

2. The one world and the many theories

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1. INTRODUCTION

'Pluralism' has become a popular label amongst those who are not entirely comfortable with what they see as the prevailing situation in economics. As is so typical of many other similar labels, it is not at all clear what is behind it. It is not clear what people mean when they say they advocate pluralism in economics. Not only is it seldom recognized that pluralism proper comes in different kinds and different degrees, it is also easily conflated with the simpler notion of plurality. The following remarks are intended to provide a sketch of two endeavours: first, a partial clarification of the very concept of pluralism; second, a defence of pluralism about theories.

My title hints at a principle – let us call it the 'one world principle' – which I take as imposing a constraint upon the sorts of pluralisms I am willing to espouse. Provided there is only one world – or only one way the world is – pluralism about the world is not acceptable. On the other hand, the actually and potentially obtaining plurality of theories – also referred to in my title – can be justified, hence pluralism about theories is acceptable. This paper is an attempt to outline a systematic justification for theoretical plurality in economics without succumbing to ontological pluralism.

2. PLURALITIES AND PLURALISMS

When considering the issue of pluralism, the proper place to begin is the more primitive notion of plurality, since the notion of pluralism presupposes that of plurality. We can say that the *plurality of Xs* is a situation where *X* exists in the plural; there is (where 'is' can take on the meaning of 'is actually', 'is potentially', 'is hopefully') more than one (actual, potential or desired) value for *X*. Let us look at some of the typical items which may be claimed or required to exist in the plural. In the expression 'plurality of Xs', *X* may be specified in a number of ways, which gives us pluralities such as the following:

- Ontological plurality - world
- Veristic plurality - truth
- Intensional plurality - meaning
- Theoretical plurality - theory
- Linguistic plurality - language of formulating theories
- Epistemological plurality - way of rationally justifying theories or beliefs in them
- Pragmatic plurality - aim, question, problem
- Methodological plurality - method, criterion, standard
- Meta-methodological plurality - methodology
- Axiological plurality - value
- Ethical plurality - moral value
- Ideological plurality - ideology

The list of pluralities can easily be extended beyond those cited above, but it would be unnecessary for the purposes of our discussion. The important next step is to consider the nature of the distinction between the plurality of Xs and *pluralism about X*. An obvious way of characterizing the difference between the two is to say that pluralism is a theory or principle that justifies or legitimizes or prescribes the plurality of items of some sort. Whenever the plurality of Xs constitutes an issue, pluralism about Xs or its denial is an attempt to settle the issue.

A list of pluralisms can be created in the same way as the list of pluralities was constructed above. Thus, we have ontological, veristic, intensional, theoretical, linguistic, epistemological, pragmatic, methodological, meta-methodological, and axiological pluralisms about world, truth, meaning, theory, language, knowledge acquisition, problem and goal, method and standard, methodology, value, etc.

A statement about plurality is descriptive in character, while pluralism has a normative connotation. It is one thing to say that a plurality of items obtains or does not obtain in fact, and quite another to argue that it is fine that such a plurality obtains or that such a plurality should obtain.¹

We have above implied a further distinction between *actual plurality* and *non-actual plurality*. In the former case, the relationship between plurality and pluralism is this: a plurality of Xs (which actually obtains) is *justified* by pluralism about X. For example, one may argue that the actually prevailing multiplicity of approaches in business studies is an applaudable state of affairs. In the latter case, the relationship is as follows: a plurality of Xs (which does not actually obtain) is *prescribed* by pluralism about X. For instance, one may argue that there is little or no plurality of fundamental theories exhibited in mainstream economics journals, and that there should be more of it.

Pluralism involves arguments or reasons for plurality. This adds a further element to the picture: pluralism about X is based on reasons Y . The reasons for which a given type of pluralism and hence plurality, can be defended may be of various kinds, from ontological or epistemological to aesthetic or moral.

Combining the various values of X and Y we then get a number of different pluralisms which either justify actually obtaining pluralities or require actually non-obtaining pluralities for different reasons. Let us gather these elements together in the following definition:

Pluralism. P is an instance of pluralism about X if and only if it is a theory or principle which either justifies an actually obtaining plurality of X s or prescribes an actually non-obtaining plurality of X s by appealing to reasons Y .

