

Claudius Gräbner-Radkowitzsch  
Jakob Kapeller

# ***Systemism***

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Claudius Gräbner-Radkowitzsch

Europa-Universität Flensburg, Department of Pluralist Economics  
Johannes Kepler University Linz, Institute for Comprehensive Analysis of the Economy (ICAE)  
[claudius.graebner-radkowitzsch@uni-flensburg.de](mailto:claudius.graebner-radkowitzsch@uni-flensburg.de)

Jakob Kapeller

University of Duisburg-Essen, Institute for Socio-Economics  
Johannes Kepler University Linz, Institute for Comprehensive Analysis of the Economy (ICAE)  
[jakob.kapeller@uni-due.de](mailto:jakob.kapeller@uni-due.de)

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## Abstract

This entry discusses the concept of ‘systemism’, elaborates how it implicitly underpinned most seminal works of evolutionary-institutional economics, and explains how future research would benefit from making the systemist nature of evolutionary economics more explicit. More precisely, the paper clarifies the ontological and epistemological claims associated with systemism, and describes how the explicit use of systemism can support a pluralist meta-paradigm in heterodox economics and political economy in general, and evolutionary-institutional economics research in particular.

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JEL-Codes: B15, B25, B52, B55, C69

## 1. Systemism in evolutionary-institutional economics

Every research program has a central core of meta-theoretical assumptions about the nature of reality and viable approaches to investigate it. Evolutionary-institutional economics (EIE) is no exception. This entry is concerned with the concept of ‘systemism’, which, as we will argue, has not only implicitly underpinned most seminal works of EIE, but also offers the additional benefit of making central ontological tenets in the works of EIE scholars explicit. We therefore begin by outlining the central elements of ‘systemism’ and how they have been represented in past research in EIE. We then provide more details on the ontological (Section 2) and epistemological claim (Section 3) associated with systemism, before describing in greater detail how the explicit use of systemism can support a pluralist meta-paradigm in heterodox economics and political economy in general, and EIE research in particular (Section 4).

Systemism is based on an interdisciplinary reconstruction of established scientific practiced by the eminent philosopher of science Mario Bunge, who understands systemism as an overarching philosophical framework for research in the social sciences and beyond. In the course of introducing this concept, Bunge makes specific reference to several EIE scholars, such as Thorstein B. Veblen, K. William Kapp or Gunnar Myrdal, as examples of how systemism is already practiced implicitly by social scientists (Bunge 1999: 92–93, Bunge 2012: 30). This is because central elements of the works of these EIE scholars, such as a focus on relations, social structures, the embeddedness of economic processes within a social and ecological environment, or the commitment to realist (as opposed to instrumentalist) explanations, resonate with or even correspond to defining elements of systemism. Thus, our main claim in this chapter is not that systemism is something entirely new for EIE. Rather, we argue that it has long been an implicit element of EIE theorising, and that future research would benefit from making the systemist nature of EIE more explicit – also because it allows for building bridges to other social sciences and natural sciences.

Note that systemism is neither a theory nor a research program in itself. Rather, it is a philosophical framework consisting of a set of ontological and epistemological claims about reality and its investigation. As such, it is well suited to grounding a research program such as EIE, thereby helping to facilitate the internal consistency of the various EIE contributions, as well as facilitating the external communication and potential triangulation with other heterodox research programs under a common pluralist meta-paradigm (Dobusch & Kapeller 2012; see Section 4).

## 2. The ontological dimension of systemism

At its core is the ontological claim that everything that exists is either a system, a part of a system, or both (Bunge 1996). By a system, Bunge means “a complex object, every part or component of which is connected with other parts of the same object in such a manner that the whole possesses some features that its components lack — that is, emergent properties” (Bunge 1996, 20). The idea of systems is is very general (Bunge 2004): it includes natural systems (such as atoms, in which case the relations are material), conceptual systems (such as theories, in which case the relations are

logical), or social systems (such as families, in which case the relations take the form of social structures). All systems have four central components: first, the individual elements that constitute the system (its “composition”); second, the set of relations between these elements (its relational “structure”); third, the setting in which the system is embedded (its “environment”); fourth, the “mechanisms” that operate within the system (Bunge 2004).

In contrast to classical ontologies, such as individualism or holism, Bunge’s systemism does not prioritise lower or higher ontological levels neither ontologically nor epistemologically. Rather, according to systemism, reality consists of several ontological levels that are connected in the sense that either one system is the super- or sub-system of another (i.e. it is part of the constituents of the higher-level system) or the systems affect each other through ‘bridging mechanisms’ that could go bottom-up or top-down. Thus, systemism presents itself as a more balanced, intermediate approach between the extreme of a radical individualism or or holism (Bunge 2000), thereby avoiding the often fraudulent commitments of both of these approaches. This is an approach that is very close to EIE concepts, like Herbert Simon’s (1962) elaborations on the hierarchy of complex systems, where he explains how the relevance of evolutionary mechanism makes hierarchical multi-level structures particularly likely to emerge in the context of social systems, or Gunnar Myrdal’s (1974) Elaborations on economic development as a process of circular cumulative causation, where societal developmental ist understood as the result of the complex interaction of its main constitutive and functional systems.

