

Not anything goes: a case for a restricted pluralism

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Abstract: The current discussion on theoretical and methodological pluralism is plagued with confusions and misunderstandings. Some problems arise because an appropriate framework for conducting a fruitful discussion about these issues is still lacking. Many other problems derive from the fact that a *rational pluralist* should be both *tolerant* with the many different points of view and able to *discriminate* among them. In the first and second sections we use some of Mäki's ideas for developing a general framework for discussing pluralism and apply it to the ongoing debate on theoretical and methodological pluralism, showing its strong compromise with demarcationism. In the third section a looser framework for approaching pluralism is outlined, and a detailed discussion of Caldwell's critical pluralism is conducted, pointing out its achievements and some of its shortcomings. The fourth section provides an outline of what a sound notion of *restricted pluralism* should encompass for avoiding "anything goes".

Keywords: pluralism, methodology, rationality

Introduction

There are several discussions in the field of heterodox economics that must be of concern to readers interested in pluralism. Not only are there theoretical schools using different languages – Neo-Austrians, Marxists, Post–Keynesians, etc.- (Dow, 1996) , but there is also a plurality of visions inside each of them. In the field of Post–Keynesian economics, for instance, some authors accept equilibrium and maximization concepts, but others reject them [1]; similar discrepancies arise regarding the nature of money [2]. Some heterogeneity concerning approaches is also manifest at individual level. Arestis (1992), for instance, exposes a holistic version of distribution theory, but regarding price theory he admits as Post–Keynesian theories that incorporate methodological individualism. Something similar could be said of other lines of economic enquiry.

Not surprisingly, then, the issue of pluralism and its limits is particularly relevant for economics. In fact, it is a permanent topic of reflection in the Post Autistic Economic Review and other specialized Journals, such as the Journal of Philosophical Economics (JoPE), which has recently dedicated a whole issue to this problematic [3]. Since 1993 the International Confederation of Associations for Pluralism in Economics (ICAPE) has organized regular meetings about pluralism and in the last years many articles and Readings have been published about the topic. No similar concern for pluralism can be observed either in the so-called "hard" disciplines or in the other social sciences.

Some economists and methodologists of economics whose ideas are highly influential in heterodox economics reject any sort of demarcationist criteria of epistemic or linguistic nature [4]. Some of them go even further and seem to contest precisely the thesis at the center of this paper (namely, argument should at least respect consistency and stability of meanings). For instance, according to Sheila Dow (one of the leading voices of pluralism in economics) standard economic theory adopts what she calls a "Cartesian/Euclidean mode of thought", which conceives theories as an axiomatic structure organized in a "formalist" manner, and claims that any macroeconomic phenomena should be grounded on individual utility functions. The standard project assumes methodological individualism and the goal of a single unified economic theory.

Against Cartesian thought, which prescribes axiomatization and formalism as the only correct scientific procedure, Dow reclaims theoretical and methodological pluralism for economics and proposes an alternative method which she calls Babylonian (many discourses and different approaches, starting from diverse, maybe conflicting, and independent premises). This is an appealing notion and deserves consideration because it has proved to be helpful in clarifying the connections between different modes of thought (see Dow, 1996). The problem is that Dow believes that for implementing the Babylonian method it is necessary to abandon "classical" (e.g., formal) logic, consistency requirements and the stability of meanings. She criticized the so-called "dualistic" thinking, which "is the propensity to classify concepts, statements and events according to duals, as belonging to only one of two all-encompassing, mutually exclusive categories with fixed meanings: true or false, logical or illogical, positive or normative ... and so on". In her view, "the principle of excluded middle" is unacceptable, because it "is encapsulated in the dualistic notion of all-encompassing, mutually exclusive categories". As an alternative to standard logic, she proposes Hegelian dialectics.

(Dow, 1996, pp. 16 – 17). For an even more involved criticism of “classical logic” and fixed (e.g., clearly specified) meanings, Dow and Chick (2001) should also be explored. A critical discussion of their position can be found in Marques (2005).

Dow and Chick's remarks are problematic because anti-formalist procedures put at risk any possibility for communication. Any sustainable conception of Babylonian thought must respect logic, consistency and the stability of meanings within arguments. Pluralism is welcome, but it should comply with the minimal rules of good argumentation: not anything goes. The present work is a defense of the necessity of putting some restraints on pluralism, subject to the following qualification: the restrictions should be independent of ontological (metaphysical) considerations and should basically consist in argumentative conditions imposed at the level of economic discourse.

The current discussion on theoretical and methodological pluralism is plagued with confusions and misunderstandings. Some problems arise because an appropriate framework for conducting a fruitful discussion about these issues is still lacking. To clarify the issue we take some valuable contributions as a point of departure of our analysis and suggestions. We start from Mäki's (1997) concept of pluralism and intent to contribute to the discussion, pointing out the necessity of having such a frame and describing some of their main features. Besides, some clarifications about what it means to be pluralist in the realm of theories and methods are advanced.

