

Ontology and Pluralism: Towards a Cognitive Map of Four Prevailing Ontological Foundations for Economics

Ontology and pluralism are concepts which can be mutually supporting. Many of the recent Heterodox approaches have developed and deployed critiques of Neoclassical theory's ontological foundations or assumptions. This paper argues that making explicit both the philosophical and scientific ontological commitments of Heterodox and Marxist economics furthers a pluralist project in economics. It does so by advancing the idea of "Ontologically Reflexive Pluralism", a term developed by Bigo and Negru, developing an overview of four ontological approaches to economics which aid both a critique of Neoclassical theory and dialogue and debate between Heterodox and Marxist economists. Specifically this paper discusses ontology, pluralism, and their interrelation, the differences between Heterodox and Marxist critiques of the ahistorical character of Neoclassical economics most significantly how each account for the Neoclassical basis in ontological atomism, and articulates four approaches to ontology facilitating a pluralist project and mutually strengthening dialogue and debate between Heterodox and Marxist economists.

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PRELIMINARY DRAFT

Introduction

In 2008, the *Journal of Philosophical Economics* published a special issue focusing on pluralism, heterodoxy, and ontology. The various insightful and important contributions made by various authors, most notably Sheila Dow and co-authors Vinca Bigo and Ioana Negru, are used by the present study's intervention into the ongoing debate on pluralism and ontology. It is commonly contended that an open systems approach to ontology, one argued for and advocated by critical realists most notably Tony Lawson, provides an ontological basis for pluralism. The differences between the various heterodox branches of economics are determined by the different focus each takes on specific aspects of socio-economic reality. This study takes issue with the limitation of meta-methodology, or philosophical ontology, to open versus closed systems. Specifically it is argued that a the broader conception of ontological atomism and organicism can be more fruitfully employed. This idea is developed in and through Bigo and Negru's notion of ontologically reflexive pluralism. In considering the various criticisms of, and explanations for, the loss of history in mainstream economics, four approaches to ontology are articulated fostering reflexive pluralism. This paper concludes by considering future areas of study enabled by an ontologically four pronged approach to ontologically reflexive pluralism.

Ontology and Pluralism

While the notion of pluralism is contested, there is consensus over the ontological requirements for pluralism. These requirements include open systems, recognition of the complexity of social reality, and a division of labor between the various branches of heterodox economics investigating various aspects of a complex social reality.¹ Lawson asserts that a common ontology unifies all branches of heterodox economics each examining its own aspect of the socio-economic order:

In rejecting the presumption that methods of mathematical-deductivist modeling are universally valid in the social realm (and in seeking alternatives), heterodox economists, implicitly at least, are taking a view on the nature of social reality. So the heterodox rejection of the mainstream position, in the end, presupposes an ontological assessment, whether or not the latter is recognized or acknowledged.²

Sheila Dow's notion of structured pluralism develops Lawson's idea further. At the meta-methodological level, there is only one heterodox methodology, that of open systems. The different branches of heterodox economics engage in a division of labor in which each has its own ontological commitments based on that aspect, or structure, of socioeconomic reality with which it is concerned. As Dow explains:

Going back to the ontological foundations for methodological pluralism, the structuring of social reality (and the language which plays an important part in that reality) suggests a structuring also at the epistemological level. Structured pluralism, then, is the advocacy of the range of methodological approaches which, like the range of social structures is not infinite.³

Bigo and Negru's notion of an "ontologically reflexive pluralism" follows suit. They argue that fragmentation continues because explicitness over ontology is lacking.

¹ Andrew Mearman, "Pluralism and Heterodoxy: Introduction to the Special Issue," *The Journal of Philosophical Economics* 2 (Special Issue 2008): 12.

² Tony Lawson, *Reorienting Economics* (New York: Routledge, 2003), 165.

³ Sheila Dow, "Structured Pluralism," *Journal of Economic Methodology* 11, no. 3 (2004): 287-288

They also argue that pluralism is reflexive and integrative. It is reflexive because, following Lawson, it advocates for ontological explicitness through explicit discussions of, and reflection on, the nature of the social realm, or philosophical ontology, and specific domains, structures, or ontological commitments of the various heterodox branches, also known as scientific ontology. Integration is utilized as a way to combat fragmentation. They argue, following Dow, that pluralism in open systems must be structured to have meaning; the ontological foundation for methodological pluralism occurs through the structuring of reality. One important factor contributing to fragmentation is the methodological specialization, the division of labor, required by a structured reality. Integration then involves not only seeking commonality. It also requires integration through assembly and resolution.⁴

