the project of this article has been to define a selection criterion that everybody could reasonably accept. This has at least two implications. First, the existence of a criterion implies that some theories will be rejected – those which cannot be justified by epistemic values that others can reasonably accept. If a given criterion led to the acceptance of all theories, it would have no relevance. However, I think that the criterion chosen in this article is able to strike the right balance between

the status quo and relativism. Second, reasonable acceptance requires mutual understanding, for one cannot reasonably accept something that she does not understand. Therefore, reasonable pluralism can have a chance of success only if mutual understanding is possible. This point has larger implications for the pluralist project in general. I think that pluralism as it is usually understood cannot succeed if there is not even a possibility of agreement at the level of epistemic values. I am disposed to think that agreement is possible, but I understand that others might disagree.

#### **4.2. Is communication possible?**

Absence of dialogue with the mainstream is a regular complaint of heterodox economists. Daly (2013), for instance, regrets that his critique of growth economics has simply been ignored by many mainstream theorists (but not all). His complaint may find support in several empirical studies, which highlight the ‘insularity’ (Fourcade et al., 2015, pp. 92–95) and ‘self-referentiality’ (Aistleitner et al., 2019; Glötzl & Aigner, 2019) of mainstream economics, which is cut from any sort of interactions with other disciplines or economic methodologies. As Colander (2010, p. 47) abruptly puts it, mainstream theorists simply ‘don’t think about it’. This state of affairs is also reinforced by the fact that some schools of thoughts (mostly part of the mainstream) take the lion share of funding and resources, which leaves non-mainstream alternatives unable to compete (Fourcade et al., 2015). Yet not all heterodox economists are willing to talk with their opponents either (Sent, 2003). Some hold the view that mainstream economics ought to be opposed, and even argue for rejecting altogether all communication with the mainstream. Spash (2012), for instance, explicitly rejects pluralism of methods within ecological economics and condemns severely the influence of neo-classical economics on this field of research.

My defense of pluralism in section 2 attempted to show that fruitful interactions between competing schools of thought were not so uncommon and were able to produce significant benefits. Yet I cannot deny that the argument developed in this article rests on ideal assumptions which do not fit well with these observations. In fact, my argument does not simply rely on the belief that economists share a common set of epistemic values, it also assumes that economists are reasonable and that they will be willing to debate and listen to the reasons given by others. Am I excessively naïve, or optimistic, to think that communication can succeed? Will opponents be ready to listen to each other, and accept others’ justifications, despite entrenched disagreements on key issues?

It is undeniable that the arguments defended in this article assume an ideal context of communication. As the previous paragraph has made clear, this ideal may be quite distant from reality. There do exist stark status and resource asymmetries between different schools of thought. Nevertheless, the purpose of an ideal is not to conform to reality, but to give us a target, which is both reachable and desirable. In the remaining of this section, I argue that the ideal of communication between competitors is not out of reach.

First, note that dialogue should primarily be understood as dialogue between communities, and does not require the participation of all economists. Defending pluralism does not mean that everyone should be an ‘active’ pluralist (De Langhe, 2010). Probably, there will be such ‘active’ pluralists, who actively mix different theories and methods in their own work. However, individual economists can also remain attached to a specific community, while accepting that other ways of doing economics are also acceptable. These may be called ‘passive’ pluralists, open to different views, but mainly doing research in some tradition. These passive pluralists may, and most probably do, engage in pluralist projects, in collaboration with a diverse group of economists, who each commit to different methodologies and theoretical backgrounds, but who share the view that multi-disciplinary work is fruitful. Finally, many will be no pluralist at all. They will deny the worth of pluralism and reject the works of those that do not share their methodological views. This is here that the communication challenge arises.

Non-pluralists have two possibilities. First, they may stay silent. In private, anyone can safely hold the view that what others are doing is worthless. However, that option entails that the non-pluralists

can no longer raise a complaint about the existence of a competing theory or method. If they want to reject some theories, then they should go public. They should provide some justification for it and enter in dialogue with their opponents. The requirement of justification is a public requirement. It requires economists to express publicly the reasons that drive their choice of method or theory, and to voice publicly the criticisms they might have about the choice of others. When economists from various theories engage in a public dialogue of this kind, it is much harder for them to argue that their (and only their) theory appeals to the right epistemic values. When Solow and Stiglitz reply to Daly, for instance, they point at the fact that, despite their simplicity and their limited correspondence with the facts, their models share other virtues, such as mathematical rigor and clarity. That is, they acknowledge that what they are doing is not perfect and that other ways of doing economics might better respect other epistemic values.