Many of the problems that these issues pose to pluralists have another source. They derive from the fact that *pluralism* is closely connected with *rationality*, a fact that gives rise to a combined notion which appears to be paradoxical. To be pluralist in a rational way involves what seems to be opposite properties as part of its meaning: i.e., to avoid a short-minded rejection of different and bold ideas as well as the excessively open “everything goes” policy. A *rational pluralist* should be both *tolerant* with the many different points of view and, at the same time, be able to *discriminate* among them. The main problem for outlining an adequate pluralist position is how to articulate these two opposed dispositions in a way that could be defended on rational bases. Particularly, we will be concerned with the necessity of elaborating a cogent notion of *restricted* pluralism, if the danger of an “anything goes” policy is to be avoided [5].

In the next sections, profiting from the contributions of Mäki and Caldwell, we will present an outline of pluralism able to accommodate the main properties mentioned above. We hope our discussion will serve to push the debate on

pluralism a little further, arguing for the reconsideration of some weak linguistic (argumentative) restrictions that should command any discourse. The plan of the paper is the following. In the first section we take some of Mäki's ideas about the subject and present a general (provisional) framework for discussing pluralism. In the second section these concepts are applied to the ongoing debate on theoretical and methodological pluralism, showing that they are contaminated by a strong compromise with demarcationism. In the third section a more flexible framework for approaching pluralism is outlined, and a detailed discussion of Caldwell's critical pluralism is conducted, pointing out its achievements as well as some of its shortcomings. The fourth section provides an outline of what a sound notion of *restricted pluralism* should encompass if the rejection of "anything goes" is going to be something more than a comfortable lip service.

A conceptual framework for approaching pluralism

To give a precise meaning to the notion of pluralism let us start with Mäki's definition [6]:

P is an instance of Pluralism regarding X if and only if P is a sentence which,

- a) accepts an existent (or prescribes a non-existent) plurality X;
- b) sustains (a) with reasons Y.

A central point in Mäki's argument is that as long as "pluralism" is defined in terms of "plurality", any vindication of pluralism requires that the precise nature of the plurality which is defended should be clearly stated. This is important because in some cases this point remains obscure [7]. Regarding X, it is important to distinguish between its *type* and its *elements*. Any kind –and a plurality may be treated as such– may be represented by a set of its traits Z that define it. Such features conform the type-X. The type is closed, in the sense that any addition to the original defining features will create another (different) type. But the number of its members remains open: new elements may be incorporated into X as far as they fit the definition. To be a pluralist means to be committed to both a defense of the type X (and, indirectly, to the set of restrictions Z which defines X) and the promotion of any increase in the number of elements belonging to X.

A second aspect of the definition is that anybody who embraces pluralism is committed to the idea that the plurality involved is beneficial in some respect.

This is why he/she supports it (as well as the enlargement of its extension) in case it exists, and claims for its existence in case it does not. More to the point, a pluralist must give some kind of *reasons* in favor of the plurality advocated. Mäki does not specify what it means to give reasons. In this paper we suggest that an individual S provides a reason about the merits of a plurality X if and only if,

- a) S posits a certain goal O (which is assumed desirable and reachable);
- b) S assumes that X is a good mean for the attainment of O.

Sentence (a) expresses an absolute value judgment and (b) a relative one (Hempel, 1960). Assuming, as Hempel does, that absolute value judgments are beyond rational argumentation, a pluralist will have a reason for X if he is able to sustain the nexus posited in (b).

Taken on account of the previous considerations, Mäki's definition of pluralism may be expanded and reformulated in this way:

P is an instance of pluralism about X if and only if, P is a sentence that

- a) accepts or prescribes type X (or, alternatively, the restrictions Z, which define it);
- b) promotes the generation of any element that could be included into X;
- c) describes a goal O (desirable and reachable);
- d) asserts that X (or, alternatively, the restrictions Z) is (are) a good mean for reaching O.

Structure [Pm]

For future reference, we will call the items (a) – (d) "Structure [Pm]". The "m" is for "Mäki". [Pm] will provide the basic argumentative structure that, according to Mäki, any (adequate) vindication of pluralism should fit. In the next sections we will examine the extent to which the usual appeals of theoretical and methodological pluralism are able to meet these desiderata.

