

The Incommensurability of Keynes's and Walrasian Economics and the Unsuccessful Escape from Old Ideas*

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Abstract: The Cambridge Journal of Economics witnessed an important debate between Mark Pernecky and Paul Wojick on the one side and Rod Thomas on the other about the usefulness of Thomas Kuhn's sociology and philosophy of science in explaining why Keynes's revolutionary ideas exposed in the General Theory have been 'lost in translation'. This brief note is an attempt to reconcile Pernecky and Wojick's claim that Keynes's new economics of the General Theory and Walrasian General Equilibrium are incommensurable paradigms in a Kuhnian understanding and Thomas's critique that – if they were incommensurable – Pernecky and Wojick's appraisal of Keynes's paradigm as a better approximation to the 'real world' than Walrasian General Equilibrium is inconsistent within that very Kuhnian framework.

Keywords: Keynes, Kuhn, Paradigm, Incommensurability.

JEL classification: B 2, B 40, B 5

Introduction

Pernecky and Wojick (henceforth P&W) published a very "insightful analysis" (Thomas 2020, 1423) in the Cambridge Journal of Economics on the nature of Keynesian and Walrasian economics in order to better understand "why the key theoretical constructs found in the *General Theory* [...] have [...] been ignored or misrepresented: or they have been mistranslated when an effort has been made to 'absorb' them [...]" (Pernecky and Wojick 2019, 770). According to P&W, this is not due to a conceptional vagueness on the part of Keynes, but due to the incommensurability of Keynes's new economics and theorising on Walrasian General Equilibrium¹. The lack of awareness of such paradigmatic incommensurability and the inability of most economists who attempted to make sense of the *General Theory* to disentangle themselves from preconceived ideas meant that they read Keynes's theoretical contributions through the lens of Walrasian General Equilibrium. As a result, "(t)his does an obvious injustice to Keynes and an even more important injustice to the goal of producing an accurate and ultimately helpful

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¹ Although P&W do not clearly define their understanding of Walrasian General Equilibrium, I take Dynamic Stochastic General Equilibrium (DSGE) modelling in all its variations as the mainstream paradigm here dubbed as Walrasian General Equilibrium.

understanding of the ‘economic society in which we actually live’” (Pernecky and Wojick 2019, 770).

By using the conceptions of ‘incommensurability’ and ‘paradigm’, P&W explicitly refer to Thomas Kuhn’s theory of scientific revolutions². For Kuhn, scientific revolutions occur when the reigning paradigm has fallen into ‘crisis’ due to internal (deductive) inconsistencies or external (inductive) falsification³ and will eventually be abandoned for a competing paradigm if (and only if) such a competing paradigm exists and is unaffected by the internal or external factors that triggered the crisis. Of course, the Great Depression of the 1930s has been seen by many as the external factor falsifying Walrasian general equilibrium economics in general or the (neo-)classical, self-regulating economics of the Marshallian and Pigouvian mould in particular (which was the main target of Keynes’s attack on the ‘citadel’)⁴. Keynes’s new economics of the *General Theory* were taken as the new paradigm, eagerly accepted mainly by the younger generation of economists in the USA (see e.g. Stanfield 1974) – the rising hegemon of academic economics after WW2. P&W’s point is that such a Kuhnian revolution never occurred⁵ because the necessary paradigm shift failed to materialise. And this was the case because early interpreters of the *General Theory* and, later, most other economists failed to replace their lenses, instead viewing the *General Theory* through their accustomed prism of the Walrasian paradigm, ignoring the problem of paradigm incommensurability.⁶

² It is (still) disputed whether Kuhn’s concept of scientific revolutions can be applied to the social sciences as he himself was in doubt about „what parts of social science have yet acquired such paradigms at all“ (Kuhn 1970: 15). Although Kuhn was apparently willing to reserve the economic discipline a special status among the social sciences in this respect (see Kuhn 1970: 161), I am not concerned here with what Kuhn’s final verdict would have been but rather claim that the economic discipline has already reached a paradigmatic status – otherwise the intensifying discussion on (a lack of) paradigmatic pluralism in economics would be groundless.

