

Pluralism in economics: its critiques and their lessons

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Abstract

This paper provides a taxonomy and evaluation of five common arguments against pluralism in economics: (1) the claim that economics is already pluralist, (2) the argument that if there was the need for greater plurality, it would emerge on its own, (3) the assertion that pluralism means ‘anything goes’ and is thus unscientific, (4) the claim that economics must have a single core paradigm to justify its role as a major science, and (5) the contention that pluralism is an ideological movement from the left, and should not be granted scientific attention. We submit counter-arguments to all these arguments.

Based on the assessment of these critiques we identify two main challenges to be faced by advocates of pluralism: first, the need to derive adequate quality criteria for a pluralist economics, and, second, the necessity to propose strategies that ensure the communication across different research paradigms. The paper concludes with some suggestions to meet these challenges.

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1. Introduction

The call for pluralism in economics has gained a large number of supporters in the past couple of years (e.g. Dow 2004; Sent 2006; Dobusch and Kapeller 2009; Gräbner 2017), yet it remains contested for various reasons (e.g. Hodgson 2017; Becker 2017; for a discussion of reasons see Flechtner 2018). While a majority of the literature on pluralism in economics has been concerned with a justification of pluralism, the direct engagement with criticism has not been of primary importance so far and is, therefore, the main focus of this paper. Thus, we contribute to the debate about pluralism by discussing five prominent and frequently articulated arguments against the plea for pluralism. We scrutinize which arguments pose a serious challenge to the pluralism movement, and which steps are necessary to address them. Thereby we offer a new classification of critiques, according to which some of the arguments are criticizing the pluralism *movement*, while others criticize the *concept* as such. While we argue that the critiques posed against the movement are less convincing, we do find that the arguments challenging pluralism as a concept do contain viable contributions that have to be dealt with by pluralists. Specifically, they must advance answers to the questions of (1) how communication among different schools of thought can be effectively realized, and (2) whether and how a quality assessment within a pluralist economics community can be ensured.

It is important to note that while all arguments addressed in this article are present in the current debate, not all of them are new.¹ In fact, those criticisms we consider to be most convincing are rooted in long-standing debates in the philosophy of science. Likewise, the responses provided here at least partly draw upon a synthesis of previously formulated arguments. Thus, aside from providing a compact engagement with common criticisms of the concept of pluralism, this article tries to move some of the public debate on a more academic level, and to link conventional contentions to more precise arguments made in the philosophy of science. Thereby we – hopefully - contribute to both a rise of transparency and clarity in the debate, as well as to an improvement of the concept of pluralism as such.

¹ Also, arguments against pluralism are not only formulated in academic publications, but regularly posed in personal conversations, blog articles, or social media such as Twitter and Facebook.

To achieve these goals we proceed as follows: section 2 clarifies the main terms and concepts of the upcoming debate. Section 3 assesses five common critiques of pluralism. A discussion of the “lessons learned” follows in section 4, which also highlights important challenges for future research. Section 5 summarizes and concludes.

2. Pre-considerations about pluralism

Debates about pluralism frequently suffer from an ambiguity of terms and concepts (Sent 2006). Thus, to avoid misunderstanding we begin with a clarification of the basic concepts to be used throughout this paper. In particular, the term ‘pluralism’, as well as the ‘dimensions’, ‘justifications’ and ‘degrees’ of pluralism, and the term ‘research program’ will be defined.

First, we follow Mäki (1997) and distinguish between plurality and pluralism. While plurality will be understood as a descriptive category that reports the multiplicity of an item, pluralism will refer to a normatively connoted “theory or principle that justifies or legitimizes or prescribes a plurality of items of some sort” (Mäki 1997, 38).

Second, we distinguish between various dimensions of pluralism and plurality. The dimensions of pluralism describe the areas within which a plurality of items could be prescribed or justified. While Mäki provides an extensive (yet non-exhaustive) list, the present contribution will be confined to the dimensions as outlined in table 1. This focus is motivated (a) by our desire to keep the present argument as concise as possible and (b) by our conviction that they denote the core areas in which the discussion around and demand for pluralism in economics takes place.²

Third, the same dimensions allow for categorizing justifications for pluralism. Since pluralism is a normative concept, references to particular reasons for a certain level of plurality are mandatory. These reasons can be, among others, of an epistemological, pragmatic, or ethical kind. We suppose that many misunderstandings in the debate about pluralism stem from the fact that authors are not clear for which dimension of plurality they are arguing, and which kind of reasons they provide (see also Flechtner 2018).

² Sometimes, these dimensions necessarily overlap, e.g. in the case of methods and theories. Yet we believe they provide for an illustrative distinction that is useful for structuring the debate.

Kind of plurality	Items referenced
Theoretical plurality	Theories
Epistemological plurality	Criteria for what counts as a (good) explanation.
Purpose plurality ³	Aims of inquiry, questions and problems considered worthy of inquiry
Methodological plurality	Methods used for inquiry
Axiological plurality	Values underlying the inquiry

Table 1: *Dimensions of plurality.*

Fourth, plurality is not a matter of all-or-nothing. Rather, it is a matter of degrees. To this end, Mäki (1997) distinguishes between substitute and complementary theories: theories (and, we would add, methods) can be substitutive or complementary towards one another. Toleration of rival claims to truth is more demanding than toleration of complementary claims. Therefore, a plurality of substitutive theories or methods requires a higher degree of pluralism than a plurality of complementary theories or methods (Mäki 1997, 45 for examples see section 3.1). This is not to say that a higher the degree of pluralism in all dimensions, is always better. Maximizing plurality in all dimensions is not considered desirable by the majority of pluralists (Caldwell 1988; Caldwell 1997; Mäki 1997; Marqués and Weisman 2008).

