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Post Keynesianism, Heterodoxy and Mainstream Economics

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ABSTRACT *After briefly presenting the concepts of orthodox, mainstream and heterodox economics, and applying them to the contemporary period, this article discusses the Post Keynesian school and its relation to contemporary orthodox and mainstream economics. While opposed to the neoclassical orthodoxy, the Post Keynesian school has some positive unifying ideas, although some internal tensions remain. There are also some overlaps between Post Keynesianism and other approaches, and a careful combination of contributions from different approaches and different disciplines is not only possible, but also necessary. Post Keynesianism is located outside current mainstream economics, although this argument partly depends on a more precise specification of the concept of uncertainty. The non-mainstream character of Post Keynesian economics has at least two types of important implications. The first involves the approach's ability to influence the economy and the danger of 'the scholastic fallacy'; the second refers to a reproductive difficulty inside academia.*

1. Introduction

An interesting debate has emerged in recent years regarding the concepts and the intellectual contents of orthodox, heterodox and mainstream economics. To a large extent, this debate has been motivated by changes in the mainstream. Post Keynesian economics is part of this discussion. It has been identified as opposed to neoclassical economics, but also accused of not being united around anything positive beyond this negative stance. Some Post Keynesians have responded that the approach has moved toward coherence. What is Post Keynesian economics nowadays? Does it encompass conflicting ideas? How does it and how should it relate to other non-neoclassical approaches? Have the changes in mainstream economics implied any changes in its relation to Post Keynesianism? Does Post Keynesian economics remain outside the mainstream? If so, what does this imply? These are the main questions addressed in this article.

The article is structured as follows. Based on Dequech (2007 – 08), it begins by briefly presenting, in the next section, the concepts of orthodox, mainstream

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and heterodox economics, and applying these concepts to the contemporary period. The third section discusses the concept of Post Keynesian economics, based on some unifying positive ideas, while the fourth section points out some remaining tensions within the Post Keynesian camp. The fifth section indicates some overlaps between Post Keynesianism and other approaches before arguing for a careful combination of contributions from different approaches and different disciplines. The sixth section maintains that Post Keynesianism is located outside mainstream economics, although this argument is shown to partly depend on a more precise specification of the concept of uncertainty. In the seventh section, some important implications of the non-mainstream character of Post Keynesian economics are discussed. This is followed by concluding remarks.

2. Orthodox, Mainstream and Heterodox Economics: Concepts and Application

2.1. Orthodox Economics

A useful concept of orthodox economics has been provided by David Colander, Richard Holt & Barkley Rosser (2004, p. 490): 'orthodox is primarily an intellectual category [as distinct from a sociological one]. . . . Orthodox generally refers to what historians of economic thought have classified as the most recent dominant "school of thought."' Although the reference to domination implies a sociological aspect, it is a particular set of ideas that defines a school of thought.

In the current period, orthodox economics corresponds to neoclassical economics, which, in turn, is defined here as based on the combination of the following ideas: (a) the assumption of rationality in the specific form of utility maximization; (b) the assumption that the economy or economic section under investigation is in equilibrium or tends toward an equilibrium, which may be unique or one among multiple possible equilibria; (c) the adoption of a concept of uncertainty that is compatible with the utility maximization hypothesis, which has been presented in an axiomatic form since the 1940s.[1]

2.2. Mainstream Economics

Mainstream economics is that which is taught in the most prestigious universities and colleges, gets published in the most prestigious journals, receives funds from the most important research foundations, and wins the most distinguished awards. This is a sociological concept (less restrictive than the one adopted by Colander, Holt & Rosser). Mainstream economics is a set of ideas, but, unlike the orthodoxy, it does not need to correspond to any particular school of thought. More broadly, it does not have to be internally consistent.

[1]This neoclassical concept can be extended to incorporate ambiguity, provided that ambiguity is formalized in terms of utility maximization; see Dequech (2011) for a discussion of these and other types of uncertainty.

In the contemporary period, from the 1990s to the present, mainstream economics still includes a neoclassical subset, but is not reduced to it. Among the non-neoclassical approaches that have been incorporated into the current mainstream one can include: behavioral economics, part of experimental economics, part of the new institutional economics, evolutionary game theory, part of the Santa Fe Institute complexity approach, and some formal alternatives to standard expected utility theory dealing with what they often call Knightian uncertainty. The best candidate for a unifying feature of current mainstream economics is the belief in mathematical formalization as *the* criterion for scientific rigor. This belief may, however, fail to distinguish mainstream from some subsets of non-mainstream economics, even if it is a unifying feature of the former. Nor does this stance on methodology or any other set of ideas define mainstream economics. As mentioned above, its defining features are academic prestige and influence.