Theoretical and methodological pluralism

As long as the defense of a definite plurality is identical to the defense of a set of criteria which defines and constrains this plurality, it is perfectly possible, on the

base of [Pm], to defend *both* theoretical pluralism *and* methodological monism. The textbook version of Popper (but see Boland, 1994) provides a good example of this compromise. According to this version he believed that advancing what he called bold conjectures pertaining to a *certain* type of theories, we could approach truth and sometimes even recognize that we were (successfully) approaching it. The “instrument” for going closer and closer to truth was a *certain* plurality of theories: those that comply with the very strong restrictions described in his demarcation criterion and his rules for acceptance and elimination. As long as theories were of the adequate type, the larger its number, the greater the possibility of improving our knowledge. In general, those who support demarcation do not welcome *any* theory, but anyone of those that fit the requirements will be supported. Other visions about demarcation may be considered as relaxations (or hardenings) of Popper’s rules, giving rise to different pluralities which are appreciated as better ways for approaching truth than the ones promoted by him. Lakatos’ methodology comes to mind. This shows that [Pm] only allows a very restricted type of pluralism, which is consistent with the one held in *traditional* methodology. A commitment to demarcationism is built in the structure [Pm]. If, on the other hand, theoretical pluralism is conceived in a more radical way, as the complete elimination of any set of methodological restrictions, “anything goes” seems unavoidable, both at theoretical and methodological level. We may call this position absolute-pluralism, in contrast with the restricted-pluralism of traditional methodology.

A serious problem that any type of theoretical pluralism designed to meet [Pm] requirements faces is that no solid *epistemic* reasons may be provided in its favour. Restrictive pluralists have failed in showing how the restrictions they advocate on theories are helpful for advancing toward truth. The several intents made by Popper aiming at finding a precise and formally correct measure of the degree of proximity to truth (verisimilitude) failed, and his followers did nothing to improve this situation. This means that demarcationists lack *positive* reasons in support of the restrictions that they want to impose on X [8]. Absolute pluralists are also unable to explain why they think that the “anything goes” policy is an optimal strategy for improving our knowledge. Nowadays most of the people who sustain theoretical pluralism reject any imposition of restrictions on theories. They not only believe that the past proposals have failed; they think that *any new* version of the demarcationist project will be flawed too [9]. Caldwell goes even further and (invoking epistemic uncertainty) advanced what seems to be an impossibility-argument against any future set of rules for separating science from non science, and for the elimination of scientific theories [10].

The previous considerations seem to imply that *theoretical* pluralism, as it is currently understood in the methodology of economics, cannot be defended in terms of the conceptual frame [Pm]. But the same happens with *methodological* pluralism. The "plurality" defended now is what McCloskey (1983) called (the set of) Big-M methodologies, i.e., a set of restrictions or demarcation rules. Take, for example, the restrictions promoted by the logical empiricists, or the ones advocated by Popper. Indeed, we may conceive an indefinite number of different methodological conceptions, each one recommending just one set of restrictions. What does it mean to be a *methodological pluralist* in these conditions? As long as they are incompatible among themselves, each proposal is an instance of methodological *monism*. A natural interpretation states that *any monist* view on methodological matters should be allowed and encouraged. More moderate positions, however, would commit themselves to the defense of some (limited) combinations of monist views. Obviously, people that promote pluralism at the methodological level would reject any of these possibilities. They do not intend to impulse the proliferation of Big-M methodologies at all (even less to promote a conjunction of any number of incompatible versions of them). They have a very different thing in mind. Surely they want to eliminate any Big-M methodology for ever.

Even more importantly, methodological pluralism cannot be defended within [Pm] framework because it faces the same (unsolvable) problem faced by theoretical pluralism: the *lack of positive epistemic reasons*. Epistemic uncertainty is a problem for *any* version of pluralism, be it theoretical or methodological. For these reasons methodological pluralists promote the *elimination* (not the proliferation) of Big-M methodologies. The very expression "methodological pluralism" is misleading in this context and should be replaced by other expressions able to reflect the prevalent *anti-methodological* stance.

A critical assessment of Caldwell's critical pluralism

Caldwell's view on pluralism is remarkable in outlining a new notion of pluralism in the field of economics which has the potential to put an end to the anything goes policy. Although Caldwell gives up the demarcation problem and the search for objective criteria of acceptability of scientific theories [11], he thinks that a role for methodological reflection is still needed [12]. In his view a sound defense of methodological pluralism requires standards for evaluation, even if they must be considerably weaker than the traditional ones. Unsurprisingly, his approach departs in crucial ways from the argumentative structure [Pm], allowing for changes that

are more adequate for economics. His two main features are the following: (a) the essentially open (undefined) character of the pluralities defended, and (b) the advance of other type of positive (non epistemic) reasons in its favour.

Lacking positive *epistemic* reasons for promoting pluralism [13], Caldwell (1988) advances two different sorts of arguments. First, he gives to the proliferation of theories (and, presumably, methods) *provisional negative* support:

"Perhaps the best argument I've heard was suggested by philosophers. Dan Hausman told me to argue that, *given the present disarray in philosophy, I am forced to recommend pluralism as an interim position*". Caldwell is aware that this reason is too weak to be convincing. He said, for instance, that "there is a modesty to this argument that is appealing. But, on the other hand, *it may be a bit too modest*" (our italics, p. 243), and he concludes his article by claiming for a more substantial foundation for pluralism. Though it is uncontestable that invoking this *negative* argument for both forms of pluralism (theoretical and methodological) may be sustained, the kind of pluralism so reached is too weak. *Tolerance* is good but for most pluralists it is not enough [14].