Finally, the Lakatosian term ‘research program’ will be used frequently throughout this article. As in the original, a research program in our use of the term is constituted by its core. Yet in contrast to Lakatos (1970), the core of a research program does not only include concrete hypotheses and axioms, but also conventions about the dimensions mentioned above, such as purposes, theories and methods. More specifically, the core of a research program specifies the questions worth investigating as well as the admissible (meta-)theoretical assumptions and methods for these investigations. It thus includes an agreed upon summary of the *pre-analytic Vision* (Schumpeter 2006) of the members of a given research program.

³ This was originally referred to as ‘pragmatic plurality’ by Mäki, but since we use the term ‘pragmatics’ in another way below we decided to use ‘purpose plurality’ in order to avoid misunderstandings.

3. Arguments against pluralism

Five common criticisms of pluralism are discussed in this section: (1) “Economics is already pluralist”, (2) “If there were a need for pluralism, it would emerge on its own”, (3) “Pluralism means ‘anything goes’, and is thus unscientific”, (4) “A core paradigm in economics is needed, because that is what determines a mature science”, and (5) “Pluralism is left-wing ideology”.

3.1. The discipline is already pluralist

Some argue that economics as a science has already become more pluralist (e.g. Colander 2000; Colander, Holt, and Rosser 2004; Davis 2006; Davis 2008b; Becker 2017; Cedrini and Fontana 2017).⁴ While this does not criticize the concept of pluralism as such, for some (e.g. Becker 2017, but not for, e.g., Davis 2006, 2008b or Cedrini and Fontana 2017) this means that the critique of pluralists actually addresses a strawman. Newly emerged research areas such as behavioral economics are often presented as examples. Yet, if one assesses this argument and asks whether or not economics is already pluralist, one has to be explicit about the *dimension* and *degree* of pluralism. While it is true that there are a number of developments within economics that do imply a certain openness of the discipline in one dimension, this is not necessarily true for others. Thus, depending on the dimension considered and the desired degree of plurality, the argument that the discipline is already pluralist might be true or false, and so is the conclusion that pluralists are addressing a strawman.

Considering the normative dimension of economics, for example, the claim is most likely true: there is indeed a multiplicity of values represented in the current mainstream. However, considering methodological pluralism, the claim is almost surely false. For example, Dani Rodrik’s recent book “Economics Rules” is sometimes used as proof for the adequate plurality of economics (e.g. Bachmann 2016). However, Rodrik writes that he defines economics as “a way of doing social science, using particular tools. In this interpretation the discipline is associated with an apparatus of formal modeling and statistical analysis rather than particular hypotheses or theories about the economy” (2015, 7). The core of this apparatus is usually associated with the concepts of optimization and equilibrium (see e.g. Sugden 2000; Lazear 2000; Witt 2014; Marchionatti and

⁴ Davis (2006) uses the term ‘mainstream pluralism’ when discussing the current state of the economics mainstream.

Cedrini 2016) and sometimes also individualism (e.g. Davis 2008a). This core is an important element of almost all models accepted in the dominant economic research program. So while members of this dominant approach to economics have indeed started to engage with a plurality of new topics (Mäki 2009; Cedrini and Fontana 2017), they have done little in broadening the dominant methodological approach. Colander *et al.* (2004) summarize this by noting that “the current elite are relatively open-minded when it comes to new ideas, but quite close-minded when it comes to alternative methodologies” (p. 493). Thus, although the mainstream does allow for a certain plurality of theories and ideas, it does not so regarding a plurality of methods. So if pluralism also refers to the plurality of methods, then the current economic discipline would not be considered pluralist.

The same holds true on the epistemological level. As Colander *et al.* (2004) summarize: “It if isn’t modeled, it isn’t economics” (see also Sugden 2000; Lipsey 2001). Yet, that modeling is certainly not the only strategy to generate knowledge about a system under investigation has been discussed extensively in modern philosophy of science (Weisberg 2007; Frigg and Nguyen 2017). Thus, excluding all non-modeling approaches from economics is certainly incompatible with plurality in the epistemological dimensions.

Thus, the validity of the argument that the discipline is already pluralist depends clearly on the dimension considered to assess pluralism. But within each dimension of plurality, an assessment of the present argument also requires one to consider the desired *degree* of pluralism. As noted above, it is hard to classify a discipline “pluralist” or “not pluralist” - the question should be *to what extent* a discipline is pluralist in its various dimensions (see also Becker 2017). Here, it is helpful to use the distinction between complementary and substitutive theories or methods as introduced in section 2: the toleration of the latter implies a higher degree of pluralism than the toleration of the former.

In behavioral economics, for example, there is one part, represented by people such as Ernst Fehr or Richard Thaler, that challenges the descriptive rationality assumption of economic models and integrates new behavioral assumptions into utility-maximizing models (Fehr and Schmidt 1999; Fehr and Schmidt 2010; Benartzi and Thaler 2007). This research gets regularly published in mainstream journals and researchers enjoy a high prestige within the community. Within a plurality of theories, but not of methods, it offers interesting complementary research insights, particularly as a facilitator for immunizing economic theory from empirical critique via the strategy of *axiomatic*

variation (Kapeller 2013): appropriately interpreted, these results only show the superiority of the economic approach by explaining more and more empirical cases with models containing optimizing agents and a systemic equilibrium. Another part of behavioral economics, represented by researchers such as Gerd Gigerenzer or Kumaraswamy Velupillai, argues that—inter alia - the concept of optimization is wrong (Velupillai 2006; Berg and Gigerenzer 2010; Gigerenzer and Gaissmaier 2011). Thus, these researchers propose a substitutive approach, their research is not published in high rank journals and they enjoy little prestige within the community, if they are known at all.

