

The Limits of Synthesis in Neoclassical Economics and Opportunities for Heterodox Economics

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Motivation

- When the proponents of certain analytical schemes realise insufficient explanatory and predictive power their schemes in relation to the phenomena and processes observed in the real economy, theoretical synthesis occurs in economics.
- However, previous neoclassical synthesis (NS) and new neoclassical synthesis (NNS) in mainstream neoclassical economics do not provide lasting answers to these practical challenges. The Covid situation has confirmed this.
- This is a window of opportunity for heterodox economics to check its ideas and methodological schemes for explanation and prediction of actual social and economic processes.

Outline

1. The role and types of theoretical synthesis.
2. NS and NNS as examples of intradisciplinary synthesis in neoclassical economics.
3. Methodological limits of intradisciplinary syntheses in neoclassical economics.
4. “*Methodological self-determination*” of heterodox economics, and meso-foundations.
5. Conclusion.

1. THE ROLE AND TYPES OF THEORETICAL SYNTHESIS

The role of theoretical synthesis

- Theoretical synthesis is a necessary stage in the development of any scientific discipline.
- It is due not only to the development of proper scientific ideas, but is caused by changes in real practice, which require adequate scientific analysis and updating of methodology.
- Theoretical synthesis in scientific disciplines is when new doctrines, the necessary revision of basic premises and the renewal of methodology are integrated in already existing theoretical knowledge. As a result, new integrated knowledge is formed.

Types of theoretical synthesis

- **Multidisciplinary** synthesis – synthesis between different sciences (disciplines) working with different objects of research but sharing the same paradigm or transdisciplinary methodology (e.g. system methodology).
- **Interdisciplinary** synthesis – synthesis between different sciences working with one object (e.g. economic behavior in neuroeconomics).
- **Intradisciplinary** synthesis - synthesis between theories (sometimes previously competing with each other) in one science. **NS and NNS in neoclassical economics are examples.**

Intradisciplinary synthesis

- Each time when such a synthesis occurs, competing analytical frameworks are combined and “**methodological struggles** <between them> **are ended**” (*Woodford, 2010: 18*).
- The result of the synthesis is both the formation of more adequate theoretical neoclassical concepts, and the relevant programmes and instruments of economic policy based on them, which are demanded in practice.

2. NS AND NNS AS INTRADISCIPLINARY SYNTHESES IN NEOCLASSICAL ECONOMICS

Prehistory of neoclassical synthesis

- There was intense debate in the 1920-30s about economic dynamics and stabilisation policies, with many explanations for cycles and depressions. Keynes's "General Theory of Employment, Interest and Money" (1936) was contrasted with them.
- Attempts to present synthetic expositions of macroeconomic theory that could deal with the Keynesian challenge were elaborated by Hicks, Haberler, and Lundberg (*Trautwein, 2014*).
- But they "lost out" to Samuelson's "neoclassical synthesis" (*Samuelson, 1947, 1955*).

Neoclassical synthesis

- The essence of neoclassical synthesis of the 1940-50s was the combination of Keynesian ideas for short term analysis of economy and neoclassical economics ideas for the long term.
- It was assumed that the correction of the economy in the short term can be achieved on the basis of measures of state fiscal and monetary policy, but recognition continued that long-term equilibrium is achieved without government intervention (*Policonomics, 2021*).
- “...neoclassical theory of efficient allocation of resources "comes into its own", once Keynesian macroeconomic management of money demand eliminates involuntary unemployment and inflation” (*Samuelson, 1955: vi*).

Neoclassical synthesis cont.

- Neoclassical synthesis has become a relevant theoretical answer to the problems of the Great Depression and substantiated the need for state participation and regulation of the economy, primarily in the monetary sphere.
- The practical consequence of the neoclassical synthesis was the support and justification of numerous programmes of state regulation of the capitalist economy, which were quite successful before the 1973–75 recession triggered by the 1973 oil crisis.

Why new neoclassical synthesis?

- Then in the 1970s approaches based on NS failed to explain and manage new economic phenomenon such as stagflation. “Fighting the recession using traditional Keynesian methods, the authorities only exacerbate inflation; fighting inflation, they exacerbate the recession” (*Menshikov, 2007: 324*). This situation was interpreted as a crisis of Keynesian regulation of the economy .
- Also, the internal theoretical contradiction of NS was identified: Walrasian microeconomics with equilibrium of markets and general equilibrium cannot be aggregated into Keynesian macroeconomics, where markets do not come to equilibrium.

New neoclassical synthesis

- NNS (*Goodfriend, King, 1997; Woodford, 2009; Laffargue, Malgrange, Morin, 2012*) formed in the 1990s at “the intersection” of new Keynesian economics (which contributed nominal rigidities) and new classical (macro) economics (which contributed the methodology behind the real business cycle theory).
- The main result of this synthesis was the development of dynamic stochastic general equilibrium (DSGE) models. Currently, DSGE models are the most popular in neoclassical economics and are widely used in practice, particularly by a number of Central Banks.

