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POST KEYNESIAN ECONOMICS AND SUSTAINABLE DEVELOPMENT

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Introduction

Post Keynesian economics (PKE), as part of heterodox economics, holds presuppositions that emphasise realism, holism, reasonable rationality, production and instability instead of instrumentalism, atomism, absolute rationality, scarcity and market equilibrium. It extends and generalises the seminal ideas that were developed by John Maynard Keynes, Michal Kalecki and their heirs, notably Nicholas Kaldor and Joan Robinson. However, during the early 1970s several American economists—in particular Alfred Eichner, Edward Nell and Paul Davidson—contributed in their own way to this tradition and helped to institutionalise PKE, which can be viewed as a comprehensive alternative to the prevailing neoclassical paradigm.

Post Keynesian economists share some specificities held within the heterodox tradition that are discussed next. I then investigate why they have not focused on environmental and sustainability until recently. I follow this by arguing that they have the tools to construct an heterodox political economy of sustainable development together with ecological economists. Although I note some divergences still need to be addressed.

What is PKE about?

PKE is distinguished by its focus on some core interrelated ideas: the principle of effective demand, causality running from investment to saving, an environment of strong uncertainty, the insistence that time is historical and irreversible and the study of a monetised production economy (Lavoie, 2014). Each of these is discussed in turn.

The principle of effective demand represents the crux of Keynes's theory of employment. That theory explains aggregate demand as the main force that determines output and employment, whether in the short or the long run. Aggregate demand is linked to one of the key elements of the "Keynesian revolution" and thus a key feature of Post Keynesianism, i.e. that investment determines savings. Neoclassical economists consider that savings drive investment. Hence, they favour policies aiming at increasing income and wealth of those that have more savings, i.e. the richest, thus fostering the financialisation of the economy. If savings govern investment, the trickle-down effect (whereby the poor benefit for general economic growth that favours the rich), which is at the basis of the Kuznets curve, is assumed to operate,

and so creating economic growth is argued to result in decreasing inequality in the long run. Neoclassical economists also promote fiscal austerity policies, and a balanced budget, because they regard government deficits as being negative government savings, and this reduces the pool of national savings available for investment, thereby reducing the level of investment. By showing that investment determines savings, and by considering savings as residual, Keynes allows us to reject neoliberal policies and the social justification of great inequality of wealth.

The principle of effective demand derives from the notion of strong uncertainty that underlies all of Keynes's economic philosophy and is a forerunner of the precautionary principle (Section 4). According to Keynes, we can never be sure of the results of our actions nor even of their desirable nature. Consequently, we live in a largely non-probabilistic world where neoclassical mechanics cannot function any more. Therefore, we must reason in terms of strong uncertainty, i.e. in a world where there is no scientific basis on which to form or calculate probabilities. However, action is required and decisions may then be undertaken on the basis of expectations by allowing an agent to determine what is conventional behaviour, guided to a considerable degree by those facts about which they feel somewhat confident. This is the case argued by Keynes, even though such facts may be less decisively relevant to the issue than other facts about which our knowledge is vague and scanty (Keynes, 1936a, p. 148). Needless to say, the foundations of such a model based on conventional behaviour are not very solid and may lead rather to situations where rumour, fear, disillusion or hope—which are non-probabilistic elements—can involve a brutal and sudden revision of these expectations.

Post Keynesians consider historical time, or chronological time, which is irreversible, in contrast to the logical or abstract concept of time used by neoclassical economists, who study equilibrium while excluding the processes involved in reaching it. On the contrary, Post Keynesians underline the need to consider and describe the transition from one position to another, recognising that the conditions under which this transition occurs may affect the final position of equilibrium. Thus, history matters in the sense that the past influences subsequent outcomes.

Post Keynesian economics evolves in a monetised economy. As such, it questions relative prices and substitution effects—where consumers' and producers' choices depend on such relative prices—and favours nominal values and income effects where aggregates are more influenced by income fluctuations and technical change. As Holt and Spash (2009, p. 15) point out:

One consequence of the primacy of income effects is that we cannot rely on the price system to get things right or lead to optimal outcomes. In the real world, prices reflect market power and current short-term perspectives only. They are also affected by speculation. Because prices do not reflect scarcity, we cannot count on prices to deal with current overutilization of resources or to protect the planet from the enhanced greenhouse effect.