In all, the preceding arguments stress the importance to precisely state the dimension of plurality discussed. While there seems to be openness towards new, even potentially substitutive ideas within the theoretical dimension, there is very limited toleration in epistemological or methodological dimensions, even for complementary approaches (see table 2).

	Complementary approaches	Substitutive approaches
Theoretical dimension	yes	maybe yes/if right method
Methodological dimension	Maybe yes/if right theory	no

Table 2: *Illustration of the openness of the dominant approach in economics against complementary and substitute approaches.*

3.2. If there were a need for pluralism, it would emerge on its own

Some argue that the meritocratic nature of the economics community renders pluralism as the demand for greater plurality superfluous since whenever there are promising approaches of doing economics, they are considered in the economics community (e.g. Bachmann 2017). Consequently, proponents of this claim argue that the mainstream has already incorporated all the promising aspects of alternative approaches. Any explicit demand for plurality is unnecessary since all (and only) promising approaches pass the “market test” (2000): the right degree of plurality is exactly that degree produced by the scientific community.

The validity of this argument hinges on the existence something like a ‘perfect market for economic ideas’ that serves as a selection machine which picks the ‘good’ theories/methods/etc. to

the right degree. Such a selection process presupposes a ‘level playing field’: new ideas can always enter the academic discourse, they are always considered, assessed, and – if judged useful– respected within the economics community. There is evidence that this presumption is not fulfilled for at least three reasons: (1) the path dependent development of research programs under current scientific institutions, (2) the lack of discursive openness of mainstream economists towards alternative approaches, and (3) a monistic curriculum.

First, a level playing field requires scientific institutions that prevent the accumulation of academic power towards a single research program for purely structural reasons. Given the current institutions of the scientific systems, however, different research programs accumulate academic power according to a path dependent and self-reinforcing process: those research programs with many members, much influence and greater power are likely to grow relatively faster – irrespective of their inherent quality (Sternan and Wittenberg 1999; Dobusch and Kapeller 2009; Kapeller 2010; Gräbner 2017). The existence of path dependencies in terms of the development of research programs inevitably leads to monopolization tendencies and hinders new paradigms to enter the scientific discourse.

Second, the idea of a perfect market of ideas presupposes that new ideas –irrespective of the their paradigmatic origins – are outlined to the scientific community, discussed and assessed. Such an inclusive discourse does not happen in economics. In mainstream outlays less than 3% of total citations refer to heterodox publications. Non-mainstream scholars, on the other hands, cite their mainstream colleagues regularly (see figure 1). Of course, one might conclude that ‘non-mainstream’ outlets are simply of lower quality and therefore not worth being referenced anyway. Yet such interpretation does not align with the fact that ‘mainstream’ papers citing non-mainstream publications tend to have higher impact than those which do not (Aistleitner, Kapeller, and Steinerberger 2017, 17). The more adequate answer is given by Colander (2010, 47): “My honest answer to that question [‘What does mainstream economics think of heterodox economics?'] was that they don’t think about it.” (for empirical evidence based on a citation analysis see e.g. Glötzl and Aigner 2017; Aistleitner, Kapeller, and Steinerberger 2017). Thus, the forum for a ‘market of ideas’ is simply not given to the extent as claimed by proponents of this argument.

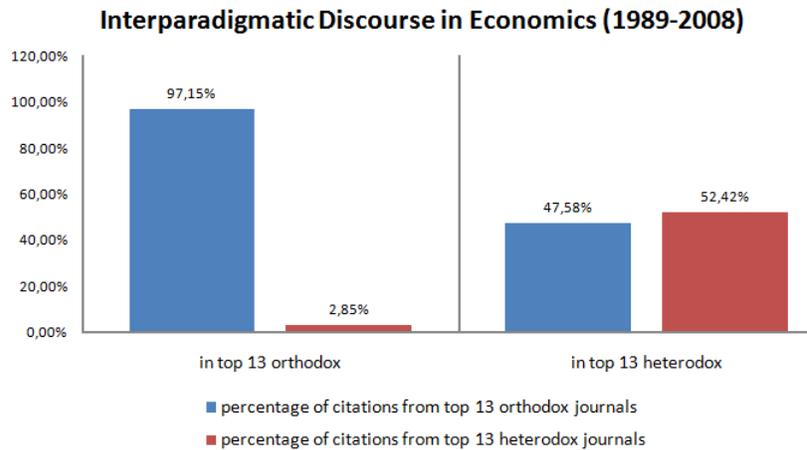


Figure 1: *Citations from and to heterodox journals* (Aistleitner, Kapeller, and Steinerberger 2017, 15).

Finally, a ‘perfect market for ideas’ would also require that students in economics are exposed a variety of research approaches. Only if the presence of different paradigms is indicated to young economists right from the beginning they can choose their research orientation on the basis of their interests, and the adequacy of the respective approach for their research question. Otherwise, junior scientists would be biased towards a dominant way of doing economics, and the dominance of one approach does not necessarily indicate a substantial superiority. But teaching material in economics is rather monistic, as not only numerous protests of students (e.g. the “Exploring Economics” program (Dimmelmeier et al. 2017), the “Rethinking Economics Textbook” (Fischer et al. 2017), or the open letter of ISIPE in 2014), but also empirical investigations indicate (Lee and Keen 2004; Beckenbach, Daskalakis, and Hofmann 2016).