But Caldwell offers a second, this time *positive*, argument for *methodological* pluralism. As we pointed out, structure [Pm] cannot be used for defending theoretical or methodological pluralism (i.e., Big-M methodologies), because epistemic reasons are wanting. But the variables "O" and "X" may be interpreted in another, more promising way. This is what Caldwell does, sustaining that a plurality of *forms of criticism* is a good mean for improving our *economic theories* and our *understanding* of them.

"... the pluralist believes that the primary purpose of methodological work in economics is to enhance our *understanding* of what economic science is all about and, with luck, by so doing, to *improve* it To accomplish these goals, the pluralist undertakes *critical evaluations of the strengths and limitations of various research programs in economics and economic methodology*. In addition, our *understanding* of economics may be enhanced by various descriptive studies, for example, historical studies of the development of ideas, analyses of the sociological milieu in which a research program or discipline develops, and studies of the rhetoric of economics. Whether one wishes to consider such studies as methodological or not seems to me to be a matter of personal taste. Finally, both *novelty* and *criticism* are important to the pluralist. An aphorism that nicely captures the pluralist position is, 'Seek novelty, and continually try to reduce it through criticism'" (Caldwell, 1988, pp. 234,235).

When compared with the instantiation of [Pm] described in section 1, two main changes in Caldwell's position deserves attention. First, the posited goal O is not any more the Truth or the proximity to truth, but a completely different one: it is an increase in our *understanding* of economic *theories* and our capacity for *improving* them. Nothing is said here about our capacity for understanding or improving the *real economy*. Conscious of the many difficulties surrounding truth, no epistemic connection between language (theories) and reality is asserted. Caldwell is unwilling to compromise with the "traditional" idea that criticism will improve our comprehension of the world.

Understood in this restricted form criticism is now targeting a twofold goal. Supposedly, the first aim (namely, to identify the strengths and weaknesses of theories and research programs) is not problematic, because epistemic uncertainty affects our comprehension of the *world*, not our comprehension of its (linguistic) representations. Less clear is what the second goal assigned to criticism (i.e., *improving* our economic theories) may possibly mean. The most direct interpretation is that once its positive and negative properties are unveiled, a corresponding transformation should be undertaken. The positive aspects must be retained or enhanced and the negative ones repaired or eliminated. However, under this interpretation some ambiguities still persist. Does "improving our theories" mean that the changes introduced in economic theories will result in a better representation of *real economies*?, or the improvements are to be understood in a less "realistic" sense and restricted to the economic *discourse*? This second interpretation, more faithful to Caldwell's thinking, can be expressed in this way: *Ceteris paribus*, given a theory T and a set of deficiencies D discovered by the application of some forms of criticism, T is a better theory without D than with D. Not better because it represents more accurately the real world, but because the discourse has been liberated from some undesirable features. It is a *formal* improvement that has no connection with its relation with reality and only affects the language in which the theory is stated. If this were all Caldwell had to say about the role of criticism, it would merely be a weaker version of the many forms of criticism advocated by McCloskey in "Thin and Thick Methodologies".

The second important change made by Caldwell's endorsement of pluralism involves the *nature* of the *plurality* defended. What exactly are the status and the content of his forms of criticism? Having rejected demarcationism, Caldwell is forced to assume that the domain of theories is somehow *given*, and the only task of methodology will be to examine the relative strengths and weaknesses of the theories

advanced, and to suggest ways for improving their formulation. In this sense, his forms of criticism do not work anymore as restrictions in the traditional sense of the term, because they neither delimit the extension of X, nor provide objective criteria for ranking its members according to their merits [15]. His forms of criticism are simply analytical resources for examining each element of X separately.

We are now in a position of presenting in a more formal way the main tenets of Caldwell's pluralism. Assuming that X is a given plurality of theories, and Z* a set of non restrictive forms of criticism, the sort of methodological pluralism advocated by Caldwell may be stated in this way:

Sentence P is an instance of *methodological* pluralism if and only if P meets the two following conditions:

- a) P accepts an existent (or promotes a nonexistent) plurality Z*;
- b) P asserts that Z* is a good mean for increasing our understanding of X's members and for improving them.

We may call this set of requirements structure [Pc] ("c" for Caldwell). When his position is compared with the instantiation of [Pm] presented in section 2, it is evident that Caldwell's methodological pluralism has certain distinctive features worth noting and discussing.