2.3. Heterodox Economics

The mainstream and the orthodoxy do not need to always coincide. Heterodox economics is therefore particularly difficult to define. As a general concept, in the sense of one that can be applied to any period of time, heterodox economics must be defined negatively, as that which it is not. There are, however, two alternatives: it can be defined in contrast either to orthodox or to mainstream economics. Like its respective opposite, heterodox economics would be mainly an intellectual category, in the former case, or a sociological category, in the latter. Opposed to the orthodoxy, heterodox economics would be defined by its divergence from at least some of the main orthodox ideas; opposed to the mainstream, it would be defined as that which does not have as much prestige and influence.

Which of those two alternatives is better? When part of the mainstream is not orthodox, should it be classified as heterodox (which would mean that part of the heterodoxy is mainstream)? No perfect answer to these questions exists. The term 'heterodox' has been used in both senses: non-orthodox and non-mainstream. Communication would perhaps be improved if the part of economics that is less prestigious and influential than the mainstream were simply called non-mainstream economics.

3. The Concept of Post Keynesian Economics

Post Keynesianism has been subject to the criticism that it is united around a dislike of neoclassical economics rather than around positive theoretical or methodological propositions. Depending on what one means by Post Keynesian economics, this criticism is unduly severe. Although there is some disagreement among Post Keynesians about the defining positive characteristics of their approach, it is possible to identify a few unifying ideas.

This depends, however, on which strands are included under the Post Keynesian umbrella. On the one hand, finding unity within this group has become easier over time. Most of the leading Post Keynesians no longer include the group known as the Sraffians or neo-Ricardians among the practitioners of Post Keynesianism (e.g., Arestis, 1996; Davidson, 2005; Vickers, 1994) or at least find their views difficult to reconcile (Dow, 2001).[2] Some important Sraffians agree that the two groups should remain distinct, and others do not bother to claim membership to the Post Keynesian club. On the other hand, there are still some Post Keynesians who insist on the proximity or compatibility between their views and those of the Sraffians (Lavoie, 2006) or use the label in a very inclusive sense, even if they are skeptical about the possibility of a synthesis of the principal strands (Harcourt, 2006, p. 2, repeating a stance already taken in Hamouda & Harcourt, 1988). It must be admitted that, even without including some controversial strands, there may remain some underlying tensions within Post Keynesianism.

Perhaps the most fundamental tenet common to all Post Keynesians is the principle of effective demand. This expression has been given a few different meanings (O'Donnell, 1989, p. 236), but it is often associated with three interrelated ideas: the determination of income by expenditure; the determination of employment and output by the producers' expectations of costs and proceeds; and the possibility of persistent involuntary unemployment, due to a low level of aggregate demand. This stands in contrast to Say's law, which claims that supply creates its own demand. This 'law' combines two ideas: production determines income; and, for the economy as a whole, income determines expenditure or demand. This implies the absence of inherent obstacles to full employment in a market economy. With some additional assumptions, such as flexible wages and prices and the absence of destabilizing effects of disequilibrium, Say's law implies a tendency to general equilibrium and full employment

Another important unifying feature of Post Keynesianism is the emphasis on institutions. This approach has stressed institutions since the beginning, long before it became fashionable (again) to do so. Nowadays, all economists seem to agree that institutions matter, so that this is not distinctive of Post Keynesianism. What is distinctive is the set of institutions that are highlighted by Post Keynesians and why. For them, a crucially important institution is money. Post Keynesians have a conception of a monetary economy as one in which not only is there money (in contradistinction to a barter economy), but money plays a leading role, in both the short and the long run, affecting what standard economics calls real variables, such as production—hence the idea of a monetary theory of production—and employment. Post Keynesians further agree that money is to a substantial degree endogenous (although there is a radical and a moderate version of this argument).

Closely related to the emphasis on money is an emphasis on what can be generically, albeit somewhat imprecisely, called Keynesian uncertainty or uncertainty in a strong sense. Post Keynesians have developed the concept of uncertainty and clarified many of their differences with neoclassical conceptions of risk and uncertainty (I shall return to this issue below).