Altogether, the argument that pluralism would emerge on its own if there was a need for it does not seem to be built on solid foundations. In research, there is no level playing field for different paradigms, and the different assessment cannot convincingly be explained with quality differences alone. In terms of teaching, empirical studies of teaching material and numerous student protests indicate that the weight of the mainstream in teaching is excessive. It is not clear at all how under such circumstances the scientific community should serve as a perfect selection machine of ideas and a ‘market test’ a la Lazear (2000) could be successful. From this it follows that we need to

determine the level of plurality desired for ourselves: we cannot source out this discussion to something like the “scientific system”.⁵

3.3. Pluralism means “anything goes”, and is thus unscientific

The two arguments assessed above address the status of the discipline without questioning the concept of pluralism itself. The present argument challenges pluralism on theoretical and epistemological grounds by stating that pluralism means “anything goes”, and thereby endangers the scientific status of economics. Originally coined by 20th-century philosopher Feyerabend, the phrase ‘anything goes’ has been adopted by critics of pluralism as a way of expressing their worry that opening the field to pluralism would result in anarchism, which, in turn, is considered non-scientific (e.g. Backhouse 1998, 144; Bachmann 2017). In drastic works: “That way lies the permissive chaos in which the principle that ‘anything goes’ will ripen into the dogmas of mob rule, and so usher in the dictatorship of some genocidal popular or ‘proletarian’ boss, such as ‘the great scientist’, Stalin” (Hutchison 1981, 218). Non-scientificity, it is argued, puts the success of the discipline at risk by diminishing shared quality standards.

Yet pluralism does not necessarily imply a demand for anarchism in the sense of “anything goes”. Neither do influential pleas for pluralism demand this (Sent 2006; Davis 2008a; Marqués and Weisman 2008; De Langhe 2010; Dobusch and Kapeller 2012),⁶ nor is methodological anarchism without any commonly shared standards practiced by most advocates of pluralism. Despite the fact that ‘anything goes’ is neither agenda nor practice within pluralist economists’ research communities, the fear among critics remains that pluralism wants to give academic resources to paradigmatic movements that are ‘not scientific’.

Yet, when evaluating the ‘scientificity’ or ‘unscientificity’ of any research program, we inevitably run into the widely discussed problem of demarcation: while evaluating a research program based on its scientificity requires an objective criterion according to which its

⁵ Or course, one might evade the previous argument altogether and accept that a perfect selection of ideas does not take place. Nevertheless, one might argue that the current state of plurality is the adequate one. Yet then one would need to provide some justification for this assessment.

⁶ There might be some proponents of pluralism indeed argue for an ‘anything goes’ in the strict sense. But even if there were some convincing theoretical arguments for such a position, it would be untenable for practical reasons. This is also the view held by the majority of pluralists today (e.g. Caldwell 1997, Sent 2006, Marques and Weismann 2008, Dobusch and Kapeller 2012).

scientificness could be determined, the relevant philosophical literature largely agrees that such a criterion simply does not exist (see Pigliucci and Boudry 2013 for a recent review of the literature).

Since we cannot meaningfully talk about scientificness or non-scientificness of research programs, accusing research programs of being unscientific comes to nothing. But there is another interpretation of the critique about potential non-scientificness of non-mainstream research programs: this worry refers to supposedly diminishing quality standards, which are thought to put the success of the discipline as a whole at risk. If we evaluate each program according to its own standards, how can we still ensure that research is of high quality? And in the light of the absence of such standards, are we not, in the end, still left with “anything goes”?

Against this, one might argue in favour of (broad) quality standards, and against the proposition that the absence of clear-cut quality standards would mean “anything goes”. Kuhn (1977) discusses this for the natural sciences. Despite the fact that there are, according to him, five standards for theory choice (accuracy, consistency, broad scope, simplicity, and fruitfulness), he argues that these criteria are necessarily imprecise, as well as neither necessary nor sufficient for good science. Regarding accuracy, for example, Kuhn points out that Copernicus’ system of planetary movement was “not more accurate than Ptolemy’s until drastically revised by Kepler more than 60 years after Copernicus’s death” (p.323). Regarding consistency, heliocentric astronomy was inconsistent with existing scientific explanation at the time, so that the consistency criterion “spoke unequivocally for the geocentric tradition” (ibid). While such criteria are important, thus, there are ample examples in the history of sciences where they did not hold for theories that we nowadays unquestionably consider ‘better science’.

Kuhn therefore calls these criteria *values* instead of criteria, to the effect that (1) it is possible that there might be contradictions without the whole system breaking apart, and (2) the standards used to choose one theory over another are necessarily subjective (as they are values). Despite this supposed lack of universal and unambiguous quality standards, hardly anybody would claim that in natural sciences “anything goes”. A similar argument can be made for economics: recognizing the limits of our current methodologies and epistemologies does not necessarily lead to a total rejection of quality standards. This is consistent with what most adherents of pluralism argue (Caldwell 1997; Sent 2006; Bigo and Negru 2008; Dobusch and Kapeller 2012). Pluralism must still “respect logic, consistency and the stability of meanings within arguments. [I]t should comply with the minimal

rules of good argumentation: not anything goes” (Marqués and Weisman 2008, 117). Proposing a broadening of quality standards, as well as a recognition that specific quality standards depend on the purpose of the specific research undertaking, does therefore not mean that these standards are inferior, or that “anything goes”, but rather implies a more realistic view on scientific practice. It is, however, important to accept at this point that the question of how quality can be ensured poses an important challenge for pluralism. It will, therefore, be discussed in more detail in section 4.