If markets are not self-adjusting mechanisms then institutions [Chapter 3] are important.

Why have Post Keynesians paid limited attention to the environment?

Post Keynesians have faced some difficulties with involving themselves in sustainable development and including environmental issues in their analysis. Davidson (2002) reminds us that ecological concern, or the economic implications of the depletion of resources, has been significantly ignored and should be included in the analysis. This failure is evident in the lack of any specific entry on sustainable development in the first edition of John King's *Elgar Companion*

to *Post Keynesian Economics* (2003) where there is only an environmental economics entry referring to a microeconomic approach. The second edition (King, 2012) rectified this omission and may indicate an overdue interest of Post Keynesians in sustainability issues.

Mearman (2005, 2007) argues that there are many reasons why Post Keynesians have said little on the environment. However, he stresses three of them. First, Post Keynesians were engaged in a struggle with the mainstream by developing a critique of neoclassical economics and by constructing their own theoretical positions. As such, the “pioneers” of Post Keynesian economics—Keynes, Kalecki, Robinson, Kaldor, and so on—worked on the main social issues of the day such as employment, growth, income distribution or money and neglected environmental issues. Second, Post Keynesians used static tools ill-equipped for analysing the environment. Davidson (1979), who is a rare example of a Post Keynesian who has engaged in environmental issues, thinks that the orthodoxy needs to be attacked on its own ground. As such, his approach to the environment—particularly his earliest works—appears to be more Marshallian than Post Keynesian as he uses a microeconomic approach and marginalist terminology. Following Davidson, most Post Keynesian economists view environmental issues as microeconomic, while the focus of their work has been on macroeconomics. According to Mearman, this could explain their lack of interest in the environment. One notable exception is Lavoie (2006) who considers that environmental questions could also be studied from a macroeconomic perspective. Third, the preoccupation with growth and employment by the Post Keynesians may have made them reluctant to focus on the environment given the obvious ecological implications (Chester and Paton, 2013). Moreover, the rejection of the concept of scarcity and the emphasis put on demand and short-term analysis may lead to the denial of any ecological constraint.

Does all this mean that Post Keynesians have nothing to say and that they have no tools to tackle environment issues? Of course not, and we can find some interesting reflections from early Post Keynesian economists. For Robinson (1972), the environment is a ‘critical question’. She adds that “the consumption of resources, including air to breathe, has evidently impoverished the world” (Robinson, 1977, p.1336), leading her to wonder, what is growth for? As Mearman (2007) reminds us, Galbraith (1958) addresses the effects of economic activity on the environment, particularly pollution, while Georgescu-Roegen could be linked with Post Keynesian economics, as Lavoie (2006) suggests. This leads Berr (2009, 2015), Fontana and Sawyer (2013), Jespersen (2004), Holt (2005, 2009) and Mearman (2005, 2007) to claim that there are foundations. However, the task of current Post Keynesian economists is to tackle this issue and build an ecologically sustainable and socially just economy.

The potential for a Post Keynesian sustainable development

The foundations of a Post Keynesian approach on environmental and sustainability issues can be found in Keynes’s own works, which give us many elements to build on. His search for beauty makes him concerned with ecological issues. Strong uncertainty leads to the precautionary principle. More generally, Post Keynesian economics seems to be compatible with eco-development and strong sustainability.

The search for beauty

Keynes was not only a famous economist, he was a lover of the Arts. As such, his social economic philosophy is marked with the search for beauty (Berr, 2009). Keynes feels that the purpose of life is to enjoy beauty, knowledge, friendship, and love, all concepts that are not

primarily concerned with economics. He rejects the “classical” vision, based on Benthamite utilitarianism, which he considers to be a catastrophic change for civilisation. In his opinion, the Arts, like Nature, must be disconnected from economic considerations because “the exploitation and incidental destruction of the divine gift of the public entertainer by prostituting it to the purposes of financial gain is one of the worst crimes of present-day capitalism” (Keynes, 1936b, p. 344).

Keynes continues by denouncing the fact that the same rule of self-destructive financial calculation governs every walk of life.

We destroy the beauty of the countryside because the unappropriated splendours of nature have no economic value. We are capable of shutting off the sun and the stars because they do not pay a dividend... Or again, we have until recently conceived it a moral duty to ruin the tillers of the soil and destroy the age-long human traditions attendant on husbandry if we could get a loaf of bread thereby a tenth of a penny cheaper.