³ I am eagerly conceding that ‘falsification’ is not the term used by Kuhn in this context and that he rejected the idea that falsification is a sufficient criterium for paradigm shifts. However, Kuhn stresses the influence of ‘empirical anomalies’ – which are nothing else than violations of “empirical paradigm-induced expectations that govern normal science” (Kuhn 1970: 52f.), i.e. can be taken as falsifications.

⁴ Some reader may argue that Walras and Marshall belong to different paradigms. This is not my understanding of a paradigm: although Walrasian and Marshallian approaches differ in methodological perspectives, yet they share the same analytical core – which is why I would rather rate them as variants of the same paradigm.

⁵ At this point, we have to distinguish between the non-occurrence of a scientific revolution because the economic discipline is still in a pre-paradigmatic state and the non-occurrence because of the resilience of the incumbent paradigm. In fact, the economic discipline at the time of the publication of the *General Theory* was most certainly still in a pre-paradigmatic state, yet Keynes’s seemingly tried to shift the path economics was about to take (and, probably, was already further down the road in the UK than in the US and continental Europe) in becoming a mono-paradigmatic science after WW2. It is in this sense (only), that Keynes’s new economics could be seen as revolutionary in a Kuhnian sense and that this revolution finally failed.

⁶ The disequilibrium economics of Robert Clower and the ‘rationing approach’ of Edmond Malinvaud are probably extreme examples of Walrasian interpretations of Keynes’s theoretical constructs, completely ignoring his analysis but merely inferring what Keynes must have “[...] had in the back of his mind” (Clower 1965: 290).

Although Thomas (2020) found this analysis ‘insightful’ (see above), he criticises P&W for running into an internal inconsistency: “[...] if P&W are right in declaring Keynes’s ideas to be superior, then they must be wrong in thinking that Keynes and WGE [Walrasian General Equilibrium, A.H.] present incommensurate paradigms. To by-pass this contradiction, P&W assume the virtues of a pre-Kuhnian philosophy of science and use it to contrast Keynes and WGE. But this resorts to a philosophy that their Kuhnian meta-framework overtly discards” (Thomas 2020, 1423). The solution he proposes is to abandon the ‘Kuhnian prison’ as the backdrop for a criticism of Walrasian general equilibrium economics and to adopt “the philosophical attitude of critical rationalism” (Thomas 2020, 1415).

The incommensurability, incompatibility and incomparability of paradigms

I would like to begin my brief remarks with a disclaimer: I do not believe an economics journal to be the right place for a discussion of the philosophy and sociology of knowledge of Thomas Kuhn⁷. Although it must be acknowledged that Kuhn’s conceptions of the ‘paradigm’ and ‘incommensurability’ are certainly vague and in need of interpretation, I will not engage in discussing what Kuhn meant or what Kuhn really meant. Therefore, I am not discussing whether Kuhn took ‘incommensurability’ and ‘incomparability’ as synonymous or, at least, supplementary⁸, or whether he saw his philosophy of science as incompatible or even incommensurate (and, therefore, incomparable?) with critical rationalism. Rather, I take those parts of Kuhn’s theory

⁷ To stress the point: I am not disallowing methodological discussions based on Kuhnian philosophy of science in economics journals – economics journal shall publish whatever the editors appraise as appropriate. And, as far as I am concerned, methodological discussions related to economic theorising should always be welcomed in economics journals. Having said that, I honestly believe, that a broader Popperian critique of the Kuhnian philosophy (or sociology) of science is better placed in philosophy journals – which is why I concentrate my comments on those issues related to a better understanding of Walrasian economists’ failure to come to terms with Keynes’s new economics.