3.4. We need a core paradigm in economics, because that is what determines a mature science

Some argue that the demand for more plurality and the (supposedly) concomitant broadening of quality standards might stand in the way of the progression of economics as a science (Gintis 2009; Colander 2014; Gintis and Helbing 2015). It is also considered harmful for the overall reputation of economics: “altogether pluralism generates doubts about economics’ standing as a science, whereas dominant approaches tend to reduce these doubts” (Davis 2008b, 353).⁷ From this one might conclude that for the scientific community to function, we need a well-organized and widely accepted foundation on how to do science – a single ‘core’ (Lakatos 1976). The argument can be traced back to Kuhn’s (1970) discussions of ‘normal science’, which postulates that each science progresses towards maturity through certain stages beginning from pre-normal science.⁸ In pre-normal science, there is no shared consensus on relevant research questions, methods to use, or quality criteria. Without a common starting point, no academic debate can take place, and no accumulation of knowledge - hence no progression - is possible. Only once the scientific community has agreed on a certain set of standards, a given scientific discipline develops. On these grounds, Hodgson (2017) criticizes the idea of a ‘heterodox’ economics: missing a common core, he argues, heterodox economics fails to contribute to economics in a substantive way.

One argument against this stresses the lack of means to identify “the right” core. Similar to the absence of a single, objective yardstick for ‘scientificness’, we lack a single criterion for the

⁷ This does not mean that Davis dismisses the call for pluralism, the contrary is the case.

⁸ Kuhn is concerned with natural sciences, and the prospect of finding a right core is much lower for social sciences. However, even when regarding natural sciences it does not seem that Kuhn’s descriptions always holds. A point in case is physics. Physics is undoubtedly regarded as a normal science, yet it does not have a single core, nor is it free from methodological debates and ambiguities, particularly in the current debate about string theory. See Smolin (2008) for an exposition readable for non-physicists.

‘correct way of doing economics’. Against this backdrop, it would be irrational to select one set of methods, theories, etc. and to declare it the core of economics. So the lack of a single core should not be considered a bug, but rather a feature in the light of epistemological uncertainty. This especially holds true for a social science where the object of investigation is not objective, external, and never-changing, but inherently constructed and context-dependent (e.g. Rodrik 2015) such that choices regarding the questions asked, the methods used, and the theories referred cannot be made on objective grounds alone. They are inevitably moulded by our personal worldviews, be it called *Weltanschauung* (Weber 1922), pre-analytic Vision (Schumpeter 2006), prior beliefs (Peirce 1958 6.146) or perspective (Giere 2006; Hoover 2010). Because of the resulting fundamental epistemological uncertainty with regard to the optimality of any core paradigm, any dominant core must be continuously questioned to avoid an intellectual lock-in (see also Heckman et al. 2017).

A second argument is narrower and mainly concerned with pluralism in the methodological and theoretical dimension. There is a large literature on ‘trade offs’ in modeling (Levins 1966; Weisberg 2006; Matthewson and Weisberg 2008) which has shown (and logically proven) that for any practically relevant situation, there are trade offs in modeling them, i.e. it is impossible to build a model that scores best in every relevant dimension such as *generality* of *precision*. Thus, depending on the research question different models must be used. This has been called the ‘multiple model hypothesis’ and received significant attention in philosophy (Levins 1966; Matthewson and Weisberg 2008; Goldsby 2013). There is reason to suspect that the result also holds for theories. Different theories and models all have their strengths, weaknesses and blind spots. Only an effective triangulation of different perspectives brings real epistemic progress.

In summary, we agree that *if there were* a one appropriate core that we could identify, knowing with certainty that this core offers the best tools to approach all kinds of economic realities, focusing on this core would come with many advantages (see also Gräbner 2017): if people share a similar conception of how to represent reality, and which model mechanisms are allowed for explanation, then the scientific community can advance quickly in improving their models. Yet, the epistemological arguments we have made also indicate the existence of a trade off: if one focuses on one core research program despite the uncertainty with regard to the existence, uniqueness and identifiability of such a core, the danger of intellectual lock-ins increases considerably, and this is, in the medium run, devastating for any discipline. Yet, the many difficulties that come with the co-

existence of various research programs do indeed represent an important (open) challenge for pluralists, and are, therefore, taken up in section 4.

3.5. Pluralism is left-wing ideology

The final argument is the claim that pluralism is not really a scientific movement, but rather a political movement of people who seek to strengthen research programs that tend to provide the (usually leftist) policy implications they want (e.g. Bachmann 2017; Becker 2017; Potrafke 2017): pluralists “essentially see (social) sciences as the intellectual arm of a movement for political reform” (Becker 2017, p. 838, translation by the authors). The interest in a plurality of research programs is - according to this critique - only of secondary importance, and a means for the movement to support research programs that provide the policy recommendations consistent with the political ideology of the pluralists. The argument might stem from the observation that there seems to be a positive correlation between the probability to support pluralism and the probability to endorse left political orientations.

There is, however, little evidence that this rough correlation stems from a logical relationship. Rather, the correlation is most likely due to the fact that many values typically associated with the political left - such as tolerance - are immediately related to pluralism, while some values typically associated with the political right - such as the trust in hierarchies - are not. But this relationship is neither strong nor decisive and it is as easy to find examples of scholars with left political positions who reject the pluralist movement - see Paul Krugman or Clive Spash - as there are liberal-conservative scholars such as Nils Goldschmidt who embrace the call for pluralism. Pluralism is the call for a plurality of research programs or paradigms. Neither do most paradigms stand for a particular political ideology *per se* (e.g. Lawson 2005; Hodgson 2017), nor does the call for pluralism exclude any paradigms that are often associated with conservative or libertarian positions. As a case in point, the online learning platform launched by the German Network for Pluralism includes both the (often considered conservative) Austrian school of economics and Marxist Political Economy (Dimmelmeier et al. 2017). Both paradigms are also included in the textbook of the UK Pluralist association *Rethinking Economics* (Fischer et al. 2017).