Money is strongly connected to contracts, which in turn affect uncertainty, usually reducing it (although sometimes spreading it). Money and other liquid assets are important in that their liquidity gives their owners the ability to meet

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[2] Similarly, Hyman Minsky (1990) saw Keynes and Sraffa as incompatible. Paul Davidson rejects not only Sraffa but also Kalecki, although this position has not gained much support within the Post Keynesian group, despite Davidson's prominence. I return to this below.

obligations and the flexibility to deal with unexpected events in an uncertain future. In turn, monetary and financial institutions such as banks and the central bank are important because they can provide liquidity—or fail to do so.

Conventions have also been emphasized by several Post Keynesians following Keynes's lead, as well as by Victoria Chick (1995) in her characterization of the approach as a whole.

What most people now call Post Keynesianism has two main sources: Keynes and Kalecki. It is thus mainly composed of two strands: one Keynesian and the other Kaleckian, with some authors belonging to both strands.[3] This distinction is particularly useful regarding macroeconomics, with the first strand placing more emphasis on uncertainty, money and financial institutions than the second, while the latter often adopts a class-based approach, distinguishing between workers and capitalists and highlighting the distribution of income between them. Regarding microeconomics, one can also refer to a Keynesian group that still employs some of Keynes's Marshallian marginalist apparatus, particularly as the microfoundation of the aggregate supply and demand curves, while another group refuses to do so, but not only under Kalecki's influence. In any case, even the first group differs from neoclassical microeconomics, by emphasizing strong uncertainty and the special role of money, as well as forms of rationality other than axiomatic utility maximization.

Methodologically, Post Keynesians embrace some form of realism and are concerned with explanatory mechanisms, distancing themselves from deductivism and excessive formalism. Several Post Keynesians develop mathematical models. These are not usually in the axiomatic style (for an exception, see Katzner, 1998).

Politically, Post Keynesians defend a very active role for government. They range from moderate social democrats to more radical socialists. However, it is not their politics that most distinguish them from neoclassical economics: not all neoclassicals are free-marketers or politically conservative. On the other hand, Post Keynesianism has some interesting points in common with the Austrian school, against neoclassical economics, but the Austrians are generally in favor of free markets.

4. Some Remaining Tensions

A closer look reveals some yet unresolved tensions within Post Keynesian economics.

4.1. Aggregate Supply and Aggregate Demand

Regarding the macroeconomic—and most salient—part of Post Keynesianism, there is a lack of consensus about whether to adopt an aggregate-supply and

[3]Davidson has remained critical of Kalecki, although not necessarily of authors influenced by Kalecki, several of whom embrace Keynes's main ideas regarding the principle of effective demand and liquidity preference. Victoria Chick (1995) can be classified as a member of the Keynesian strand, like Davidson, but she accepts both Keynes and Kalecki as sources of inspiration for Post Keynesianism.

aggregate-demand framework for the study of capitalist economies. This framework was originally developed by Keynes, but it does not have to be based on marginalist principles. Alternatives are possible, even if yet underdeveloped, as Philip Arestis (1996, p. 130) has noted about the modeling of aggregate supply; moreover, the framework can be based on very different assumptions regarding market structure and degree of monopoly (Davidson, 1978, Vickers, 1987). The assumptions may vary, depending on the purpose of the analysis, as discussed below.

4.2. Market Structure

Post Keynesians disagree on the need to assume the presence of large corporations. Some Post Keynesians accept the strategic usefulness of assuming product markets with many small firms, even if this is unrealistic. Others deem it necessary to assume oligopolies or some form of imperfect competition.

It is possible to reduce the tensions regarding the kind of market structure that should be assumed if one clearly identifies the specific purpose of the analysis and distinguishes it from that of other investigations. Most Post Keynesians who assume in part or all of their work some form of pure competition do so for strategic reasons, in order to show that unemployment may occur even with flexible prices and wages, contrary to the widespread belief within neoclassical economics that unemployment is caused by price or wage rigidity, associated with some monopolistic power of firms or unions. A reconciliation between this and the other group may be facilitated by the acknowledgment by members of the latter group that even Kalecki, who for most purposes assumed imperfect competition and mark-up pricing, found it occasionally useful to assume pure competition and increasing marginal costs in order to criticize the traditional view of the effects of a wage reduction on employment (Kalecki, [1939] 1966).[4]

4.3. Uncertainty and Related Notions

Uncertainty and its connections to money, expectations and the absence of a long-period center of gravitation have been a major point of disagreement between Sraffians and the Post Keynesians. Even if we exclude the Sraffian strand from Post Keynesian economics, as most people on both sides seem to have been doing in recent years, there remain some tensions within Post Keynesianism regarding uncertainty and related issues. These tensions are not necessarily between members of its Keynesian strand, on the one hand, and the Kaleckian strand. Several Kaleckian Post Keynesians have defended a Keynesian notion of uncertainty as an important theoretical principle.