⁸ To be sure: I do not claim to know what Kuhn meant by ‘incommensurability’ and whether he took this term as synonymous with the term ‘incompatibility’. However, the arguments to be presented are in need of a clarification of these terms and their relations: Although some sources define incommensurability as something being immeasurable/incomparable, I take paradigms to be incommensurable because they are based on alternative ontologies. Incommensurability is, therefore, a necessary characteristic of different paradigms. However, that does not rule out the possibility that these paradigms can be compared. This is even the case when comparison is supposed to lead to evaluative judgements as long as the standards for such judgements are clearly defined and reasonable. Incompatibility is yet another feature which means that different parts (theories, methods, models) cannot consistently be joint. We could add more terms or concepts such as ‘inconsistency’ which Lakatos uses in describing rivalling SRPs and could discuss whether he rejects the notion of incommensurability with respect to SRPs – challenging my proposition that Lakatos SRPs can be taken as similar in conceptual meaning to Kuhn’s paradigms. However, this would distract from the scope of this note. Suffice to say that Lakatos does not reject the concept of incommensurability with respect to SRPs but appears to claim that incommensurability precludes the rational choice between SRPs – a conclusion readily accepted in the context of my remarks but contested in the philosophical realm (see e.g. Miner 1998).

eclectically – of course, as I understand them or as I believe them to make sense⁹ – which I rate as useful in understanding the development of the economic discipline.

The moodiness of Kuhn's concept of a paradigm is legendary: it is said that his *Structure of Scientific Revolutions* (SSR) contains as many as 21 different definitions of what a paradigm is (see Masterman 1970). This is why it might be advisable to borrow more definite content from the Lakatosian concept of Scientific Research Programmes (SRP), which is less catchy but similar in conceptual meaning: a paradigm or SRP is the set of theories and models which form the backbone of scientific inquiry. What is more important than the label is the content: paradigms or SRPs comprise three dimensions:

1. The *ontological or heuristic dimension* is concerned with the essence of the object of inquiry: its basic constituents. It represents the 'world view' underlying a paradigm or, as Schumpeter termed it, its 'pre-analytic vision'.
2. The *epistemological dimension* breaks down the pre-analytical vision situated in the ontological dimension into core and auxiliary assumptions or, in Lakatosian terms, determines the 'negative heuristic' which "specifies certain claims of the research programme as not revisable" (Brahmachari 2016, p. 5) and the 'positive heuristic' forming a protective belt around the core axioms. This can be tinkered with if, for instance, empirical evidence or the pursuit of a particular perspective indicate it would be politic to do so.
3. The *methodological dimension* can be seen as 'meta-methodical', as it specifies the procedures accepted by the epistemic community to discriminate between 'truth' and 'non-truth' or 'science' and 'non-science'. It is part of the professionalisation of a scientific discipline to agree on a common methodological foundation.

Given these considerations, the Kuhnian concept of incommensurability – just as moot as the 'paradigm' – may be brought to life: different paradigms are always (as a necessary and sufficient condition) incommensurable, as they are based on different 'world views' or 'pre-analytical visions'.¹⁰ Any set of theories which share the same ontological basis may be incompatible in their epistemological and methodological dimensions – i.e. with respect to their specific assumptions in the protective belt in Lakatosian terms (e.g. the assumption of imperfect markets is obviously incompatible with the assumption of perfect markets) or with regard to their methodical perspective (i.e. taking a static approach versus a dynamic approach) – yet they are certainly

⁹ Moreover, I add, as will be seen below, Lakatosian ideas and terminology wherever I believe them to be more concise, illustrative or meaningful – this may be taken as unforgivable by purists of the philosophy of science. I apologise by pointing out that I am not interested in exegesis but merely try to make sense of such ideas and terminologies.