Sometimes the argument is framed more broadly: critics argue that pleas for pluralism generally come from ‘heterodox’ economists, who simply want to push their own paradigm rather than to promote true plurality (Colander 2010; van Bouwel 2009). There are certainly examples for this ‘strategic pluralism’ (Giere 2006, 40), but such ‘paradigm warriors’ (Garnett 2006) misunderstand the plea for plurality as issued by most pluralists and as advocated here, according to which the dogmatic appraisal of a single paradigm and pluralism are incompatible (Dow 2004; van Bouwel 2009; Dobusch and Kapeller 2012).⁹

Finally, the argument seems to suggest that a non-pluralistic economics (or the current mainstream) provides an alternative conception of economics, which can be devoid of any reference to values, i.e. a purely *positive* economics. This idea of a value-free social science, however, is a chimera, which has been recognized as such in the literature on the epistemology of economics and the social sciences (Putnam 2002; Davis 2014; Colander and Su 2015). Many adherents to the current mainstream do not seem to catch up with this premise. As an example for research practice see Erhard and Jensen (2017), who claim to derive the concept of ‘integrity’ from a purely positive basis (see also the comment by McCloskey 2017). With regard to teaching, a recent study of economic education materials, many textbooks, including those of Mankiw and Samuelson, are rife with deliberate and covert forms of persuasion and normative framing (Graupe 2017). The economic mainstream, thus, does itself not live up to any self-proclaimed value-freedom.

4. Discussion: The challenges for pluralism

The previous elaborations have shown that critiques of pluralism are very diverse (and sometimes even contradictory) and directed at different targets (see table 3): arguments 1,2 and 5 are a critiques of the pluralist movement as such, claiming that either the pluralists’ demands are unnecessary (arguments 1 and 2) or dishonest (argument 5). These critiques do not argue against pluralism as a concept. Their ‘lesson’, if any, is that the pluralist movement and its critics should improve their communication and clarify their language.

⁹ Yet the simple corollary that anybody trying to advance her own research program is at the same time anti-pluralist is wrong. This becomes evident by the discussion of different forms of pluralism – consensual, antagonist and agonist – as outlined in De Langhe (2010). The present article most closely matches the third category, but also entails elements of the first, see section 4.2.

Arguments 3 and 4, on the other hand, pose epistemological challenges to the concept of pluralism itself, which should be taken seriously by pluralist contenders. We see two main challenges: ‘How to ensure quality in the light of broadened research standards?’ and ‘How to ensure communication in the light of multiple research programs (and thus multiple cores)?’. Although there is now an extensive literature on the potential merits of pluralism, and the seriousness of these challenges has been acknowledged by some pluralists (e.g. Caldwell 1997; Sent 2006; Marqués and Weisman 2008; Dobusch and Kapeller 2012), these questions have so far not been answered in a satisfactory manner. In the following we make some preliminary suggestions on how adequate answers could be obtained in the future.

Argument	Object of critique	Response
The discipline is already pluralist	The movement	Depends on what you mean when you say “pluralist”. Openness to new ideas but not to different methodologies.
If there were need for pluralism, it would emerge on its own	The movement	Evidence points to the contrary because of path dependencies in current institutions, uneven citing practices among heterodox and mainstream scholars, and a lack of pluralism in university curricula.
Pluralism means “anything goes”, and is thus unscientific	The concept	Pluralism does not mean anything goes, but it does imply a broadening of research standards. Open question: how to ensure quality?
We need a core paradigm in economics, because that’s what determines a mature science	The concept	In the light of fundamental epistemological uncertainty we cannot rely on a single way of doing economics, i.e. a single core. Open question: how to ensure progress?
Pluralism is left-wing ideology	The movement	While there are some people trying to exploit the pluralism movement for the sake of their political agendas, there is in general no evidence that this is a decisive element of pluralism.

Table 3: *Summary of the arguments and classification according to the object of criticism.*

4.1. How to ensure quality? Pluralism and quality criteria

While a move towards more plurality in economics does not necessarily imply the abolishment of quality standards, it certainly comes with a broadening of the standards for ‘good economics’. Such broadening of standards provokes the legitimate question: how is quality of research ensured?

Unfortunately, the list of practical and concrete suggestions for ‘pluralist’ quality criteria is regrettably small. This might have contributed to the perception of the mainstream that pluralists do not care about quality, but only about plurality. Of course, the question of finding general quality criteria is difficult and refers directly to what De Langhe (2010) has called the ‘paradox of pluralism’: pluralism warrants a plurality of views. Yet, if one does not subscribe to relativism, one has to choose among different views. But how can this be done, given a *raison d’être* is granted to all of them? In the following, we first outline three approaches that are - on their own – unable to solve the problem. But, as we argue later, a combination of them might lead us into the direction of a potential solution.

A first potential answer comes from Caldwell (1988; 1997) and highlights the importance of criticism: for Caldwell, mutual criticism is the essential constraint that prevents a pluralist economics to fall into the anarchy of ‘anything goes’. In this conception, it is not a set of quality standards, but constant communication and criticism that ensures quality of research. Yet, there is reason to believe that such a culture of criticism alone is insufficient to guarantee quality. To start with, the ‘paradox of outside criticism’ (Rolin 2009) casts doubt on the feasibility of inter-paradigmatic criticism: since criticism is always voiced from a specific perspective, it either counts as within criticism, or, if the critic operates on a different dimension than the one being criticized, mutual understanding of the critique is impossible to achieve. For example, criticism of a member of paradigm *A* that paradigm *B* members do not offer any viable explanations is a circular argument, since members of paradigm *A* necessarily only refer to paradigm-*A* standards of explanations (assuming that there would still be certain standards within paradigms). This problem would leave us yet again with a naïve relativist position across paradigms. Criticism alone does not seem to do the trick.