It is obvious that one may have reasons such that they neither justify an actually obtaining plurality of X s (because such a plurality does not actually obtain) nor prescribe that such a plurality should obtain (since it cannot obtain). As an example, hard-boiled realists claim to have reasons that preclude ontological and veristic pluralism: a plurality of worlds and truths does not and cannot obtain (to avoid misunderstandings, this idea will be qualified in the next section).

Now that we have come some way to clarifying the basic conceptual setting of the general issue of pluralism, we can specify the particular issue that will concern us in the following. Our X will be theory, and our reasons Y will be mainly ontological and epistemological reasons. In other words, we will be concerned with theoretical pluralism. Whenever a plurality of theories actually obtains, we will ask whether there are good ontological or epistemological reasons which would justify this situation; whenever a plurality of theories does not obtain, we ask whether there are good ontological or epistemological reasons requiring that a plurality of theories should obtain.

3. ONTOLOGICAL AND SEMANTIC PRELIMINARIES

Before entering the issue of theoretical pluralism it is very important that we understand what is implied by a denial of pluralism about the world and of pluralism about truth. Indeed, our reasons involve the kind of realism that implies the denial of both ontological and veristic pluralism and hence a plurality of worlds and truths.

In a sense, it is trivially true that the world is plural in that it has many facets. The world is constituted by an infinite number of things and their properties, including their behavioural features. Yet it seems possible to say that the world is one in a sense that the many theories we hold do not each

create worlds of their own; plurality of theories does not imply plurality of worlds, but rather the many theories are about the one world. This is consistent with saying that the one and only world consists of a huge number of things and properties and processes and potentialities, and also that the world appears in a vast number of ways to an observer or a set of observers viewing it from different perspectives. The one world principle is consistent with a plurality of theories. The denial of ontological pluralism implies that the many facets of the world are discovered rather than created by means of the many theories and perspectives. For example, fixprice theories and flexprice theories do not create fixprice and flexprice worlds, but at most help to illuminate features of the one and only world.²

It is also trivially the case that truth is plural in the sense that there is or can be an infinite number of true sentences (or propositions, utterances, beliefs) about the world, each illuminating one aspect or feature of the world and its constituents. However, this does not imply veristic pluralism. To put it in a manner that requires careful qualifications, the denial of veristic pluralism implies that for each question, pragmatically and semantically so circumscribed that it amounts to one unambiguous question, there is only one correct answer. For instance, the denial of veristic pluralism implies that there is only one correct answer to questions such as 'Did Adam Smith write *Foundations of Economic Analysis*?' or 'Do economic agents have perfect information?'

4. THEORIES AS SUBSTITUTES AND COMPLEMENTS

Let us then try to clarify some sorts of theoretical plurality and some reasons that we might have for justifying or recommending the plurality of theories in economics. The plurality of theories actually obtains, but not all economists are happy about its extent and nature. How should the actually obtaining plurality and the desired plurality be characterized? What are the related forms of pluralism and their presuppositions?

We begin with two intuitively simple ideas. The first is the distinction between *nothing but the truth* and *the whole truth*. Economists have a habit of occasionally conflating these two notions, but it is important to keep them separate. The second is the idea that theories can be *substitutes* or *complements* with respect to one another. It is typical of economists to conflate these two cases, too. These two ideas can then be combined in a formulation of two different cases of theoretical plurality. First, a multitude of theories may be based on their being substitutes, being *rival claims to nothing but the truth*. Second, a multitude of theories may be based on their being complements, being *complementary claims to parts of the whole truth*. These simple ideas

have to be developed further to see what kinds of reasons there may be for theoretical pluralism.

Let us then note the obvious idea that the apparent claims of a given theory or model are not all equally important or central to the description the theory gives of the world; some claims are more central than others. This idea suggests a simple distinction between two kinds of claims; let us call them the *core claims* of a theory and the *peripheral claims* of a theory. Intuitively, this distinction would seem to be exemplified by claims about gravity as opposed to claims about a vacuum in an account of the behaviour of a falling body; and claims about maximization as opposed to claims about the perfect divisibility of goods in an account of the behaviour of economic agents and markets (granting that such classifications are often very contestable).

The distinction between core claims and peripheral claims can be based on pragmatic or ontological considerations or both: the distinction may be due to a methodological decision to treat certain components of theory differently from others, or it may be due to beliefs concerning the objective constitution of the domain of reality being studied. Let us consider the distinction as ontologically grounded.