¹⁰ The most eminent example of a scientific revolution and arguably the analytical foundation of Kuhn's SSR (see Kuhn 1957) – the Copernican cosmological revolution – is based on such a shift in the 'world view' or 'pre-analytic vision' which makes the 'old' geo-centric Ptolemaic paradigm incommensurable with the 'new' helio-centric Copernican paradigm: cosmology is thus either geo- or helio-centric but evidently it cannot be both.

commensurable in forming a common paradigm based on a “[...] strong network of commitments — conceptual, theoretical, instrumental, and methodological” (Kuhn, 1970: 42).¹¹ On the other hand, different paradigms – as incommensurable as they necessarily are – may (and actually will) share a common methodological understanding as a quality-control device and, therefore, may well be compatible in this respect. Finally, I do not see any reason why different paradigms – as incommensurable as they necessarily are – cannot be compared (with respect to their core axioms, their postulates, their policy proposals, etc.) with each other as Thomas (2020) appears to suggest (see my footnote 8). In fact, if different paradigms coexist – a situation pluralists take to be the only healthy state of the economics profession – a comparison of paradigms is needed in order to make an informed choice between the use of any paradigm in the first place (see e.g. Heise 2020a).¹² Moreover, if comparison does not translate into a simple contrasting juxtaposition, modes and objectives of comparison must be conceived. Arguably, verisimilitude (i.e. the likelihood that conjectural knowledge is objective truth) is the most obvious candidate as objective of comparison (and choice). However, if verisimilitude cannot seriously be taken as a rational criterion of comparison and choice due to the methodological restrictions known as the ‘Duhem–Quine critique’¹³, other objectives might be more practical: for instance, the realism of assumptions or the complexity of models (Ockham’s razor) in relating deductive outcome to empirical reality (for a more detailed discussion, see Heise 2020a).

Kuhn’s SSR, Keynes’s GT and Walrasian general equilibrium theorising

With respect to the controversy between P&W and Thomas, these elaborations have the following bearing: I wholeheartedly follow P&W’s argument that Keynes’s *General Theory* incorporates the outlines of an alternative economic paradigm which is incommensurate to theorising on Walrasian General Equilibrium. And, therefore, I endorse the view that most of Keynesianism as depicted in textbooks and accepted by mainstream journals is a misconception of Keynes’s ideas arising from Walrasian distortions – ‘lost in translation’! Moreover, I would personally subscribe to P&W’s view that Keynes’s new paradigm provides a better and more appropriate tool for understanding ‘the real world’ than Walrasian general equilibrium economics – and, if this is to mean that Keynes’s paradigm is superior to WGE, I would also support that conclusion.

¹¹ New Classical Macroeconomics and the different variants of neo- and standard-Keynesianism combine to form the Walrasian ‘Dynamic Stochastic General Equilibrium’ model (DSGE), yet they are incompatible with respect to (protective belt) assumptions of market structures and information availability. In terms of P&W’s contribution, sharing the same paradigms means, with respect to the different Keynesianisms, that they adapt and absorb Keynes’s theoretical constructs into a WGE ‘world view’ or ‘pre-analytic vision’.

¹² Of course, the choice can also be based on forms of compulsion (e.g. career perspectives) or simply ignorance (about rival paradigms).

¹³ According to the ‘Duhem–Quine critique’, only single theoretical statements can be objectively falsified, not entire paradigms. However, even falsifying single components of paradigms may cast light on the capabilities of paradigms and their status as ‘progressive’ or ‘degenerating’ (in Lakatosian parlance). As I have tried to show, the inability of standard neoclassical labour economics to explain the (negligible) impact of minimum wages on employment certainly casts some doubt not only on neoclassical labour market theory but also the entire paradigm (see Heise 2020b).

But this is only my personal view based on my assessment of the core assumptions of what I believe to be Keynes's paradigm as compared to the core assumptions of WGE. Yet this is where Rod Thomas's critique comes in: if there is no objective inter-paradigmatic comparison on the basis of verisimilitude, the choice of a paradigm must be based on more subjective criteria, such as an assessment of assumptions or model structures. Although this cannot be helped – certainly not by rejecting Kuhn's entire approach and replacing it by an alternative (e.g. Popperian 'critical rationalism'), which may well run into exactly the same problem of not being able to objectively discriminate between competing theories¹⁴ – it is simply to accept the pluralistic nature of the economic discipline and to advocate inter-paradigmatic comparison and methodological rigor as quality-control devices to shield the discipline against the accusation of pure relativism.