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[4]Although Arestis (1992, p. 89) and Sawyer (1982, p. 88) seem to defend the assumption of large firms in general terms, they are aware that Kalecki did not always make this assumption and deny that Kalecki's theory implies full employment in the absence of that hypothesis (Arestis *et al.*, 1999).

Among the main tensions in this regard are those underlying some formal models, which are not necessarily Kaleckian in spirit. Among the potentially controversial points are (a) the assumption of equilibrium, especially in dynamic contexts, and (b) the modeling of expectations and confidence. Paying lip service to uncertainty is not sufficient to ensure internal consistency and relevance.

Formal models claiming a Post Keynesian lineage unfortunately often fail to include a clear discussion of what is being assumed that allows the modeled system to achieve an equilibrium, when it does. What is being held constant in the *ceteris paribus* clause? How is this compatible with Keynesian uncertainty? What are the limitations imposed on the model by its assumptions? These questions are particularly relevant when one is not dealing with short-period equilibrium. It is not being argued here that one cannot or should not develop formal models while accepting the idea of Keynesian uncertainty and the vital role of liquid assets in a monetary economy. Formal models are useful, but one should be explicit about the assumptions being made and how these assumptions limit the scope of each model.

In a closely related issue, any model that is intended to seriously incorporate the existence of Keynesian uncertainty regarding the future—and the roles that liquid assets play because of this uncertainty—should explicitly consider not only expectations, but also the confidence with which these expectations are held. Moreover, when considering confidence, we should not assume that agents unconditionally adhere to one particular way of forming expectations. James Crotty (1994) and others have made valuable suggestions regarding conditional expectations. Unfortunately, this is not how most Post Keynesian models have been developed so far. What hypothesis is adopted regarding confidence? Does confidence change depending on the dynamics of the model? If not, why? Clear and satisfactory answers to these questions have not been usually given.

The very notion of confidence—which is the main determinant of money's liquidity premium in Keynes's theory—has received insufficient attention from Post Keynesians, and consensus on the issue has yet to be achieved. The same holds true for such a crucial concept as animal spirits and its relation to what Keynes (1936) called spontaneous optimism and the urge to action rather than inaction. What do all these concepts mean? How are they related to each other and to uncertainty? How can they be integrated into a theory of the determination of expectations and confidence? How should such a theory incorporate the agents' potential innovativeness and creative imagination about the future? Elsewhere, I have shown the varied and often conflicting answers that some eminent Post Keynesians have given—or failed to give—to these questions; I have also offered my own suggestion of a solution to these problems (Dequech, 1999).

5. Overlaps and Combinations: Post Keynesian Economics and other Alternative Approaches

When defining Post Keynesian economics, one encounters the question of whether it can be clearly separated from other approaches. In other words, how different from, or similar to, other approaches is Post Keynesian economics? A related, and also important, question is whether Post Keynesian economics is self-sufficient. If it is not, then we must ask: how compatible with and complementary to other ideas are the main Post Keynesian propositions? Let us consider these questions in turn.

It is not always easy to separate Post Keynesian economics from other approaches that offer alternatives to neoclassical economics. Each is a conceptually distinct set of ideas, but there are several partial overlaps or intersections among them. Some of the main Post Keynesian ideas mentioned above are also accepted by other groups. For example, neo-Schumpeterians also embrace a very strong notion of uncertainty, especially of the fundamental kind. This convergence is not surprising, given that neo-Schumpeterians are obviously interested in innovation, while Davidson (1982 – 83) and other Post Keynesians resort to the Schumpeterian entrepreneur to explain that the future is a result of human creativity. There are also some strong similarities between the treatment of institutions by Post Keynesians and the institutional economics in the tradition of Veblen and Commons.[5] Perhaps to a lesser degree, the same is true of other approaches to institutions, including the economics of conventions and the régulation school (both originated in France and having Keynes as a major influence), some combinations of Keynesianism and Marxism in the United States, and even some segments of the new institutionalism in economics, as well as in organizational analysis. In all these approaches there are writings that combine institutional and cognitive concerns with a strong notion of uncertainty and a dynamic view of capitalism. Some of them also accept the special role of aggregate demand.