A second potential solution is to accept the absence of any general criteria, but to use the practical implications of specific theories as a means to discriminate among them. This implies to judge their quality depending on the question at hand. Such a proposal has been made, for example, by Dobusch and Kapeller (2012). Yet, such stance is viable only if one is concerned with applied research questions on which different paradigms issue concrete propositions. Moreover, the appraisal of such propositions is itself dependent on several meta-theoretical considerations, such as the preferred kind of explanation (e.g. functional vs. causal vs. predictive explanations). So, despite being useful in some situations, such an approach does not provide a general solution to the challenge of quality criteria.

A third approach would try to come up with a new set of standards, which are broader than current criteria but still clearly delineate admissible ways of doing research. To start with, there is certainly a set of evaluative meta-criteria generally appreciated by many, such as *transparency*, *consistency* or *accuracy*, to name a few. Yet, as we also argued above, these criteria are usually not universally applicable, nor are they unambiguous in their formulation. In fact, they are a set of values rather than strict standards that can be applied directly to evaluate a given research output (c.f. Kuhn 1977). In that sense, while these meta-criteria do provide a starting point for the evaluation of research, they alone remain insufficient.

We cannot offer a definitive solution, yet we believe that the most promising way forward for pluralists lies in a combination of the three approaches described above: establish a culture of criticism in which every critic is *explicit* about his or her meta-theoretical orientation, then take general *values*, such as those by Kuhn as general means to assess different theories on a rough basis, and finally use strict *criteria* depending on the purpose of the current investigation at hand: if the hermeneutic explanation of a feminist economist needs to be evaluated differently than the quantitative model of a complexity economist, then so it shall be. Such an approach is consistent with a pragmatist approach to economic enquiry in the tradition of Charles Sanders Peirce and the perspectival realism of Ronald Giere. According to the latter, every scientific agent builds representations of reality according to the intended purpose of this inquiry. If a representation is used for predictions, then it does not make sense to apply the same quality criteria as for a hermeneutic inquiry that is geared towards a better understanding of the actors' motivations in the

past.¹⁰ Finally, once the purpose of an inquiry is made explicit, it is easier to set more concrete quality criteria. The implication of these considerations is that the explicit communication of the purpose and the starting point of one's inquiry becomes essential. Such an approach could also exploit recent findings in the philosophy of modeling, which places the 'construal' (Weisberg 2007), i.e. the aspired level of accuracy, generality, and mechanistic adequacy, at the center of the analysis of models. Making this construal explicit on the side of the scientist and the critique would facilitate effective criticism and quality assessment of research more general (see also Gräbner 2018). This brings us to the next challenge for pluralism.

4.2. How to ensure progress? Communication

We believe that the second – and related – big challenge lies in the triangulation of and communication among the distinct instances that make up plurality. When it comes to a plurality of models, we must ask: how can we triangulate these models? When it comes to a plurality of theories, how they are related to each other? And, more generally, if there is a plurality of research programs, how can effective exchange among the members of the research programs be ensured?

Not all advocates of pluralism would subscribe to our claim that interaction and communication is important: as pointed out by De Langhe (2010), there are at least three different kind of pluralists, and only one would agree to our claim: 'consensual pluralists' do not care much about communication across paradigms because they assume that different models, theories or research programs are independent complements: for purpose A, members of research program X can make good contribution, for purpose B it is the membership of research program Y that is best-prepared. Because of this, communication among them is unnecessary. On the other end of the spectrum, the 'antagonist pluralists' claim that communication across different research programs is impossible anyway, so they may well just co-exist.

¹⁰ Yet both approaches manage to provide insights that the other perspective lacks, all begin with certain sets of beliefs and none can be said to transcend the other. Except the one perspective is a special case of the other, it is valuable to triangulate several perspectives: according to Peirce, doubt is the ultimate driver for successful scientific inquiry, and true doubt foremostly emerges from a change in perspective (Hoover 2010, 10; Peirce 1958 5.384): "Everything that is known is known from some perspective and the presuppositions of any perspective can be examined only from some other perspective. Science may progress by finding common perspectives, but it would be wrong to ever imagine that we have the highest or most general perspective – or even that there is a highest or most general perspective" (Hoover 2010, 23).

We follow the ‘agonist pluralists’ and submit that both views are wrongheaded: First, while it is true that once the purpose of an inquiry is fixed, it is much easier to compare and judge contributions from different perspectives (see section 4.1.), this usually does not eliminate all but one competing views. There are likely to remain various takes on the same problem, all geared towards the same purpose, and without effective communication among them, an alignment of these perspectives seems impossible.

Second, denying the possibility and necessity for inter-paradigmatic communication would automatically eliminate important epistemological arguments in favor of pluralism:¹¹ not only is effective communication among different research programs a pre-condition for mutual criticism, which has been argued to be an essential mean to ensure the quality of scientific work within a pluralistic science (Caldwell 1988; Caldwell 1997), it is also the pre-condition to harvest the epistemological benefits of pluralism, according to which various perspectives on reality, and their triangulation, improve our understanding of the latter. Yet if people were not able to relate the perspectives to each other, and the perspectives could not enrich each other through direct interaction, the alleged benefit from the plurality of research programs would not materialize.