Dow also poses a critical question, one potentially subversive of this notion of pluralism: Does an open versus closed systems approach create a dualism? In other words, are there, perhaps, a range of open and closed systems? This question is potentially subversive because critical realists argue for a single open systems approach where differences within heterodoxy concern specific ontological commitments, the division of labor. As Dow states: "A key issue is how far is it reasonable to see heterodox economists as having a shared ontology, beyond the understanding of the social system as being open."⁵ Dow concludes that, while heterodox economists agree that the system is open, there is room for differing open

⁴ Vinca Bigo and Ioana Negru, "From Fragmentation to Ontologically Reflexive Pluralism," *The Journal of Philosophical Economics* 2 (Special Issue 2008): 133-134, 139.

⁵ Sheila C. Dow, "Plurality in Orthodox and Heterodox Economics," *The Journal of Philosophical Economics* 2 (Special Issue 2008): 86.

systems ontologies supporting different knowledge systems. Scientific progress occurs by the activities within and between different schools through dialogue and debate. Thus while there can only be one approach at the meta-methodological level, open systems, it is also compatible with a range of different methods based on different ontological commitments.

It is a reasonable assumption that all heterodox approaches are united by a rejection of the closed systems ontology presupposed by the formal mathematical models continuously used by mainstream economists. It is also possible, however, to push Dow's critical question a little further by asking the following : Is it reasonable to limit meta-methodology, or philosophical ontology, to open systems? It will be argued that it is not reasonable for the following interrelated reasons: while it must be acknowledged that formal mathematical models, and the closed systems ontology they require, are a mainstay of orthodox economics, it does not follow that open systems must therefore monopolize meta-methodology and; the monopolization of meta- methodology by open systems forecloses an avenue of research and inquiry important for certain branches of Marxist political economy as it pertains to the ontological specificity of capitalism.

It is Lawson's vigorous contention that the method of deductive mathematical formalism is the distinguishing feature of mainstream economics, presupposing systematic closure. For this reason he makes it the central feature of both his critique of mainstream theory and articulation of the critical realist

alternative.⁶ It can also be described as the philosophical ontology of mainstream economics impinging upon its scientific ontology. Lawson argues for a critical realist or open system ontology which is social (depends on transformative human agency), internally related, and processual. All of these features are features of a critical realist philosophical ontology.⁷ They are shared by others, notably Alfred North Whitehead's ontological organicism and, in the Marxist camp, Bertell Ollman's internal relations philosophy. All of these features pertain to the philosophical ontology of ontological organicism, which is counterposed to ontological atomism. Both ontological organicism and ontological atomism are concepts for two philosophical ontologies covering, respectively, the heterodox and orthodox traditions in economics. While it is worth noting again Lawson's contention that mathematical formalism is the main feature of mainstream economics, and hence the insistence on open systems, it is not the only feature of ontological organicism.

The limitation of ontological organicism to open systems concerns Lawson's derivation of 1) atomism from mathematical-deductive systems and 2) atomism defined as isolation. Atomism is not reducible to isolation; it is a general ontological approach, a philosophical ontology or meta-methodology, and isolation is just one of its aspects. To paraphrase Marx's critique of Ricardo, Lawson's treatment of atomism is too concrete; therefore, atomism should be treated as a general approach first before dealing with its instances such as isolation, mathematical-deduction, theoretical fictions, etc. This idea, and its consequences, are elaborated below.

⁶ Lawson, *Reorienting*, 8.

⁷ Lawson, *Reorienting*, 16-17.

Marxist Political Economy and Heterodoxy: Towards Ontological Reflexivity

Marxist political economy does not exist in a bubble and is certainly not the only approach that stands in opposition to mainstream or Neoclassical theories. In this sense it is a member of the Heterodox camp. Heterodoxy refers to any approach to economics that opposes Neoclassical theory's self-professed monopoly on science.⁸ There are three interrelated issues stemming from this description of heterodoxy. Firstly, the constitution of the distinction between heterodoxy and orthodoxy affects the notion of pluralism.⁹ The concern for pluralism stems, in part, from the inability of Neoclassical theory to deal with real world issues. Advocacy for pluralism concerns the critical interrogation of the methodological inadequacies of orthodox economics and the search for methodological solutions. Secondly, while this description places Marxist approaches in the Heterodox camp, it says little about Heterodoxy itself or the character of the various oppositions to mainstream economics. Lastly, there is the ongoing problem of fragmentation identified by Bigo and Negru. This present study deals first with the resolution of fragmentation.