Criticism of NS and NNS: methodological principles of neoclassical economics

- The methodological aspect is connected with criticism of Marshallian constructs, namely supply and demand curves, and **the principle of methodological individualism** underlying both syntheses.
- **Equilibrium prerequisites** (and related concepts of ergodicity and infinite horizons) in standard models, in particular in DSGE models, are a barrier to explaining deviations from equilibrium states and identifying the causes of crises (*Korinek, 2017:3*).

Criticism of NS and NNS: maths

- Mathematics underlying both syntheses is constantly criticised by heterodox economists (*Robinson, 1973; Harris, 1990; Foley, 2012, 2014; Stiglitz, 2018*).
- There was a "Samuelsonian vice", when there is "the temptation to change the formulation of an abstract problem so that it corresponds to the existing mathematical tools, and not to look for new tools adequate to the existing task" (*Foley, 2012:91*).
- Samuelson used optimisation mathematics from thermodynamics as a basis for mathematical economics (*ibid*).

Criticism of NS and NNS: micro-foundations

- As a result, macroeconomics began to be based on "deriving macroeconomic behavioural functional relationships from individual maximisation decisions" (*Harris, 1990: 435*). It was based on "wrong micro-foundations" (*Stiglitz, 2018*).
- However, in the real economy, there are many emerging phenomena that cannot be traced back to their microeconomic origin (*Korinek, 2017:3*).

3. METHODOLOGICAL LIMITS OF INTRADISCIPLINARY SYNTHESSES IN NEOCLASSICAL ECONOMICS

Methodological prerequisites - *pro*

- On the one hand, reliance on a “proven system” of methodological prerequisites (among them methodological individualism, the rational utility maximisation hypothesis, the market equilibrium principle and optimisation mathematics) makes it possible to implement new ideas and approaches into the “main body” of neoclassical economic theory, which at one time became the basis of both the "old" and the new neoclassical synthesis.

Methodological prerequisites - *contra*

- On the other hand, the very set of these prerequisites becomes a kind of "Procrustean bed", limiting the development of economic theory to the changed state of national and world economies.
- It is why critics of the new neoclassical synthesis call it the "new classical counter-revolution in economic theory" and "sanitised Samuelsonian cousin" of the neoclassical synthesis, "representing a return to a formally more sophisticated, but economically bankrupt, version of the classical dichotomy" (Foley, 2014: 17).

Possible syntheses?

- Now the process of adaptation of new ideas and approaches, e.g. behavioural economics, historical and institutional analysis, etc, is ongoing in neoclassical economics.
- It allows some authors to say that the neoclassical mainstream becomes more pluralistic, and less individualistic, taking into account different types of path dependency and employing a much broader group of models and analytical tools (*Hands, 2015: 70*).
- Nevertheless, neoclassical economics, despite undoubted achievements, does not sufficiently reflect current economic change and is limited in its methodological prerequisites.

Window of opportunities for heterodox economics

- These changes include increased turbulence and heterogeneity due to financial and health crises, highly nonlinear dynamics of economic fluctuations, complexity caused among other things by the development of digital technologies, the pluralism of the institutional design of economic processes, an increase in the interdependence of processes in national economies and the need for global economic coordination.
- In these conditions, heterodox economics faces the challenge of defining its **own methodological prerequisites**, the reliance on which will make it possible to synthesise the research areas developing within its framework.

4. “METHODODOLOGICAL SELF- DETERMINATION” OF HETERODOX ECONOMICS AND MESO-FOUNDATIONS

Heterodox economics prerequisites

- Heterodox economics faces the challenge of searching for its own theoretical research subject and methodological prerequisites to define itself as a promising economic direction for the analysis of the modern complex economy.
- We tried to extract these methodological prerequisites from reading **evolutionary-institutional economic literature** on original (Veblenian) institutionalism, Schumpeterian and neo-Schumpeterian economics, post-Keynesian economics, Marxian political economy, etc.

Mesolevel as a research subject

- Such a subject with a set of methodological prerequisites corresponding to its study can be the mesolevel of the economy - in contrast to the microlevel (or the aggregated macrolevel) in neoclassical economics, - where the main interactions in complex economic systems take place (*Arthur, 2013*) as well as their structuring and institutionalisation (*Elsner, 2010*).
- In neoclassical economics the mesolevel “is understood either as a group (“median”) **level of aggregation of individuals** ... and does not differ against the background of micro and macro levels, and therefore is ignored” (*Kirdina, 2015: 54*).