Post Keynesian economics is not self-sufficient, in the following sense. In my assessment of the state of the art in economics and (with less knowledge) in other disciplines, neither a single school of thought nor even a single discipline can provide a sufficiently adequate and broad approach to all relevant economic issues. It is necessary to combine contributions from different approaches and disciplines. Post Keynesian economics should be part of this effort. It would benefit from this interaction even when dealing with its own questions. At the same time, a great deal of care is necessary to do this in a rigorous and relevant way. There is the risk of creating a strange hybrid. Fortunately, one can find in different approaches and disciplines not only similar ideas, as already mentioned, but also ideas that are compatible with and complementary to each other (see also Dunn, 2000, pp. 356 – 361). With caution, this can involve even some contributions of non-neoclassical mainstream economics.

6. The Non-mainstream Character of Post Keynesian Economics—or Not Quite?

Since its beginning, Post Keynesianism as a whole has been very much part of non-mainstream economics at the international level, in several respects.

[5]Arestis (1996) has even identified this institutionalism as one of the main traditions on which Post Keynesian economics has drawn.

Today there are no Post Keynesian professors in the departments of economics of top-ranking universities such as Harvard, Yale, Princeton, MIT, Chicago, Stanford, University of California at Berkeley, etc. There are only one or two isolated Post Keynesians at prestigious institutions such as Washington University and Duke University. The vast majority of the practitioners of Post Keynesianism in the United States work in academic institutions of lesser renown or, in a few cases, in distinguished undergraduate colleges. The approach still survives in research universities such as the University of Massachusetts at Amherst, the University of California at Riverside, American University, the University of Missouri at Kansas City and the University of Vermont. The situation is similar in the United Kingdom. There are no Post Keynesians left at the Department of Economics of Cambridge University, where Keynes and his followers once had a strong presence. The status of Post Keynesianism is higher at the University of Leeds, but not much elsewhere. While other developed countries such as France, Italy, the Netherlands and Japan offer better conditions for non-neoclassical economics in general, the presence of Post Keynesianism in particular does not seem strong. In this general picture, Brazil is a sizeable exception, but it is a developing country with little international weight in academia, especially in the social sciences.

Post Keynesians have extreme difficulty in getting articles published in the mainstream journals of economics. The same holds for their chances of getting funding from the main research foundations in the United States or receiving the most celebrated academic prizes.

It has been noted, however, that the current mainstream is not exclusively formed by neoclassical economics. Has any Post Keynesian idea been incorporated into the mainstream, even if their Post Keynesian proponents have not?

One of the most notable developments in recent mainstream economics is the broadening of the notion of uncertainty. Neoclassical economics has been marked by a weak notion of uncertainty, corresponding to situations in which agents are capable of forming, or act as if they formed, a probability distribution that is unique, additive and fully reliable as a guide to conduct. Some critiques of this weak concept and some non-neoclassical alternative treatments of uncertainty have managed to penetrate mainstream economics, especially since the late 1980s. Indeed, Keynes's writings on probability and uncertainty have been positively cited in highly ranked mainstream economics journals in articles dealing with what is often called Knightian uncertainty or, sometimes as a synonym and other times more restrictively, ambiguity. It is usually Keynes's (1921) *Treatise on Probability* that is cited, especially in connection with his notion of evidential weight, but Keynes did refer to that book and that notion in crucial passages of *The General Theory* regarding confidence and the liquidity premium (Keynes, 1936, pp. 148, 240). Does this mean that Keynesian uncertainty is now part of the set of mainstream concepts?

The answer depends, of course, on what one means by Keynesian uncertainty. This expression can reasonably be taken to mean the strong type of uncertainty that Keynes wrote about. The problem is that Keynes seems to have actually written (in his *Treatise on Probability* and in his later economic works) about more than one type of strong uncertainty. So have, when taken as a whole, the authors who classify themselves as Post Keynesians. Like the notion of strong uncertainty itself, the expression 'Keynesian uncertainty' is useful in that it can be contrasted to the weak, neoclassical notion, but it does not suggest a specific type of strong uncertainty.