Thus, taking the communication challenge seriously entails certain normative requirements for scientific dialogue between economists. Philosophers of science (e.g. Longino, 2002) have long argued that such requirements should underlie all practices of communication between communities, including the examples described by Gräbner and Strunk (2020, p. 324). In line with this literature, I have already argued that economists should be open to criticism. I would like to add three more. The first is that every theory or method deserves equal consideration before other communities accept it as valid or reject it as inadequate. Those who would wish to reject it should accept to discuss with those who defend opposite views. Second, that dialogue should be made of adequate arguments and should appeal to epistemic values recognized by all. Third, the theories and methods that are deemed justified should be granted equal standing and equal recognition by peers. There is no reason, and no potential gain for anyone, to denigrate publicly a method or a theory.

## 5. Conclusion

In this article, I defended two main theses. The first is that pluralism of theories and methods is justified by its epistemological benefits. The second may be called *reasonable pluralism*, or the view that we should only accept those theories and methods that can be justified by their communities with reasons that other communities can accept. More specifically, I argue that competing theories or methods can be justified by their proponents by appeal to epistemic values, such as rigor, accuracy, or fruitfulness.

The possibility of reasonable pluralism rests on the assumption that economists of different persuasions can find a common ground to communicate with each other and evaluate each other's theories. In that sense, reasonable pluralism is an ideal, which entails certain normative requirements for appropriate communication: equal consideration among competing theories, appeal to collectively recognized reasons, and equal standing among justified theories and methods.

I have refrained from defending concrete demands, such as demands for fairer funding of different schools of thought, or for a less unequal distribution of resources among economic departments. I leave it to further research to determine whether my arguments may lead to such outcomes. The more modest conclusion of the paper is an invitation for economists to justify their own practice and to listen to the justification of others. This is an invitation to be humble about one's own theory and tolerant towards the work of others.

## Notes

1. An additional problem is that some groups of economists (for instance, the mainstream) may simply refuse to enter in dialogue with others, or make sure others have the necessary funding to do their work adequately. In sections 2 and 3, I will assume this problem away, for the sake of the argument. But I will return to it in section 4, where I discuss what happens in less ideal conditions.
2. On the value of dissenting view in science, see also Kitcher (2011) and Longino (1990, 2002). Intemann and de Melo-Martín (2014) raise important worries which I discuss in section 4.

3. I do not mean to suggest that neo-classical models are now in line with planetary boundaries. I rather want to stress that there is growing recognition that these boundaries matter, as the recent 'Nobel' prize in economics awarded to William Nordhaus may illustrate. Nordhaus' work itself may be far from fulfilling Daly's requirements, but it is a sign that the discipline is moving away from the total disregard of these matters which it cultivated not so long ago.
4. This does not imply that studying past theories will always be useful to present inquiries, especially if they take place in different fields of inquiry (see Lari, 2021). My more modest point is that pluralism has value because it allows at least some theorists to get inspiration from others.
5. Since Kuhn's original article was published, a lot of research has been done on epistemic values (Laudan, 1977; Lichtenstein, 2021; Longino, 1990, 2002; Mäki, 2020). It falls beyond the scope of this article to discuss all of it.
6. Under the label of Post-Modernism, Elster attacks the theories of Foucault and other French philosophers of the same period, as well as the fields of gender studies, race studies, and post-colonial studies (Elster, 2015, p. 452ff). I do not endorse his claims here. They only serve to illustrate how one could openly criticize established theories, methods, or even disciplines, because of their lack of respect for key epistemic values.
7. A theory or method might be justified for several reasons, and not all of its defenders need to put forward the same, consensual, reasons. If there is a plurality of arguments in its favor, that is for the better.

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No potential conflict of interest was reported by the author(s).

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