- a) His forms for the assessment of theories substitute either Big-M or small-m methodologies, and, supposedly, they are free from those undesirable features that discredited the ones mentioned in the first place. Particularly, they carry no pretension of universal and a-priori validity. As he said, "... mine was a broader endorsement of criticism, with no attempt made to specify the exact form that it might take until a particular problem-situation was also specified" (Caldwell, 1997, p. 101.)
- b) To be committed to methodological pluralism implies that, given a set of theories X, our understanding of any of its members will be enhanced as long as the number of forms of criticism grows. This conjecture is not controversial, at least from the perspective of the whole community of analysts (who does not face opportunity costs).
- c) Finally, the *content* that Caldwell attributes to his forms of criticism seems to have changed with time. In Caldwell 1982, 1984, his position is rather restrictive as long as he seems to limit the content of his forms of assessment to the ones already identified by traditional methodology:

"In the evaluation and criticism of scientific theories, a number of criteria of appraisal may be employed, depending on the purposes of the theory under question: predictive adequacy, simplicity, generality, heuristic value, mathematical elegance, plausibility, and extensibility are among the criteria commonly mentioned.Criticism can also take place at another level: Popper's distinction between internal and external criticism comes to mind. In short, there are many routes to criticism in the appraisal of scientific theories" (Caldwell, 1984, p. 253).

Caldwell (1988) seems to have incorporated a wider spectrum of forms of criticism. It appears now that *any meta-linguistic consideration* about economic theories that may throw light over them could be considered an appropriate form of criticism. In this sense, traditional methodological considerations are mixed with sociology, psychology and history of science [16]. Methodological pluralism becomes a plurality of meta-scientific approaches, under the presumption that anyone of them sheds light on economic theories and on the practice of economics.

Not everything goes

Even taking all of Caldwell's improvements into consideration, his proposal is still not completely successful and requires more elaboration and some amendments. The remarks made in the last section reveal what seems to be the main gap in Caldwell's defense of pluralism. As mentioned earlier, Caldwell does not have any criteria for ruling out in advance undesirable (improper) theories. Analogously, his forms of criticism are not explicitly defined. Caldwell *describes* some different instances of these forms but no explicit characterization of them is given. This attitude seems to be a consequence of his anti-demarcationist stance. As long as he does not propose methodological or meta-methodological rules for the adequacy of theories or the forms of criticism, his *theoretical* and *methodological* pluralism remains *unrestricted*. To be consistent, Caldwell should welcome the proposal of *any* additional theory or form of assessment.

These results are in contradiction with Caldwell's explicit pronouncements, because he is openly committed to the defense of a *restricted* pluralism. He, as many other authors, opposes anti-methodological stances, which allow unrestricted freedom for the adoption of theories and methods [17], and claims that *there are* quality standards and that they are *needed* if the possibility that everything goes should be excluded [18]. Therefore, Caldwell's forms of criticism have a normative pretense: in some way, surely weaker than in traditional methodology, his forms of criticism intends to work as

restrictions for the scientific (economic) discourse [19]. What kind of constraints they impose? In which sense, different from the traditional one, may these criticisms enforce on the supply of theories compliance with its restrictions?

Suppose we have a given stock of forms of criticism. Can we describe any one of them as a condition that any theory must necessarily fulfill for becoming a member of X? Clearly the answer is NO, because a particular criticism may not be applicable in the case considered. But suppose that *it is* applicable and that the theory examined failed according to this standard: what is the pluralist supposed to do? If he/she decides that the theory should be modified or abandoned, he/she becomes a traditional methodologist. But if no prescription is advanced, what does it mean to sustain a *restrictive* pluralism? In what follows we will suggest possible answers to some of these questions, helping to push the discussion further.

First. At first sight, in Caldwell's view the restrictions imposed on theories by the criticisms do not carry instructions for the economists about how to do their job. They work as *advice*: they point out the existence of some problems (or some favorable points) in the theory, which diminish (or potentially enhance) its value. The criticism suggests courses of action, but it does not make explicit the way in which the problem could be solved or the potential benefits collected. Besides, these criticisms are not compelling. Scientific criticism works like literary criticism: a novel does not lose its literary nature if it contains some deficiencies.

Second. In his discussion with Lawrence Boland about the proper forms of criticism and its usefulness, Caldwell took what seems to imply a harder line of argumentation [20]. Characterizing as "compelling" the only two forms recognized by Boland (impossibility of being true, and falsehood) and "not compelling" the additional forms promoted by himself, Caldwell seems to admit that not all the "advices" have equal force. His own forms of assessment (labeled as "conventions" by Boland) lacked the enforcing property that characterizes the ones defended by Boland. Caldwell did not reject the "compelling" forms. On the contrary, he seems to consider them more foundational (uncontroversial) and more effective than the ones promoted by himself. However, they are not merely advice but something quite stronger, that seems to involve a demarcationist stance. This reflects, to say the least, an ambiguity in his position.