We may say that in some cases at least, the core claims and peripheral claims of a theory are supposed to have ontological correlates: the core claims purport to be about the *ontic core*, while the peripheral claims are purportedly about the *ontic periphery* of the domain of the theory. One specific version of the distinction between the ontic core and the ontic periphery is the one between major causes and minor causes that we find in J.S. Mill.

We can now develop the idea of theories being substitutes and complements by giving the following definitions:

- *Strong substitute.* Two or more theories are strong substitutes if and only if they contain rival core claims to nothing but the truth about the ontic core.
- *Weak substitute.* Two or more theories are weak substitutes if and only if they contain rival peripheral claims to nothing but the truth about the ontic periphery.
- *Strong complement.* Two or more theories are strong complements if and only if they contain complementary core claims to parts of the whole truth about the ontic core.
- *Weak complement.* Two or more theories are weak complements if and only if they contain complementary peripheral claims to parts of the whole truth about the ontic periphery.

Keeping to the one world principle, we may now say that there are good *ontological* and *veristic* reasons for a plurality of theories if these theories are

strong or weak complements. Such theories do not make conflicting claims about the world, on the contrary, they are supposed to supplement one another. On the other hand, it is less obvious that theoretical plurality can be defended on ontological and veristic grounds if the many theories are strong or weak substitutes. If there is only one way the world is, two or more theories making mutually inconsistent claims about the world cannot all be true at the same time. There is genuine conflict between such theories.

The situation is different in regard to *epistemological* considerations. Given the radical epistemic uncertainty that characterizes economics, there seem to be good epistemological reasons for plurality of theories in all four cases above, including the cases of strong and weak substitutes. Familiar problems related to the availability of relevant evidence and the reliability of testing constitute an example of why the exclusion of rival claims to nothing but the truth involves major risks. There is the further consideration that for similar reasons of epistemic uncertainty it is often difficult to tell theory complements from theory substitutes so as to sort them out for differential treatment from the point of view of pluralism.

5. ABSOLUTE AND RELATIVE PLURALISM

In economics as well as elsewhere, theories seem to be regarded much more often as strong or weak substitutes or as weak complements than as strong complements. A synthesis of strong complements often constitutes a major breakthrough in scientific progress. So does the replacement of a dominant theory by its strong substitute. The replacement of a theory by its weak substitute or weak complement constitutes a less significant episode in the development of a discipline. Indeed, the adjustment of weak complements seems to constitute a major activity in normal research in conventional economics.

These dynamic considerations are important since they are related to differences between kinds of pluralism. One can be a *temporary pluralist* with respect to a specific historical situation without being a *permanent pluralist* irrespective of the historical situation at hand. For example, Thomas Kuhn's theory of the structure of scientific revolutions can be interpreted as involving temporary pluralism about strong substitutes; it involves pluralism about extraordinary research but not about normal research (this has to be taken with the proviso that Kuhn's theory does not easily lend itself to the sort of ontologically inspired account that we have attempted above).

Temporary pluralism is a temporal version of *relative pluralism*, while permanent pluralism is a temporal version of *absolute pluralism*. Someone may endorse absolute pluralism, that is, pluralism irrespective of anything else. Some others, such as myself, hold relative pluralism, that is, pluralism

relative to certain conditions. For example, (I) am willing to accept pluralism relative to a certain epistemic situation in economics; it may be that at some point in time, such as now, the epistemic standing of economic theories is such that we had better tolerate a number of strong substitutes at the same time; it may be that our epistemological and methodological understanding of how to find out the best way of theorizing about the economy falls short of the demands that economists are expected to fulfill. Pluralism may be a wise strategy in such a situation. Let us summarize these notions in the form of the following definitions:

- *Relative pluralism.* P is an instance of relative pluralism if and only if P is pluralism relative to a limited set of conditions.
- *Absolute pluralism.* P is an instance of absolute pluralism if and only if P is pluralism relative to all possible conditions.
- *Temporary pluralism.* P is an instance of temporary pluralism if and only if P is pluralism relative to a limited set of time periods.
- *Permanent pluralism.* P is an instance of permanent pluralism if and only if P is pluralism relative to all times.