Mesolevel in heterodox economics

- In heterodox economics (mesoeconomics, or evolutionary-institutional economics) mesolevel is understood as an implicitly implied level of the economy, at which objectification of the needs and aspirations of economic agents takes place and their transformation into independent **structures necessary for the functioning** of the entire economic system.
- These structures reflecting **the emergent effects** of the system, and they are “too complex to be satisfactorily described from a micro perspective, given our current state of knowledge” (*Korinek, 2017: 3*).

Mesolevel in heterodox economics cont.

- “The methodological meaning of identifying the mesolevel is that it is at this level that structures are formed as the main characteristic of the system” (*Deryabina, 2018:33*).
- Therefore, in many cases, it is generally sufficient to analyse the economic systems at the mesolevel, since the structures formed at this level already contain the necessary information about the evolution of the system and its self-organisation (*Haken, 2006*).

Methodological prerequisites-1

- Heterodox economics moves away from the microeconomic foundations and principles of additive aggregation adopted in modern neoclassical theory (*Gareev 2010: 47*).
- The economy is considered as a complex system in which mesoeconomic structures arise due to the emergent effects of economic co-evolution processes and are qualitatively different from the microlevel (*Elsner 2007*).
- Heterodox economics abandon the principle of methodological individualism in favor of an approach that focuses on the structures and processes that regulate the environment where economic agents operate.

Methodological prerequisites -2

- In neoclassical economics the main object of analysis is the price coordination mechanism with a predominance of **negative feedbacks**.
- Heterodox economics pays equal attention to the effects of **positive feedbacks**. Such feedbacks ultimately ensure economic growth, but also, they can lead to an imbalance in the economy, including crises.
- The recognition of the role and scale of the spread of positive feedbacks means attention not only to competition coordinating economic processes, but also to other spontaneously emerging coordination mechanisms like **cooperation, redistribution, mergers and acquisitions etc.** (*Dementiev 2002; 2015; Meso-economics of Development ... 2011 : 21*).

Methodological prerequisites - 3

- Heterodox economics is characterised by a systemic view of economic development.
- Heterodox economics moves away from the reductionist approach of the orthodoxy, in which aggregation is the main way of moving from microlevel analysis to macrolevel (which means relying on micro-foundations when considering the processes of meso and macro levels), in favor of a system approach.

Methodological prerequisites -4

- Heterodox economics is distinguished by the view of the economy as a dynamically developing system, in which non static states (or a chain of static states), the vital processes for the economy and the conditions for their occurrence, attract the main attention.
- Accordingly, the formation and development of mesoeconomic structures is viewed as dynamic and from the point of view of the processes that are designed to serve in a dynamic economic system.

Methodological prerequisites - 5

- Heterodox economics takes into account the social conditioning of economic mesostructures; it is characterised by an "institutional view" and an understanding of the social embeddedness of economic processes.
- This approach, from which the features of the development of economic systems are derived, is based not so much on the behavioural characteristics of the agents in the economy, but on the properties of the structures that form it, called **meso-economic foundations**.
- Thus, heterodox economics based on meso-foundations forms different methodological lenses in comparison with mainstream neoclassical micro-macroeconomics.

CONCLUSION

Factors and results of NS and NNS

- The general factors that influenced the syntheses were:
 - the needs of practice,
 - the presence of new (for those times) ideas and creative discussions in the scientific community,
 - the preservation of the methodological categorical core (hard core) of neoclassic economic theory.
- Both syntheses were important milestones in the development of orthodox economic theory. They incorporated some actual ideas and helped to create "new theories for a changing world" in neoclassical economics.

Methodological paradoxes of NS and NNS

- The remaining hard methodological core, which provided the foundations for both syntheses, is at the same time a main limitation on solving the constantly debated problems of orthodox theory. Among them:
 - the low predictive capabilities of neoclassical economics,
 - its models are too generic and unable to take into account the relevant social and material/environmental context,
 - the problem of the “classical dichotomy” was not solved in either synthesis.

Methodological obsolescence?

- Moreover, the peculiarities of the previous methodology greatly enhance the ideological nature of neoclassical economics, its significant "fixation" on micro-foundations, and the preservation of the optimisation mathematics of equilibrium models.
- In modern conditions, which are significantly different from those when the methodological core of neoclassical economic theory was finally formed (mid-twentieth century), adherence to its postulates becomes a limitation on the fruitful development of orthodox neoclassical economics.

Prospects for theoretical synthesis in heterodox economics

- Awareness of the methodological foundations of any scientific direction is one of the conditions for an intradisciplinary theoretical synthesis.
- The set of methodological prerequisites presented, which we called meso-foundations, determines the prospects for the integration of existing heterodox concepts.
- This allows us to hope that theoretical synthesis will take place in heterodox economics, which is a necessary stage in the development of any scientific direction and discipline.

Thank you for your attention!

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