Clarifying the relation between Post Keynesianism and mainstream economics regarding uncertainty requires that Post Keynesians share a more exact definition of this concept. According to the typology presented in Dequech (2011), three types of strong uncertainty must be distinguished from each other: procedural uncertainty, ambiguity and fundamental uncertainty. Some Post Keynesians have referred more vaguely to uncertainty in a Keynesian sense, while others have defended a notion broadly equivalent to fundamental uncertainty, with Shackle and Davidson as leading examples. Whether the Post Keynesian concept of uncertainty has become part of mainstream economics depends on whether this concept is equivalent to fundamental uncertainty or to something broader. In contrast with procedural uncertainty and ambiguity, fundamental uncertainty does not seem to have become an accepted concept in mainstream economics.[6] This is not, however, a trivial point to make regarding some works on the (moving) frontier of the mainstream. Both Post Keynesians and mainstream economists could benefit from further discussions about this.

This conceptual issue has important theoretical consequences, as different concepts of uncertainty underlie different theories of money and asset choice. Not surprisingly, mainstream economics has incorporated the concepts of ambiguity and Knightian uncertainty into its monetary and financial models. The relation between these applications and the Post Keynesian views ultimately depends at least in part on the underlying concepts of uncertainty.

7. Some Implications of the Non-mainstream Character of Post Keynesian Economics

7.1. The Influence on the Economy and the Danger of 'the Scholastic Fallacy'

An important issue concerning the separation between mainstream and non-mainstream economics is the distinction between these two types of economics regarding their capacity to influence the economy. This applies to Post Keynesianism as part of non-mainstream economics.

[6]Douglass North's (2005) book has a chapter entitled 'Uncertainty in a Non-Ergodic World,' where he approvingly cites Davidson (1991). This does not mean, however, that Davidson's concept of uncertainty has been accepted into the mainstream. As defined above, mainstream economics is a set of ideas. Although North is a highly respected Nobel laureate, not all his ideas have been accepted into mainstream economics. Indeed, North can be described as trying to push the current frontiers of mainstream economics toward the acceptance of ideas that are still outside it. One of these ideas is his notion of uncertainty.

One of the major channels through which economics influences reality is the presence of economists, be they academic or not, as partners, directors, employees or consultants in private organizations. The non-mainstream character of Post Keynesian economics weakens its potential to influence the main organizations of the private sector (including the interesting case of rating agencies), in comparison with its more prestigious, mainstream counterpart.

This is important in itself, but it also impacts back on the academic field. In particular, it has consequences related to what the French sociologist Pierre Bourdieu called the 'intellectualist bias', which leads social scientists to commit the 'intellectualist' or 'scholastic fallacy'. This fallacy consists in mistakenly attributing to people in the real world the model of action constructed by the analyst (Bourdieu & Wacquant, 1992, p. 70). Bourdieu used this concept to criticize neoclassical economics (see, for example, Bourdieu, 2000, p. 19; Bourdieu & Wacquant, 1992, p. 120). The scholastic fallacy is, however, more general: it may be committed by any kind of economist, not only neoclassical ones. The mind of the analyst does not seem to be the right general answer to the question of where the mental models and the motivation of economic agents—or policy-makers, for that matter—come from. In this regard, the higher prestige and more widespread influence of mainstream versus non-mainstream economists must not be ignored by the latter. In particular, this must be borne in mind before non-mainstream economists assume that economic agents also are, or think like, (their kind of) non-mainstream economists. This would be a different version of the same mistake that Bourdieu and others have accused neoclassical economists of making. As argued above, neoclassical economics still is part of the mainstream. The following warning is thus still valid and applies both to non-mainstreamers and to non-neoclassical mainstreamers: 'Care is required to avoid a hasty attribution of irrationality to, say, decision-makers who hire a neoclassical economist from a top university as a consultant' (Dequech, 1998, pp. 73 – 74).[7] The argument can be generalized to other forms of mainstream economics.

Similar caution is also necessary regarding the use of mainstream formal economic models by economic agents and policy-makers. Some of these individuals may believe that academic formal models are rigorous and therefore legitimate; others, concerned with the accountability of their acts, may consider these models appealing because of their social appearance of legitimacy, which facilitates justification in case decisions yield bad results; still others may have studied economics and simply treat those models as the natural way of doing economic analysis.[8]

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[7]I am grateful to Ana Maria Almeida for pointing out the similarity between my arguments in Dequech (1998) and Bourdieu's discussion of the 'scholastic fallacy'.