It has been argued that ontology provides a basis for a non-fragmentary pluralism. Bigo and Negru's ontologically reflexive pluralism exemplifies such an approach. The delineation of four different approaches to ontology furthers this type of integration, allowing for dialogue and debate between the Heterodox and

⁸ Ioana Negru, "Reflections on Pluralism in Economics," *International Journal of Pluralism and Economics Education* 1 (2009): 16, Merman, "Introduction," 6-7.

⁹ Negru, 16.

Marxist traditions. It is a reflexive exercise spelling out what is distinctive about the ontological foundations of Marx's political economy and philosophy. This delineation occurs below.

The first issue identified, the constitution of the distinction between heterodoxy and orthodoxy affecting the notion of pluralism, is best exemplified by the shared heterodox and Marxist criticism of mainstream theory. While there are myriad criticisms of Neoclassical economics, arguably the most prevalent and vexing is that it is ahistorical, suffering from a loss of history. The most serious expression of this criticism is that Neoclassical economics does not study capitalism. Some criticize practices under capitalism that are myopic or strictly focus on the bottom line and ignore other consequences termed "externalities." Others oppose neoliberal free market policies, while others still see capitalism itself as an unjust or undesirable system. In this sense both the heterodox and Marxist traditions deal with social justice issues and perspectives usually left out of the Neoclassical fold. The list includes, but is not limited to, feminism, ecology, anti-imperialism, race, and poverty.

Neoclassicists have responded to and even incorporated some insights derived from these criticisms. Regarding this incorporation Negru states:

However, while mainstream economists extend the focus of inquiry and espouse the directions that have their origins in sciences outside economics, (e.g., evolutionary game theory, behavioral game theory, evolutionary economics, etc.) the lack of engagement with different ontological presuppositions and methods

fails to provide the necessary healthy basis for more substantial degrees of pluralism.¹⁰

Developments within Neoclassical theory which enlarge the scope of inquiry do not, in and of themselves, engage with ontological presuppositions. As Dow (among others) argue, the insistence on formalistic mathematical modeling, is the reason why mainstream theory remains monistic despite change.¹¹ An engagement with ontology is required for reflexive pluralism. Through their meta-axiomatic approach to the description of Neoclassical economics, Christian Arnsperger and Yanis Varoufakis have demonstrated that the developments within Neoclassical theory do not challenge its ontological foundations and in fact reinforce them in such a way that keeps capitalism hidden and out of the range of criticism.¹²

Explanations for the mainstream loss of history have been put forward. For example, Geoffrey Hodgson provides an institutionalist description and explanation for the loss of history in Neoclassical theory and argues for an ontological organicist approach to economics. Basing his account on an “evolutionary explanation”¹³ incorporated in the Population-Variety-Reproduction-Selection¹⁴ model, Lawson

¹⁰ Negru, 17.

¹¹ Dow, “Orthodox and Heterodox,” 76-80.

¹² Their description and criticism of Neoclassical Economics stems from 2 different papers, a shorter published version in the *Post-Autistic Economics Review*: Christian Arnsperger and Yanis Varoufakis, “What is Neoclassical Economics? The Three Axioms Responsible for its Theoretical Oeuvre, Practical Irrelevance, and, thus, Discursive Power,” *Post-Autistic Economics Review*, no. 38 (July 2006): 2-12; and the original, longer version of the paper Christian Arnsperger and Yanis Varoufakis, June 2005, “A Most Peculiar Failure: How Neoclassical Economics Turns Theoretical Failure into Academic and Political Power,” MS. I am indebted to Yanis Varoufakis for kindly providing me with the original and longer version of the paper which contains points missing from the shorter, published version.

¹³ Lawson, *Reorienting Economics*, 251.

¹⁴ Lawson, *Reorienting Economics*, 254. Lawson explains this model on pages 254-256, and in chapter 5 of the same work.

investigates, historically, the wedding to and development of mathematics in mainstream economics, with particular emphasis on France.

Ontology is fundamental to any social theory. As such it provides a basis for the critique of Neoclassical economics, pluralism, and dialogue and debate between Heterodox and Marxist traditions. Nearly all Heterodox and Marxist theories are underwritten by ontological organicism. Neoclassical economics is underwritten by ontological atomism, which is responsible for the loss of history.