Third. A further difficulty in Caldwell's argumentation should be noted. The two Boland's compelling forms of criticism are remarkably different from one another. To show that a theory cannot possibly be true reveals an *intrinsic* problem in the theory

that demands to be repaired [21]. This seems to be considered a *real* (not dismissible) problem for *any* scientific community or research program, independently of the particular values shared by the communities. Non contradiction is a prerequisite for any critique (especially for internal criticisms). It is a pre-condition for the construction of any descriptive (assertive) language, and so for conversation and understanding. This invests denounce of the presence of a contradiction with a legitimacy that is independent of the recognition of the people that receive it. It is permissible to say that a contradiction in T makes T badly defective, irrespective of the opinion that the proponents of T could have. In this sense the criticism is more than "compelling": it is valid [22]. Of course, it is also compelling as long as those who receive the criticism share the repulse regarding contradictions.

Turning now to the second form of "compelling" criticism, its nature is completely different: to say that a theory is *in fact false* seems to involve some appeal to the beliefs and values of the community who receives the criticism. Insofar as there is no such thing as "the real" or "objective" (neutral) description of reality, those who receive the criticism consider it as being compelling only if they accept the description of the facts that are in contradiction with the theory embraced by them, and endorse an epistemology that admits that theories can be true and appreciate this feature (an instrumentalist would not take such criticisms seriously). Caldwell mixes the two forms of "compelling" criticism probably because he thinks that their acceptance is so widespread into the scientific communities that no one is willing to question such a criticism. He may be right, but a difference remains, which has to be noted: the presence of contradictions is an objective problem for a paper, and should be repaired. Even if somebody who receives the criticism does not share the principle (so it is not compelling for him), it must be considered a valid criticism all the same. The validity of a criticism that claims the theory to be false, instead, depends on many other assumptions (designed to circumvent the Duhem-Quine problem). It is "compelling" only for those who share them.

Fourth. There are other forms of compelling criticism that goes beyond denounce of logical contradictions. This is, we think, what Boland has in mind in his discussion with Caldwell. A paper may promise to do things that it fails to do, or approach questions that later remain unanswered. These too are *objective* problems of the discourse. Caldwell should consider them compelling as well.

Fifth. The last remarks take us to a second sense of "compelling", considerably weaker than the one referred to before. As long as the members of a research

program are committed to an epistemic value or convention, an *internal* criticism can be directed against them, showing that a contradiction between this value and the objective outcomes of the program exists. What any internal criticism shows is the falsity of the personal or collective hypothesis which assumes that the posited theory is able to reach a desired target (that in fact is beyond its possibilities). It is *not* intended to point out an *objective* problem of the theory itself, but a contradiction *among the expectations of its supporters*. Though these forms of criticism are persuasive for those who receive them, they lack the strength of the "really compelling" criticisms. However different as they are, both types of compelling assessment claim for action: unless it can be shown that the criticism misses its point, something should be done. The alleged deficiency must be repaired.

Sixth. The nature of the criticisms examined in points second-to-fifth seems to be considerably stronger than the "advices" mentioned at first, which seems to show an ambiguity in Caldwell's notion of restrictions. Here a twofold problem arises. On the one hand, these stronger types of criticisms go beyond the tolerant position which Caldwell is explicitly committed to. On the other hand, his mild forms of criticism seem to be too weak as long as they apply just to the discourse and are crucially depending on the values of the particular community who receives the criticism. If a theory fall short of some desiderata, like elegance or simplicity, this type of criticism is not "universally" compelling: only some communities (maybe small ones) would take it seriously and be engaged in transformations along the course suggested.

Conclusions

Scientific theories are specialized languages for approaching some type of problems considered relevant from the standpoint of the scientific communities. Most sciences share a relatively unified discourse, but in economics (putting apart orthodox economics in which a wide consensus exist) several different and partially incompatible discourses coexist, each of them claiming to be a correct (sometimes the only correct) explanation of economic phenomena. This is one of the reasons why a concern about the necessity of some criteria for judging economic discourses is rising.

Due probably to the spread diffidence that most economists experience about Popperian and empiricist's views of science, some authors reject the imposition of any epistemic or linguistic criteria for the assessment of economic discourses –

fostering what Dow called Babylonian Thought- and have adopted the ontological prescription that real economies should be modeled as open systems.

As a sign of the many difficulties entailed by this debate, some heterodox economists objects the Babylonian approach on the ground that it could pave the way for too many unnecessary (and probably wrong) points of view. Holt (2007), for instance, fears that Dow's proposal could give green light to the anything goes policy in economics. On the other hand, some critics of mainstream economics advanced a different sort of substantive requirements for scientific credentials. In this vein, Davidson (1999) claims that Keynesian economics, founded on uncertainty and non-ergodic environments, affords the only scientific (true) way of doing economics, a point of view that has been widely objected (King, 2004).