[8]Sheila Dow (1998, p. 5) discusses similar issues in terms of rationalization, which 'involves the reconstruction, either of real relations or of arguments, according to some principles of rationality. ... The principles of rationality on which a rationalisation is based may not be those which really underpin economic processes or theorizing about these processes.' She adds that rationalization may become so embedded as to alter actual behavior (Dow, 1998, p. 13).

The use of some mainstream formal models by economic agents relates, in particular, to an important issue concerning the separation between Post Keynesianism and mainstream economics: the treatment of uncertainty. Post Keynesians emphasize a type of uncertainty that in their view is neglected by mainstream economics, at least in its neoclassical guise, particularly by the way in which it builds its formal models. The problem raised here concerns the assumptions that are made regarding the economic agents' awareness or lack of awareness of this type of uncertainty. John Hicks (1977, p. vii) wrote: 'One must assume that the people in one's models do not know what is going to happen, and know that they do not know just what is going to happen'.[9] It is indeed possible that economics agents are or become aware of fundamental uncertainty (as argued by Davidson, 1982 – 83 and Crotty, 1994). This awareness underlies the Post Keynesian theory of the use of liquid assets as a store of value. One should not, however, always assume that all economic agents are always aware of this variety of uncertainty, regardless of the ideas that dominate economics in a specific historical context, while in reality some agents may be led by mainstream economists to neglect it and employ mainstream formal models.

Admittedly, one should not necessarily reprove Shackle (1972) for implying that marginal calculus under fundamental uncertainty is a futile exercise, nor Vickers (1994, p. 228) for warning against 'excessive refinement or appearances of precision where it does not, or cannot, exist.' On the other hand, the perception of uncertainty may be negatively affected by prestigious economic theories (Dequech, 1999); or the very awareness of ignorance may lead agents to resort to the help or the opinion of others. Consequently it is not surprising if the widespread influence and high prestige of neoclassical economics and other forms of mainstream economics lead people in practice to have what seems to Post Keynesians and other heterodox economists as an erroneous belief in the usefulness of some mathematical or statistical techniques in some circumstances. For people to adopt some types of formal procedure, they would need either to be unaware of fundamental uncertainty (and procedural uncertainty) or to believe that it is worth going into this kind of mathematical detail when the choice of the numbers involved (including, when this is the case, the discount rates) is influenced by very imprecise factors. For example, someone aware of fundamental uncertainty may wish to give other people the impression that she knows more than she actually does; or she may wish to reinforce the legitimacy of her decisions. The use of maximization techniques may serve these purposes. The existence of mainstream formal models may therefore alter the behavior even of economic agents who are aware of one or more varieties of uncertainty that seriously limit their applicability. (Palley, 1993, has made a similar point, with particular reference to expected profit maximization.)

[9]Mario Possas (2002, pp. 129 – 130) has a more cautious, dynamic version of this argument: for him, in a context of strong uncertainty, in contrast to the Bayesian updating process and the strong version of the rational expectations hypothesis, 'it makes more sense to assume that rational agents, after due experimentation, eventually learn—that they do not learn!'

In sum, academic prestige and influence may give an approach a head start in the competition to affect the real world. It is not denied here that economic agents and policy-makers may conclude (or, from the critics' viewpoint, learn) that neoclassical economics or perhaps another form of mainstream economics provides useless or erroneous guidance. It would be a mistake, however, to assume that this has already happened or will inevitably always happen. Even if and when this negative assessment does occur, the need for legitimacy and accountability may explain the continuous resort to prestigious forms of (socially recognized) knowledge, at least as 'pretty, polite techniques, made for a well-panelled Board Room' (Keynes, 1937, p. 215).