6. STRATEGIES WITH RESPECT TO THEORETICAL PLURALITY

The scientific process is characterized by two partly opposing tendencies. On the one hand, scientists, among them economists, do their best to invent new theories and get them accepted by their fellow scientists. This often leads to a tendency towards greater plurality of theories. The reasons for this tendency are several, including the fact that novelty is often valued for its own sake. There are always constraints on theoretical novelty, but the character and strength of such constraints vary from discipline to discipline and from one phase of development to another. An aspect of this is that the nature of novelty which is valued varies similarly. However, there are reasons for the first tendency which are in some cases related to the second tendency, that of scientists persistently trying to reduce theoretical plurality. Let us briefly consider conditions under which these tendencies obtain.

Obviously, when two or more theories are identified as rival *substitutes*, scientists tend to defend the ones they endorse and, depending on the structure of the field, either to ignore other theories or to try to eliminate them by arguing that they are mistaken. These two approaches to rival theories have consequences for theoretical plurality. *The strategy of negligence* gives support to whatever plurality of theories prevails, while *the strategy of elimination* aims at reducing the number of theories, with or without success.

- *Strategy of negligence.* Practitioners follow the strategy of negligence if and only if they ignore rival theory substitutes, thus supporting the prevailing plurality of theories.
- *Strategy of elimination.* Practitioners follow the strategy of elimination if and only if they try to get rival theory substitutes rejected, thus reducing the plurality of theories.

We may then conjecture that in fields or subfields where the number of theory substitutes is large, practitioners tend to adopt the strategy of negligence, that is, they ignore theories that conflict with those they endorse, *ceteris paribus*. On the other hand, in fields or subfields where the number of theory substitutes is small, practitioners tend to adopt the strategy of elimination, that is, theory substitutes tend to be taken more seriously and attempts tend to be made to eliminate them, *ceteris paribus*. It seems that both cases can be found in economics.

When two or more theories are identified as *complements*, there are again several alternative responses to the situation. The first is to accept the situation as it is and to employ the theories for whatever purpose they seem to serve best, based on the principle of *division of labour*. This strategy tends to retain the plurality of complementary theories. The second strategy is to try to integrate the complementary theories by following the principle of *vector addition* or something similar. The idea is that each complementary theory is taken to identify a separate force or factor that has an impact on the phenomenon under study, and the total effect can be calculated by adding up the separate effects. The third strategy is to pursue integration of the complementary theories by attempting to unify the theories and their subject matters within a more fundamental theoretical framework. This is the principle of *unification*. The unifying theory is taken to be more fundamental in the sense that the objects of the complementary theories are believed to be moments or phases or manifestations of the objects of the more fundamental theory. These two latter strategies involve assigning a subordinate status to some theories. Let us summarize:

- *Strategy of division of labour.* According to the principle of division of labour, practitioners use each theory complement for whatever purpose it seems to serve best, thus supporting the prevailing plurality of theories.
- *Strategy of vector addition.* According to the principle of vector addition, practitioners integrate theory complements by adding up the components they represent, thus supporting the prevailing plurality of theories while subordinating them to the total representation.
- *Strategy of unification.* According to the principle of unification, prac-

tioners integrate theory complements by unifying them in terms of a more fundamental framework, thus reducing the plurality of theories or assigning a subordinate status to some of them.

It is also notable that the implementation of the strategies of vector addition and unification, if at all permitted by the attendant difficulties, typically presupposes revision of component theories.

7. DEGREES OF PLURALISM

In the foregoing, we have discussed plurality and pluralism as if they were simple dichotomous notions; either one has them or one hasn't. In fact, it often seems important to think of them in terms of degrees; one may have more or less of them. The notion of degree of plurality and pluralism appears to be a useful one. This notion appears in several forms which define different dimensions or scales on which the degree varies.

To begin, we have already encountered the ontologically based idea of theories being substitutes or complements. We may now say that there is a scale on which the degree of pluralism is higher in the case of substitutes than in the case of complements. In other words, toleration of rival claims to nothing but the truth is more demanding than toleration of complementary claims to parts of the whole truth. Furthermore, the strong cases of substitutionality and complementarity generate higher degrees of pluralism than the weak cases, because the risks related to the core claims of a theory are higher than those involved in its peripheral claims. Let us formulate the idea in the case of these two dimensions:

- *Degree of pluralism 1.* The degree of pluralism about theory is higher if the two or more theories in question are substitutes than if they are complements.
- *Degree of pluralism 2.* The degree of pluralism about theory is higher if the two or more theories in question are strong substitutes or complements than if they are weak substitutes or complements.