(Keynes, 1933, p. 242)

Keynes realises that economic and financial logic are in opposition to ecological and social reasoning. He condemns environmental destructions and reacts to the disfigurement of the planet, which led him to minimise the role of economics (Keynes, 1930).

Uncertainty and the precautionary principle

Keynes’s conceptualisation of uncertainty encourages a convention of behaviour based on a precautionary attitude, which allows a better understanding of how behaviour should be conducted concerning environmental questions. Indeed, numerous studies show the unsustainability of the Western model of development, of which human induced climate change is currently just the most prominent. However, if we are unsure future changes will occur in term of being unaware of the form that they will take, then, according to Keynes, we have weak confidence. This weak confidence can prevent us from fully taking into account the associated problem. This implies that what is most important for action is not to know that changes will happen, but to believe in their eventual manifestation.

However, because ecological matters become an increasingly important component of expectations as environmental risks become more visible, we should adopt a more precautionary attitude. If we consider that we live in a world where strong uncertainty prevails, we must promote a necessary precautionary principle (Berr, 2015). This principle, which appeared for the first time in Germany at the end of the 1960s, is now widely accepted. For instance, the Rio declaration on the environment and development (1992), gives in its principle No. 15 the following definition:

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

This principle gave place to two antagonistic conceptions. First, a weak precautionary principle is based on cost-benefit analysis expressed as risk management. In that case, the burden of proof of the danger falls onto the opponents of a decision. Thus, this approach recognises the primacy

of economic values on the basis that highlighting economic benefits is easier than calculating human and ecological costs. Second, a strong precautionary principle requires that the promoters of a potentially dangerous decision have to show the absence of serious risk. This approach states that environmental issues—and one could add social issues—prevail over economic questions. It is a vision that does not undermine the Keynesian notion of the primacy of investment but does ask questions about the investments' substance. This intimates a greater role for the State, which—notably using its law-making capabilities—can try to motivate firms to adopt an ethical stance and commit to “clean” investments. Kalecki (1964) went further by considering that the State must be both the planner and promoter of development, and, if need be, even the producer. In this view, the State has a responsibility for indicating development priorities and ensuring that needed investments take place. In turn, this implies the use of certain forms of planning.

Eco-development and strong sustainability

If we must acknowledge that a unified Post Keynesian approach that deals with a global sustainable development does not exist yet, then we can see that sustainable development, when viewed through the prism of a Post Keynesian paradigm, is comparable with eco-development. The latter has been theorized by Ignacy Sachs (1980)—once a close colleague of Kalecki at the Warsaw School of Planning and Statistics—who recognises his Kaleckian affiliation. In short, eco-development relies on three pillars (Sachs, 1980, p. 32): (i) self-reliance, which encourages autonomous decisions and the emergence of modes of alternative development encompassing the historical, cultural, and ecological contexts that are specific to each country; (ii) a fair assessment of everyone's essential material and immaterial needs, especially people's need to realise themselves through a meaningful life; (iii) ecological prudence, or the search for a kind of development that is in harmony with nature.

By asking that the fight against underdevelopment include limits on wealthy countries' overdevelopment and encouraging developing countries to rely on their own strengths, trust themselves, and no longer depend on rich countries, eco-development provoked great enthusiasm in the developing world. It also provoked the ire of the administration in the USA, whose reaction was to progressively marginalise eco-development and replace it by sustainable development as defined in the Brundtland report (Berr, 2015). However, two visions of sustainable development continued to vie with one another. The first was neoclassical in inspiration and served as the basis for weak sustainability. It tried, at the microeconomic level, to give monetary value to natural elements so that they could be integrated into a cost-benefit analysis. At the macroeconomic level, it extended the Solow model and tried to build theoretical models justifying an empirical argument rooted in an allegedly virtuous relationship between economic growth and environmental quality—encapsulated in the environmental Kuznets curve. It also tried to formulate a “sustainability rule”, whereby the per capita value of the total stock of capital in a given society could only be maintained if one postulated perfect substitutability between the different forms of capital—physical, social, human, natural.