This, of course, is a crucial point: what are the core assumptions – the world view or pre-analytic vision – of Keynes's new economics in contrast to the core assumptions of WGE? The latter can be named rather easily: the axioms of rationality, (gross) substitution, neutrality of money and ergodicity seem to be unchallenged in order to found a paradigm ontologically describing an *inter-temporal exchange economy optimally allocating scarce resources* as its world view or pre-analytic vision. However, with respect to the new paradigm exposed in the *General Theory*, such core assumptions encapsulating a different world view or pre-analytic vision are less obvious: Keynes not only failed to inform the readers of the *General Theory* about his alternative ontological base, but he also sowed some doubt about the incommensurability of his new economics with WGE (or, rather, the Marshallian version of that paradigm) when he called his magnum opus 'general' instead of 'alternative' and at various occasions declared (neo-)classical economics to be the specific (full employment, full capital utilisation) version of his more general approach¹⁵ – does that not imply the compatibility and, indeed, commensurability of Keynes's ideas and WGE?¹⁶ This at least appears to have been the appraisal of most fellow economists starting the chicken-and-egg discussion about which approach is the more general and which is the more specific. And P&W happen not to inform their readers about the evidence on which they built their judgement of incommensurability. Or, to put it more precisely: what is the incommensurable world view or pre-analytic vision in Keynes's *General Theory* that sets it apart from the exchange paradigm of mainstream WGE?

Earlier versions of Book I of the *General Theory*, unfortunately omitted in later revisions for the 'principle of effective demand', indicate that Keynes rejected the ontological basis of the exchange paradigm (which he labelled 'barter', 'real exchange' or 'cooperative economy') for something he called the 'monetary economy' or 'entrepreneur economy' (see Keynes 1979a; Keynes 1979b). Although Keynes remained rather silent about what exactly – in terms of its axiomatic structures – characterises this new paradigm and although he was not sufficiently

¹⁴ This assertion is based on Paul Feyerabend's (1975) work and may well be contested – however, I leave this discussion in the hands of the philosophers.

¹⁵ "We are thus led to a more general theory, which includes the classical theory with which we are familiar, as a special case" (Keynes 1936: XXIII).

¹⁶ And is not Keynes's neglect of market imperfections in the *General Theory* rooted in his desire and strategy to make his paradigm as compatible – and commensurable? – with the orthodoxy?

aware of the importance of at least sketching his ontological basis,¹⁷ this void did not go unnoticed: it has been suggested that Keynes's world view or pre-analytic vision is that of *social reproduction under uncertainty based on nominal obligations* (and private property as its underlying feature; see e.g. Heise 2019), assuming as core axioms non-substitution, monetary non-neutrality and non-ergodicity (see Davidson 1984; Davidson 2005).

Conclusion

This brief note was an attempt to reconcile P&W's claim that Keynes's new economics of the *General Theory* and WGE are incommensurable paradigms in a Kuhnian understanding and Thomas's critique that – if they were incommensurable – P&W's appraisal of Keynes's paradigm as a better approximation to the 'real world' than WGE is inconsistent within that very Kuhnian framework¹⁸. Accepting paradigmatic pluralism as the only adequate state of the economic discipline, comparing economic paradigms which are necessarily incommensurable must become an acknowledged branch of scientific inquiry within the field of economics in order to prepare for the informed (but not necessarily an invariably determinate) choice between competing paradigms which every scientist has to make – and which P&W obviously made in favour of Keynes's new economic paradigm, yet without sufficiently disclosing their selection procedure to convince Rod Thomas.

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¹⁷ Which is something of a mystery, for he accused mainstream theory of precisely such "a lack in clearness and generality in the premises" (Keynes 1936: XXI).

¹⁸ Of course, if one denies or rejects my postulate of an analytic distinction between incommensurability and incomparability of paradigms, my attempt of reconciliation must be of no avail.

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