The crux of the issue is as follows: Why is mainstream economics underwritten by ontological atomism? Heterodox approaches employ ontological organicism and as such are historically oriented. The problem of the various heterodox critiques of Neoclassical theory is that they fail to account for the use of ontological atomism in Neoclassical economics except as a subjective error on the part of its practitioners. To clarify, these explanations do not account for the specific ontological character of capitalism. The key question now becomes: What if there is something about the capitalist socio-economic order which itself appears to be ontologically and/or socially atomistic which mainstream economists proceed to investigate and theorize? In other words, what if there is a socio-historical basis for atomism or perhaps that, for example, there is something atomistic about social relations and interaction under capitalism? What is required is an organicist ontology that accounts for and explains the fact of the apparent ontological and social atomism. It is precisely these observations, the appearance of atomism under capitalism and the organic grounding of apparently atomic social relations, that are

foreclosed with a focus on open versus closed systems approach to philosophical ontology, which are of importance to certain branches of Marxist political economy. These implications also spur the development of an ontologically reflexive form of pluralism by requiring the identification and description of a more elaborate set of ontological approaches to economics: thoroughgoing atomism (ontological atomism), thoroughgoing organicism (ontological organicism), atomistically based organicism, and organically based atomism. Each will be considered in turn.

Four Prevailing Ontological Approaches to Economics

Ontological atomism encompasses all ontological approaches which assume that relations are external, or that the qualities of an entity, or an atom, are independent of its relations, possessing qualities without being a quality itself.¹⁵ The atoms or entities are not considered to be adjectives of their socio-historical context. Simply stated, this is the ontological basis for the ahistorical character of, or loss of history from, Neoclassical theory.

Ontological organicism encompasses all ontological approaches which assume that relations are internal, that the qualities of an entity are the outcome of its relations.¹⁶ What identifies an ontology as organic is the notion that an entity's relations are internally and contextually dependent on processes and other entities while, simultaneously, constitutive of those processes and entities. That relations are organic means that they are socio-historical.

¹⁵ Edward Winslow, "Atomism and Organicism," *Elgar Companion to Institutional and Evolutionary Economics* eds., Geoffrey M. Hodgson, Warren J. Samuels, and Marc R. Tool (Brookfield: Aldershot, 1994), 11-12.

¹⁶ Winslow, "Atomism and Organicism," 12.

This description seems to create a dualism of two competing and non-overlapping ontological approaches which is problematic given the developments within Neoclassical economics and the problem of ontological atomism viewed simply as a subjective error. Therefore, two further ontological approaches developed are termed atomistically based organicism and organically based atomism.

Thoroughgoing atomism is descriptive of the Neoclassical theories which dominated the pre-World War Two era. But the developments within Neoclassical theory documented by Negru, Dow, and co-authors Arnsperger and Varoufakis render a straightforward atomic characterization of these economic theories problematic. And yet the core ontology remains atomic. Therefore, for theories such as these, the term “atomistically based organism” is applied to denote that while there are organic or historical elements to the theory, its core ontology is atomic. This label also applies, for example, to Analytical Marxism which while employing the methods of Neoclassical economics and the received view of science,¹⁷ do so with the aid of historically situated and derived (organic) concepts such as class struggle and exploitation therefore demonstrating the arbitrary nature of ontological atomism. “Equilibrium” and “utility or profit maximization” can easily be substituted by “exploitation” and “class struggle.” In assessing the criticism that Neoclassical economics lacks empirical content, Geoffrey Hodgson states “The problem with these assumptions is not primarily their lack of empirical

¹⁷ See John Roemer “Introduction,” “New Directions in the Marxian Theory of Exploitation and Class,” and “‘Rational Choice’ Marxism: Some Issues of Method and Substance,” in *Analytical Marxism* (New York: Cambridge University Press, 1986), 81-113, 191-201.

corroboration. It is that they are vessels into which *any* empirical content can be filled. The problem with the theory is not that it lacks empirical validation but that any conceivable fact about behaviour... can be fitted into the theory.”¹⁸ The Neoclassical economist can build his or her theory out of whatever material (empirical, historical, or otherwise) he or she wishes. If, however, relations are internal and internal relations are characteristic of organicist ontologies, then, by virtue of being constrained by historical determinants, concepts and techniques based in ontological organicism cannot have the same arbitrary nature as atomistically based axioms, concepts, and techniques. Organicism is not subject to whim but rather to historical determinants.