Therefore, we see the need for a ‘symbolic space’, where members of different research programs can engage in a “civilized conversation among equals” (McCloskey 2001, 107) and where a constructive canalization of their conflicts can take place (van Bouwel 2009). Unfortunately, such space is not only very difficult to construct in practice,¹² it is also underresearched theoretically: Most frameworks that have been proposed so far, such as the ‘critical pluralism’ of Caldwell (1997), the ‘ontological reflexive pluralism’ (Bigo and Negru 2008) or the ‘interested pluralism’ of Dobusch and Kapeller (2012) either presume a certain level of mutual understanding, or neglect its necessity (exceptions include Dow 2004; van Bouwel 2009).

¹¹ Since there are other justifications from plurality (see section 2), a lack of communication would not necessarily mean the end of the pluralist program, yet first, epistemological arguments are among the most frequently articulated arguments for pluralism, and second, the question of how the scientific system generates knowledge in the presence of plurality is of interest irrespective of the fact that it might be used as an argument for pluralism.

¹² Reasons include: (i) members of different research programs use different constructs to represent elements of reality (i.e. they differ in their ‘meaning structure’), (ii) even in case they do use the same concepts they often use different symbolic representations for these (i.e. they differ in their ‘surface structure’), or (iii) they differ in terms of their meta-theoretical vantage points (e.g. what counts as an explanation for a member of research program A might not count as an explanation for the member of research program B).

Thus, we take it for granted that effective communication among distinct research programs is difficult to establish. The remainder of this section seeks to explore avenues of how this communication can be facilitated. Here we make some tentative suggestions for changes in the current institutions, as well as for changes in the practices of the individual researchers:

First, there must a change of communication practices among researchers. Scholars need to be more transparent with regard to their (meta-)theoretical assumptions and orientations. Providing for a more extensive model commentary has recently been called for by Rodrik (2018) and Mäki (Mäki 2018) for economics in general, and by clarifying more explicitly what the terms used in an inquiry mean, how concepts are understood in the present framework, or what the success criteria one sees for one's investigation are (the 'construal' according to Weisberg (2007)), one facilitates inter-paradigmatic discourse tremendously (e.g. Bigo and Negru 2008; Gräbner 2018). Such change in practice could be facilitated by exploiting corresponding analytical tools and frameworks from philosophers of science, as illustrated by Gräbner (2018), and by demanding such commentary frameworks for the appendices of published work.

Second, enabling young scholars with the ability to reflect upon paradigmatic differences and to effectively communicate with different paradigms is of prime importance to enable them to conduct the "exercise in hermeneutics" that needs to be at the beginning of any successful cross-paradigmatic conversations (Dow 2004, 279; see also Garnett 2006). There are a few simple means to do so, and they partly reflect demands of pluralists regarding necessary changes in the education of economics. For example, the inclusion of a mandatory course in the history of economic thought would help students to appreciate different paradigmatic viewpoints (e.g. Hodgson 2002). The same holds true for a mandatory course in the philosophy of economics (see also Rodrik 2018): here students would learn the basic terminology that helps to articulate paradigmatic dialogue. A more extensive justification of such a course, and practical advices on its content is provided by Grüne-Yanoff (2013).

Third, joint 'symbolic spaces' for inter-paradigmatic exchange can also be explicitly constructed: joint symposia, conference special session and special issues of journals explicitly geared towards the fostering of inter-paradigmatic discourse have been proven powerful for fostering

interdisciplinary research, and they can play the same role for inter-paradigmatic communication as well. The recent symposium on Dani Rodrik's *Economics Rules* (Aydinonat 2018) is a nice example.

What becomes clear from this tentative and non-exhaustive list is that any move towards more plurality must always be accompanied with an adequate change in scientific institutions. Otherwise, communication and triangulation are most likely to fail, which is why the question of how communication can be established between various research programs is of prime importance and deserves more attention by advocates of pluralism. While we have outlined some general suggestions scientific institutions that are adequate to establish adequate 'symbolic spaces' for cross-paradigmatic exchange, there is much theoretical and practical work to be done.

5. Conclusion

This article discussed five common arguments against pluralism in economics. It was shown that the arguments targeted to the *movement* are either unconvincing (A2: pluralism would emerge on its own, A5: pluralism is left-wing ideology) or not precise enough to assess their validity (A1: the discipline is already pluralist). The arguments whose object of critique is the *concept of pluralism* itself, highlighting the necessity of common quality criteria (A3) and a common core (A4), do present a potential challenge for pluralists: there is indeed a need for more research on how and which quality standards in a pluralist environment should be ensured, and how effective communication among research programs can be facilitated.

The aim of this paper has not been to provide a full-fledged theory of pluralism. We do not offer a yardstick as to which degree of pluralism in which dimensions is the "right" one. In analogy to Sen's claim that we do not need a perfect theory of justice to be able to detect injustice (Sen 2006), we equally do not need a perfect theory of pluralism to be able to make the claim that the discipline is not pluralist enough (Gräbner 2017). Currently, in most dimensions (and, as we argued, especially in the dimension of methodology) we can simply state: more plurality is good. Yet, the time will hopefully come when the one-sidedness of our discipline is not so evident anymore, and that a more specific qualification of pluralism (i.e. the desired degree of plurality in various dimensions) is needed. Therefore, refining justifications of pluralism is strongly warranted.

Finally, it has to be mentioned that our arguments are not all-encompassing either. We argued from a very specific epistemological perspective, focusing on mainly epistemological and pragmatic questions. Pluralist economics can also be argued for on different grounds, such as ethical, political or (for economics education) pedagogical grounds, with potentially different results than the ones we arrived at. A triangulation of reasons for pluralism will contribute further to a fruitful discussion on why, to what extent, and how we need and can implement pluralist economics.

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