The present work is a defense of the necessity of putting some restrains on pluralism. In our view such restrictions should be independent of ontological (metaphysical) considerations and basically consist in argumentative conditions imposed at the level of economic discourse. To accomplish this task we have profited from the valuable contributions of Mäki, Caldwell and Boland as a point of departure of our analysis and suggestions.

We have argued that a framework for discussing pluralism is necessary for clarifying its conceptual difficulties and misunderstandings. Mäki's frame has provided to be useful for starting the discussion but it was found too compromised by demarcationism. Caldwell's proposal has no explicit links with demarcationism, but it shows some ambiguities and the restrictions enforced by his several forms of criticism apply only to the discourses in which theories are expressed. Consequently, his pluralism does not claim any connection with the real economies. We also saw that there are two different types of criticisms with unequal force. Particularly, we argued that the compelling forms of criticism are extremely important for pluralism. The requirement of non contradiction should be considered a sort of Methodological Principle for pluralists: to take advantage of other points of view and become engaged in a fruitful conversation with other people, all parties should endorse the non contradiction principle. Logical contradictions destroy communication.

But one may ask why people should be merely interested in an improvement of discourse after all. A more realistic interpretation (that we may only outline here) is still possible and seems to be needed to give sense to the practice of criticism. Although having no positive epistemic reasons to believe that any modification of

theories in the suggested way will take us closer to the truth, it is plausible to think that these changes do assure that a *necessary* condition for that has been accomplished. A discourse improved through the application of criticism has better chances of making a substantial contribution to our understanding of the economy than a formally defective one. It is a conjecture that may be enunciated in this way:

Ceteris paribus, if T is a theory and D are some of its deficiencies, it is more probable that T helps us to understand the workings of the real economy (and suggests us ways of improving it) without D than with it.

Our capacity to understand theories may be transformed in a capacity to understand how the real economy works and how to act efficiently upon it. This is a more ambitious claim than the one explicitly stated by Caldwell. But we think that without this further step the whole project of theory transformation through criticism risks to become a purposeless activity. If you are a completely anti-modernist economist trapped within the bubble of language, why waste your time guessing “explanatory” economic mechanisms? Writing science fiction or novels is surely more fun.

Endnotes

[1] Minsky (1974, p. 7) criticizes Davidson because he “does not break with the equilibrium growth vision that underlies standard theory...” In fact, he “is wedded to the idea that the economic process can be characterized by sustainable equilibriums” (ibid, p. 11).

[2] “Davidson long ago adopted the endogenous approach to money, but emphasized that money can be introduced to the economy through two distinct processes, the portfolio-change process and the income-generating finance process. The first of these processes is more similar to the orthodox exogenous money approach: the central bank increases reserves, which changes interest rates and induces subsequent portfolio adjustments. Many Post Keynesians adopt a more radical “Horizontalist” approach that insists that central banks cannot determine the quantity of reserves; open market operations and discount window operations are defensive in nature, with the central bank only able to determine the price at which reserves will be supplied..... Banks set retail loan and deposit interest rates relative to the central bank’s target rate (the fed funds rate in the US) and then accommodate the demand for loans and accept the supply of deposits at those administered rates. The money

supply is thus said to be “horizontal” at the loan rate of interest. Davidson has argued (primarily at conferences) that this downplays the importance of portfolio changes as well as the influence that this might have on loan interest rates and the willingness to lend” (Holt, Rosser and Wray, 1998).

[3] The Journal of Philosophical Economics Volume 1 Issue 2 (2008).

[4] Lawson (1997, p. 14), seems to defend the project of drawing a demarcation line between science and not science. He says that “Caldwell, along with many others, seems to want to reject, or anyway – in refusing to deal with the ‘demarcation problem’- abandon, the idea of achieving an evaluative stance through examining what means to be scientific. My own view, in contrast, is that foreclosing this line of pursuit is not only without good reason, but succeeds in fencing off the path that, in the light of recent developments in the philosophy of science, appears particularly likely to bear fruit”. However, his criterion for distinguishing among good and bad science is mainly *ontological* in nature: good social science (particularly, economics) should be committed to open systems. There are many different *substantive* criteria of demarcation. Davidson (2004), for instance, seems to think that any fruitful development of economics should rest only on Keynes’s vision. In contrast, our line of argumentation in this paper emphasizes epistemological and linguistic factors. In our view, “not anything goes” means that there are certain formal constraints that must command the argumentation.

[5] For many pluralists a *positive attitude* that reclaims a live interest in the many different points of view and is designated as *engagement* is demanded. We will not discuss this stronger disposition here. It was examined in an early paper read in the ICAPE Conference, June - 2007.

[6] See Mäki, 1997.