There are other dimensions related to the number of theories and the distribution of their endorsement. First, one may say that the larger the number of theories, each endorsed by at least one economist, the higher the degree of plurality and pluralism. At one extreme, were all economists to endorse one and the same theory, the degree of pluralism would be at its minimum. Note that there is no clearly defined other extreme, such as there being as many theories endorsed as there are economists; this is because each economist

may endorse a very large number of theories, to the extent that his or her capacity allows.

Second, one may say that the more even the distribution of endorsement of theories within economics, the higher the degree of plurality and pluralism. At one extreme, all economists except one lonely heretic endorse one theory, while this remaining dissenter alone endorses a different theory. The distribution of endorsement is maximally uneven and the degree of pluralism is at its smallest. At the other extreme, all theories – which are two or more in number – are each endorsed by the same number of economists. The distribution of endorsement is maximally even and the degree of pluralism is at its greatest. Let us summarize:

- *Degree of pluralism 3.* The larger the favoured number of theories endorsed, the higher the degree of pluralism about theory.
- *Degree of pluralism 4.* The greater the favoured evenness of the distribution of endorsement between theories, the higher the degree of pluralism about theory

With these definitions, it should be obvious that it would be difficult to defend the idea that the higher the degree of pluralism, the better. It may be the case that there is an optimum degree of plurality well below the maximum degree; an adequate form of pluralism has to be able to justify or prescribe this optimum degree. It is likely that there is a limit to a functional number of theories, and that some unevenness of the distribution of endorsement is functional for the advancement of economics.

In any case, I think we are now approaching some of the key issues which explain why the idea of pluralism is nowadays found to be so important by economists who do not identify themselves as mainstream economists. To see this, at least one more step has to be taken. It seems that those who speak in favour of pluralism do not mean to imply that they necessarily prefer the maximum degree of pluralism 3 or the maximum degree of pluralism 4. They are not only concerned about the number of theories endorsed or the evenness of the distribution of endorsement, but also, and emphatically, about the distribution of what may be called the academic power attached to theories. By 'academic power' I mean the amount of relevant resources (relating to publishing, promotion, prestige, etc.) controlled by the endorsers of particular theories. The idea of the degree of pluralism can now be linked to the variation in the evenness of the distribution of academic power. We may state the following.

- *Degree of pluralism 5.* The greater the favoured evenness of the distribution of academic power attached to the endorsement of theories, the higher the degree of pluralism about theory.

Again, one may well accept that there are limits to a reasonable degree of pluralism in this sense, and yet insist that the economics profession should advocate a higher degree of pluralism than currently seems to be the case.

8. CONCLUSION

The foregoing exercise has attempted to serve two purposes. First, it has sought conceptual clarity about some aspects of the issue of pluralism in economics. More specifically, I have suggested that pluralism and plurality have to be kept separate and that the concept of pluralism has to be defined in terms of plurality; pluralism is a theory or statement about plurality. I have suggested distinctions between pluralisms about different things; between absolute and relative (and permanent and temporary) pluralism; and between degrees of pluralism on various dimensions.

The second purpose has been to outline a defence of pluralism about theory in ontological and epistemological terms, constrained by the One World Principle. This defence was sketched in terms of theory substitutes and theory complements. The defence was further qualified in terms of relative and absolute pluralism; different strategies that can be followed with respect to theory substitutes and complements; and degrees of pluralism.

My focus has been on pluralism about theory while rejecting pluralism about the world and truth; hence 'the one world and the many theories'. These and other forms of pluralism (such as epistemological and linguistic pluralism) need to be clarified and scrutinized carefully before any justified positions for or against them comes forth in conversations among the Econ.

NOTES

1. However, in the ontological and veristic cases, plurality and pluralism seem to be more closely connected. If one states that there are multiple realities and multiple truths, one commits oneself to a pluralism about reality and truth. On the other hand, if one says that a multitude of theories and methods obtains, this does not yet imply pluralism about theories and methods.
2. For some purposes, it may be useful to employ the notion of thought world or model world, and keep it separate from the real world. Thought worlds are indeed created by means of theories, which means that they exist in a different sense from the real world which exists unconstituted by acts of theorizing. Of course, those aspects of the real world that are of interest to a social scientist, are often subjectively and even theoretically constituted by the agents of social processes. This, however, is consistent with their being irreducible to the thought worlds of an economist. Importantly, pluralism about thought worlds is consistent with the denial of pluralism about the real world.