The second approach, which has come to form the basis of what might be called strong sustainability, is less focused on economic aspects alone and offers a more radical vision. Here, ecological sustainability postulates the preservation of a stock of critical natural capital, rejecting the principle of the substitutability of production factors and emphasising their complementarity instead. It disagrees with the monetary valuation of natural elements and tries to construct a new economy of well-being based on non-utilitarian “ethical” values and the search for new measurements of wealth. Social sustainability is grounded in the implementation of a

development process that combines an acceptable level of social homogeneity, a fair distribution of incomes, and full employment with fair access to social services. Economic sustainability depends not only on a more efficient distribution and management of resources, but also on a constant flow of both public and private investments destined to modernise the productive apparatus in an attempt to save on natural resources and alleviate human distress.

Clearly, the presence of post Keynesians in the field of sustainable development, if deserved at all, can only happen in a framework of strong sustainability, which is the only one that explicitly breaks with neoclassical theory and is in phase with eco-development and what is now called social ecological economics, i.e. an heterodox interdisciplinary movement in political economy focusing on the interconnection of power with environmental and institutional arrangements (Spash, 2011; Holt and Spash, 2009).

Future directions

However, to be fully relevant on environmental and sustainability issues, Post Keynesianism has to be clear on its position as regards growth and its emphasis on demand. Indeed, the Post Keynesian focus on growth seems incompatible with social ecological economics which views growth as a potential cause of the current environmental crisis (Spash and Schandl, 2009; Spash, 2011). Likewise, the emphasis on the demand side seems to say that scarcity of resources does not exist. On both issues, the problems are not insuperable and future reconciliation can be viewed optimistically by promoting a political economy approach that is common to Post Keynesian economics and social ecological economics.

How growth may be compatible with sustainable development

The final chapter of Keynes's *General Theory* gives us the core elements of what Keynes himself calls his social philosophy. According to him, "the outstanding faults of the economic society in which we live are its failure to provide for full employment and its arbitrary and inequitable distribution of wealth and incomes" (Keynes, 1936a, p. 372). Thus, fighting against unemployment and inequality appears to be the root of Keynes's social economic philosophy. As Spash and Schandl (2009) acknowledge, growth, for Keynes, only appears to be a means to an end, or even a result, while neoclassical economists view it as a goal in itself. Keynes and the post Keynesians would also reject degrowth as an objective per se because they stick to a neoclassical-based approach which claims that we cannot do anything favouring social and environmental aspects if there is no growth. What is the most important is to implement policies that improve the social conditions of the population and promote investment that avoids environmental degradation and favours full employment. In other words, the main objective is a better distribution and use of wealth, but in this case whether the result is growth or degrowth remains an open question.

If Post Keynesians do not reject growth, two questions must be answered if we want to ensure that growth does not lead to unsustainable development: (i) What is supposed to grow? (ii) How can we ensure that the wealth produced benefits the whole population fairly without damaging the environment? Thus, the question of the distribution of wealth cannot be dissociated from that of growth.

When claiming that full employment could be achieved through an increase in public expenditure in order to favour investment, regardless of what those investments are, Keynes seems to allow unsustainable paths of development. This is true even if he considers "the vital importance of establishing certain central controls in matters which are now left in the main to

individual initiative” (Keynes, 1936a, pp. 377–378). After all, if full employment requires more investment and/or consumption, we must acknowledge that we are now living in a world where the ecological constraint prevails. Thus, in order to achieve sustainable paths there is an indispensable role for the State in orienting consumption and investment—even when implementing investment in Kalecki’s view.

More recently, Courvisanos (2012) developed an “eco-sustainable framework”, that is, an innovation and investment policy framework for sustainable development. This framework, borrowing from Lowe and Kalecki, has three main elements that drive innovation and investment (Courvisanos, 2012: 207):

- 1 Agreed ecological sustainable rules (or conventions), including capital investment that is resource-saving within long-term sustainable carrying capacities—a precautionary principle under strong uncertainty;
- 2 Perspective planning with flexible risk-adverse investment strategy—a satisficing principle under iterative strategic planning of innovation and investment;
- 3 Cumulative effective demand with a strong local niche market share for environmental-based goods and services—a demand-oriented stimulus and support.

In conclusion, the argument is that growth will not be the enemy of sustainable development as long as it is accompanied by a redistribution of wealth favourable to the least advantaged social classes, and also by prudent management of natural resources.