Another channel for the influence of economics is economic and social policy. Post Keynesians have been very much aware of the fact that policy makers usually are not Post Keynesian economists and do not have Post Keynesian economists as advisors, especially in the developed world. In fact, since the emergence of the Post Keynesian school of thought in the 1970s, its proponents have criticized important aspects of most economic policies that have been implemented in the countries they investigate. Post Keynesian economists are therefore unlikely to commit the scholastic fallacy regarding policy-makers. We must, however, go beyond the acknowledgment that Post Keynesian policy proposals may be difficult to implement. In addition to, and in part because of, their marginalization in academia, the ideas underlying these proposals may suffer from the fact that sometimes they are unconventional, not shared by the public at large. Hence, even if these proposals were implemented, there would be another important issue involving the non-mainstream character of Post Keynesian economics: the possible reaction of economic agents to its policies. Two interrelated aspects come to mind at this point. First, Post Keynesians advocate an active role for government in the economy. Second, Post Keynesians defend large amounts of government spending (regularly, to give stability to the economy, or at least when aggregate demand is low), with much less concern with possible fiscal deficits than most economists. The public in general, as well as entrepreneurs and managers in particular, with the reinforcement of economic analysts in rating agencies, may not be very sympathetic to this kind of policy proposal (see also Keynes, 1936, p. 162, and Kalecki, 1943). Because of their reaction, negative forecasts about the results of some Post Keynesian policies, when made, may turn to be self-fulfilling prophecies. To be sure, practical results normally matter more to private agents than economic doctrine. Furthermore, the views that the public has of an active economic role of government oscillate historically, so that they are not always negative. On the other hand, one should not ignore these views or assume that they are always positive. The latter would be another example of the scholastic fallacy.

7.2. A Reproductive Difficulty in Academia

As part of non-mainstream economics, Post Keynesianism is not well known among economists and is virtually not taught in the economics departments of the most prestigious universities of the United States, Great Britain and other countries. In turn, the prestige and influence of mainstream economics makes it attractive to the students, most of whom, being unaware of the existence of non-mainstream approaches, are apt to associate prestige and influence with academic quality. This implies a difficulty to attract many good students to the less prestigious departments of economics where Post Keynesian and other variants of non-mainstream economics are taught.

In the rare economics department of a prestigious university where there is a Post Keynesian professor, graduate students have an essentially mainstream training during the coursework phase. The students who are attracted to Post Keynesian economics or any other non-mainstream approach would have to be willing to go through this, which is not necessarily a bad thing, even from the viewpoint of the critics—after all, both the critique and the alternative view are stronger when there is more knowledge of what is criticized. On the other hand, the critics may understandably worry about two problems: (1) the possibly insufficient graduate training in alternative approaches (which can be remedied after graduate school); and (2) the possibility of serious internal inconsistencies in the student's overall views, with the mixing of ultimately conflicting mainstream and non-mainstream views, when they are indeed conflicting. The latter risk can be smaller if the student has some previous graduate experience in non-mainstream economics or in other social science before attending the PhD program.

Outside the departments of economics, there are good opportunities to obtain a solid graduate training and study economic issues in many prestigious universities. Many interesting works that are critical of neoclassical economics and a few other variants of mainstream economics have been written by researchers working in graduate programs in business, organizational behavior, sociology, history, political science, industrial relations, etc—often as part of the mainstream of these disciplines. Many of these scholars are not economists; among those who are economists, practically none is a Post Keynesian.[10]

At least in the developed world, the difficulties of Post Keynesianism in attracting promising graduate students and in ensuring that students are well and broadly trained in economics or some other social science concerned with economic issues, before writing a dissertation influenced by the Post Keynesian perspective, threaten the future of this school of thought. There are, thus, sociological reasons for Post Keynesians to avoid isolation, in addition to the already-mentioned intellectual need for further interaction and integration, both with other economists and with non-economists. To secure the healthy survival of their ideas, Post Keynesians must attempt to spread at least some of them to other groups, which often turn out to be quite receptive.

[10]At this time, among the best options for graduate studies, I know of only one exception, in the School of Public Affairs of the University of Texas at Austin. Although two Post Keynesians currently participate in a graduate program in the University of Cambridge, they work at the Department of Land Economy, where graduate training is limited by the fact that the coursework is specialized in real estate, land and related issues.

8. Concluding Remarks

Post Keynesian economics can be characterized on the basis of unifying positive ideas, although some internal tensions or potential inconsistencies continue to exist. At the same time, there are important overlaps between Post Keynesianism and other schools of economic thought. Some of their ideas are thus similar, while others, but by no means all, are mutually compatible and complementary. It is not only possible but also necessary to combine contributions from different approaches and disciplines in order to understand several important economic issues. This is not always easy, however, and must be done with attention to both rigor and relevance.

Post Keynesianism lies outside mainstream economics, although there have been positive developments in the latter, especially regarding the notion of uncertainty. The non-mainstream character of Post Keynesian economics has at least two important consequences. First, it limits the ability to influence the economy, so that Post Keynesians must not assume that economic agents always think and behave like them. Second, it worsens the conditions for the long-term reproduction of Post Keynesianism. This makes communication and integration with other approaches and other disciplines all the more desirable.

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