[7] Warren Samuels (1997), for instance, uses “methodological pluralism” in such a broad sense that he includes a particular vision of knowledge, science and (even) the world. The specification of which plurality one is committed to is important because it is possible to be pluralist in some regards and not to be pluralist in another ones. Such specification is also important because the reasons that should be given in its favor must be specific enough for connecting the referred plurality with some posited goal. Again, it is possible that the reasons for defending plurality A could not be used in the defense of another plurality B. Reasons are not multipurpose. Their soundness crucially depends on the kind of plurality to which they applies.

[8] Those who keep themselves loyal to theoretical pluralism may only offer *negative* reasons in its favour, and, consequently, their arguments cannot be counted as reasons in the specific sense of the term used in [Pm]. The epistemic ignorance invoked by Caldwell is a case in point.

[9] "...the disenchantment about the possibility of solving traditional methodological problems such as demarcation and theory choice is one of the primary sources of pleas for methodological pluralism" (Andrea Salanti, 1997, p. 4).

[10] Caldwell turns Popperian fallibilism against itself (and against any intent of developing the demarcationist research program): "The approach to economic methodology advocated here is labeled 'methodological pluralism' because it takes as starting assumption that no universally applicable, logically compelling method of theory appraisal exists. (Or, more correctly, even if it exists, we can never be sure that we have found it, even if we have)." (Caldwell, 1982, p. 245).

[11] "There are many roads to criticism. Pluralists employ as many as they are able to find. Their purpose is not to demarcate, nor to find the 'best' theory by comparing rival theories against a set of immutable standards..." (Caldwell, 1988, p. 240).

[12] However, it should be noted that "Methodology" is a word that in the traditional usage is strongly connected with 'Truth' and as such does not reflect properly the new semantics that Caldwell tries to attach to it. So, *methodology* (without epistemic foundations) should be better understood in the remainder of this paper as a set of "forms of criticism".

[13] "Methodological pluralism makes no epistemological claims; it is not grounded in any theory of truth" (Caldwell, 1988, p. 241).

[14] Negative reasons are troublesome. They may be masqueraded as positive reasons: pluralism must endorse a 'positive valuing of a diversity of views in the minimal sense that one who is so committed would not want to reduce the number of available narratives or views' (Shaun Hargreaves-Heap, 2001, p. 356; quoted in Robert Garnett, 2006, p. 527). Referring to Esther-Mirjam Sent (2003), Garnett pointed out another danger of negative reasons: "a pluralism whose rationale is transitory, such as a temporary state of incomplete or uncertain knowledge" may "slide" to monism (Garnett, 2006, p. 530).

[15] That means that the only ranking possible is between T and T-D, not between T and T', as long as T' is a competing theory of T.

[16] Caldwell, 1988, pp 234-5; 239-40.

[17] "McCloskey's pluralism ... promotes critical exchange and accountability among academic knowledge producers, not 'anything goes.' This is a constant refrain in McCloskey's writings. She does not assume that all knowledge claims are (or should be treated as) equally valid" (Garnett, 2006, p. 533). "Once diverse approaches to inquiry have become established, it is necessary to make discriminating judgments among and between them... To say that the disciplines should simply practice mutual toleration, permitting practitioners to do whatever they want to do, seems, to the wary outsider, little more than the self-protecting and self-satisfied corruption of the gild. The members of a scientific community would seem to have a collective responsibility for the quality of their product. It is the counterpart of their right of autonomy, and it implies the application of general and clear criteria of scholarly excellence and reliable knowledge" (Anderson, 1987, p. 354).

[18] In this paper we do not have too much to say about how to put some limits to the proliferation of forms of criticism, but we desire to rejoinder what seems to be an obvious point: at the very least no mutually incompatible forms of criticism should be allowed. Our understanding of theories would be severely damaged using criteria which make opposite "advices" for modifying them. Unity and coherence in set Z^* seems to be necessary. However, our main concern here is *methodological* (not meta-methodological) pluralism.

[19] "... I have always believed that pluralism requires constraints, and even changed the name of my position (from 'methodological pluralism' to 'critical pluralism') to emphasize the nature of one of the most important of the constraints: criticism" (Caldwell, 1997, p. 101).

[20] The confrontation may be found in Boland (1981, 1984) and Caldwell (1984).

[21] We are interpreting here the expression "impossibility to be true" as "logically contradictory", though Boland seems to have much more in mind. Nonetheless the meaning that we pick up is at least part of the conditions that make the truth of any assertion "impossible".

[22] Distinguishing among pluralism at the level of institutions and at the individual level, Hodgson says that "there is much to be said for tolerance of many different and even antagonistic research programmes within a department, university or nation. But we should not tolerate the existence of inconsistent ideas

within our own heads. The role of diversity is not to sanctify or foster contradiction. Tolerance of the right of a scientist to practice, even when we may disagree with his or her views, does not imply tolerance of any method and proposition. The policy toward science must be pluralistic and tolerant, but science itself cannot be so. Pluralism does not mean that 'anything goes' (Hodgson, 1997, pp. 148-49).

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