Aggregate demand in a sustainability perspective

For Holt (2009), a tension exists between Post Keynesians and sustainable development according to the role that effective demand plays in maintaining full employment in a modern, money-using, entrepreneurial economy. Indeed, the principle of effective demand highlights the fact that modern capitalist economies are marked by the coexistence of an underemployed workforce and excessive production capacities. By excluding any notion of scarcity, Keynes—and Post Keynesians in his wake—considers that both short and long-term demand should be highlighted. An approach of this kind would appear to contradict sustainable development because, by refusing to distinguish between physical and natural capital, it intimates that the latter is also overabundant insofar as it has not been used in its entirety.

Current Post Keynesians are very aware of environmental problems. They stress intergenerational solidarity as well as the insurmountable nature of the ecological constraint. This causes Post Keynesians to reject the principle of the substitutability of production factors and to highlight a kind of complementarity that meshes well with the notion of a reasonable management of natural resources. For Post Keynesians, any actions undertaken today have effects tomorrow, not only on people but also on the biosphere.

They also observe that, with increasing living standards in developed countries, populations are less and less inclined to question a system that fights unemployment by wasting resources. Hence the need for the State, but also civil society, to get involved in redirecting the economy toward a more sustainable development path. Post Keynesians agree on the need to resort to a certain form of planning, because they want to correct market imperfections. Their approach to the environment includes targets that can be achieved via planning while focusing more closely on the social consequences of the distribution of wealth associated with this process. Consequently, Post Keynesians could follow eco-development, and social ecological economics, in seeking to modify the relationships between State, market, and civil society to the benefit of

the latter. The purpose is not to abandon the market or overemphasise the role of the State. This is a framework where the planner's role is to negotiate with different parties and devise an acceptable common position. However, to be effective, planners must pay attention to the diversity of situations encountered and compile maximum information, something that assumes the largest possible participation of local populations so that their problems and needs can be identified, along with the potential of the local natural environment.

Toward a political economy of sustainable development

The possible unsustainable nature of growth and an emphasis on demand leading to the denial of any scarcity of natural resources can be easily overcome if we adopt an approach in terms of political economy. Such an approach is common to Post Keynesian economics and to any heterodox sustainable development movement, in particular eco-development and social ecological economics. This leads to the incorporation of ethical judgements, following Keynes who considers economics as a moral science.

Kalecki (1943) stresses the role of vested interest when he emphasises that the influence of economic ideas in shaping policy is severely constrained by the prevailing social and political institutions. Along these lines, an analytical grid highlighting power relationships, as formulated by Galbraith (1984) or Boulding (1989), would be very useful and help to highlight the institutional obstacles that must be overcome. The application of new ideas is far too often constrained by the fact that they may not serve the interests of those who have the power to change things. Perhaps the missing links between Post Keynesian and social ecological economics lie somewhere between Galbraith and Kapp (Spash and Schandl, 2009) and maybe something of Boulding could be added (Scott, 2009).

Undoubtedly, Post Keynesian economists provide many concepts which they perceive to be extremely relevant for "grasping the environment", such as uncertainty, institutions, path dependency, irreversibility, historical time, cumulative causation or procedural rationality (Chester and Paton, 2013, p.109). However, the synthesis of these concepts into a broadly coherent economic-environment framework has yet to be realised. By adopting a political economy approach which includes power relationships, ethical values and ideology, convergences between Post Keynesian and social ecological economics can be viewed optimistically. Vatn (2009) sees a potential for cooperation between these two traditions as ecological economics is engaged in understanding what characterises resilient systems, but mainly at the local level, while Post Keynesians tackle such issues at a macro level. The consumer choice theory of Lavoie (2009) is an outcome of such a cooperation.

Concluding remarks

Today there is no doubt that Post Keynesians have solid arguments qualifying them to enter the field of sustainable development and to participate in the preparation of models that offer an alternative to the orthodoxy. While acknowledging that a unified Post Keynesian approach on the environment does not exist yet, this chapter has shown that there is the potential for Post Keynesian economics to contribute to the advent of a heterodox political economy of sustainable development. Indeed, the interlinkage between the social and ecological dimensions of sustainable development requires radical institutional change to ensure greater fairness, whether on an intra- or intergenerational basis. Breaking with the orthodoxy is the first step. The second step is how to enter economic sustainability or, as Holt (2005: 174) put it, "how you deal with unemployment and poverty today without damaging and depleting the natural resources and

ecological systems needed for economic opportunities for future generations”. In both regards, there is no doubt that Post Keynesian economics and social ecological economics are travelling on the same boat.

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