The final ontological approach to be considered, organically based atomism, is attributed to Marx’s critical approach to political economy. Martha Campbell’s critical assessment of Geoffrey Hodgson provides a useful foil for the Heterodox thorough-going organicism, and the Marxist organically based atomism. Campbell argues that Marx’s analysis of value is consistent with Hodgson’s Institutionalism; value relations incorporate cultural and historical aspects because economic life is always culturally and historically conditioned. The difference for Campbell occurs with Marx’s recognition that atomism is an aspect of life under capitalism:

The true difference [between the Institutional and Marx’s understanding of money, its specificity under capitalism rendered through original accumulation] to which both paths lead is that, for Marx, atomism exists in reality; it is not a figment of the neoclassical imagination. Likewise, the abstract character of value –

¹⁸ Geoffrey Hodgson, *How Economics Forgot History: the Problem of Historical Specificity in Social Science* (New York: Routledge, 2001), 243.

its singleness and qualitative sameness – is real. Further, Marx’s argument makes these characteristics out to be unique to capitalism and to constitute its difference from earlier societies. Both require money in its uniquely capitalist role. As argued in connection with Marx’s presentation of the exchange process, the abstraction value, or the qualitative equivalent of commodities, cannot exist unless it has an embodiment in money. In addition, because, as value, social interdependence is abstract and embodied as money, atomism is the way people relate to each other.¹⁹

To the extent that atomism is indeed descriptive of an aspect of social reality, atomism is itself a product of organic interdependence and must be grounded organically²⁰ hence the term organically based atomism.

Marx’s organically based atomism represents what is distinctive about his approach to the science of economics at the level of ontology and what is ontologically distinctive about capitalism. A full explanation of this ontology cannot be provided here, however its three essential aspects can be briefly described. First, it includes the connection between primitive or original accumulation, social atomism, and alienation. Primitive accumulation is the process by which the conditions for capitalism are established: these conditions are, simultaneously, conditions of social atomism and alienation. It provides a socio-historical, or organicist, explanation for the fact of social atomism. Secondly, organically based atomism provides the ontological underpinnings of the value categories developed in the various volumes of *Capital*. This effects both the positive description of capitalism, its inner laws and essential relations, as well as Marx’s critique of

¹⁹ Martha Campbell, *The Objectivity of Value versus the Idea of habitual Action*, 83-84.

²⁰ Edward Winslow, “Organic Interdependence, Uncertainty and Economic Analysis,” *The Quarterly Journal of the Royal Economic Society* 99, no. 398 (1989): 1180.

political economy. To that end commodity fetishism can be used to criticize the Neoclassical loss of history, while the trinity formula can be used to criticize its theoretical representation of capitalism. Through both the positive description of capitalism and the critique of political economy, Marx is able to account for and criticize the use of ontological atomism in Neoclassical theory. Thirdly, organically based atomism enables Marx's characterization of classical versus vulgar political economy. This characterization relates to the fallacy of misplaced concreteness, which is Whitehead's critical concept concerning atomism and its treatment of entities in isolation from the various processes and relations that constitute them. Neoclassical economics, by ignoring essential relations and processes, is a species of vulgar economics more vulgar than the vulgar economics of Marx's time.

Summary and Conclusion

This study intervenes in the discussion and debate over the relationship between ontology and pluralism by critically assessing the reduction of meta-methodology or philosophical ontology to open versus closed systems, and critically assessing the explanations of the ahistorical character of mainstream economic theory. If open versus closed systems frame the ontological issue, one is left explaining only the prevalence of mathematics in economics. This frame forecloses the question of the ontological specificity of capitalism and a line of questioning and inquiry important for some branches of Marxist political economy. The notion of an ontologically reflexive form of pluralism is utilized to reflect on the four prevailing philosophical ontologies underwriting orthodox and heterodox economics. To appreciate the scope of the problems of mainstream economics, all of the various

components of ontological atomism ought to be investigated. The enlarged philosophical ontology provided by the covering concepts of ontological atomism and organicism are helpful in this regard. Viewing ontological atomism in its larger frame enables the question of the ontological specificity of capitalism by way of the notion of an organically based atomism.

While this study focuses on philosophical ontology, issues of scientific ontology are of importance for methodological pluralism. To that end, three areas for future research are suggested. The first is a critical assessment of the various heterodox critiques of Marx's labor theory of value. Relatedly and secondly, the objectivity of value under capitalism for a Marxist approach to political economy should be developed in light of this critical assessment. Finally a specifically Marxist critique of the ahistorical character of mainstream economics should also be developed. All of these facets refer both to scientific ontology and aspects of Marx's organically based atomism and open lines of dialogue and debate between Marxists political economists and others working within the heterodox tradition.