In particular, it avoids typical “compositional fallacies” (Gräbner & Kapeller 2017) that pervade much of mainstream economics and, thus, also avoids corresponding ethical biases. For example, the individualism inherent in the mainstream economic approach, makes it much more difficult to see and account for structural problems, like discrimination, exploitation or domination, which are more readily appeared when starting from a systemist viewpoint in which relations play an essential role (Kvangraven & Kesar 2023). This example provides us with is a neat transition to the second pillar of systemism, its epistemology.

### **3. The epistemological dimension of systemism**

The epistemological dimension of systemism informs scholars about the appropriate ways through which knowledge about systems can be delineated. A first, direct implication of the ontological claims introduced above is that any systemist description of a real system should list its essential properties in the four dimensions mentioned above. Bunge (2004) uses the term CESM-model for such descriptions, since they must be explicit with respect to the investigated system in terms of its constituents C, its environment E, its (relational) structure S and its essential mechanisms M. This way, the CESM model delivers a useful blueprint that researchers can use to be explicit about their central object of investigation and, thereby, to facilitate the alignment of their own research with that of their peers.

A second central element of the epistemology of systemism, which resonates well with central tenets of EIE follows from the fourth element of the CESM model: its commitment to mechanism-based explanations. For Bunge, any viable explanation of a given phenomenon must refer to the mechanisms that brought about this phenomenon. This is largely equivalent to the proposals of evolutionary economists who defend the Darwinian ideal of explaining a phenomenon by explicating the sequence of causes that have led to it – an ideal famously cherished by Veblen for an evolutionary social science (e.g. Veblen 1898), and still considered an essential element of EIE (e.g., Witt 2014, Hodgson 2004). This commitment in both EIE and Bunge's systemism also not only serves as a powerful fend against the erroneous prescriptions of instrumental, teleological or equilibrium-centred explanations, but also calls for a meticulous search for ever more detailed explications of the mechanisms underlying the dynamics one observes in real world systems, leading not necessarily to simpler, but certainly to “deeper” explanations (Bunge 1997, Gräbner 2017).

The commitment to mechanism-based explanations points to three guiding principles or heuristics that can be considered useful for future work in EIE: First, the search for context-sensitive mechanism-based explanations is consistent with recent calls to decolonize the practices of social science research. A central element of colonial practices in the social sciences, but especially in economics, is their commitment to finding universal and objective truths (in the sense of the Cartesian spectator). In this way, they have universalised a particular Western mode of living as a universal role model to be followed by all the ‘developing countries’ in the Global South (Kvangraven & Kesar 2023). The idea of “Global Standard Institutions”, a set of liberal market-oriented institutions to be adopted by all countries seeking to improve the well-being of their citizens reflects this conviction (Chang 2010). At the heart of this questionable endeavour is the idea of time- and space-independent social laws. The – justified – criticism of such universalism, however, runs the risk of falling into the trap of Dr. Seuss-like explanations, i.e. of giving up on the idea of any generalisable findings in the social sciences. But generalising is not the same as universalising (Go 2016, 182): the practice of taking a mechanism that has been identified to be relevant in a Western country and scrutinising – rather than assuming – whether it is also relevant in a Southern country (i.e. whether it appears in the systems that exist there) can help EIE scholars to generalise in the right way, while at the same time provincializing mechanisms that were erroneously believed to be universal.

Second, the commitment to mechanism-based explanations facilitates the delineation of transformative strategies. Coming up with policies or other receipts for change has always been an important part of the critical research program of EIE. To come up with receipts for change requires, however, knowledge about mechanisms (Grüne-Yanoff 2015) to provide a solid basis for reliable predictions. Without knowledge about mechanisms, the implications of behavioral or institutional changes are difficult to assess, especially if their effects might unfold in a cumulative fashion.

Finally, it follows from its ontological vantage point that systemism does not a priori favour bottom-up (‘individualist’) or top-down (‘holist’) explanations. This rejection was also central to the writings of Thorstein Veblen (Hodgson 2004: 176). In contrast, Veblen has inspired the evolutionary-

institutional practice of taking into consideration both top-down and bottom-up effects in explaining social phenomena (Hodgson 2004, Witt 2014, Gräbner 2016). It is this potentially simultaneous relevance of both top-down and bottom-up effects, often linked in a cumulative way that gives rise to “reconstitutive downward effects” (Hodgson 2004, 184ff), and, thereby, persistent and path dependent developments that defy equilibrium-based theorising (see also the entry on path dependence and, for the case of heterodox economics more generally, Gräbner & Kapeller 2017).

#### **4. Systemism, evolutionary-institutional economics, and pluralism**

The previous two sections have shown that systemism is consistent with much of the research practice of EIE in the past, and provides a philosophical framework that summarizes central ontological and epistemological commitments of EIE in a consistent way. But for some this may raise the question: why should we bother with a philosophical framework such as systemism at all? In this section we would like to explore the benefits that EIE would gain from using systemism more explicitly in its research. There are two types of benefits: internally induced and externally induced.

By internally-induced benefits we refer to benefits that manifest themselves for the research program of EIE itself. Here, a main benefit of a philosophical meta-framework is to summarise key assumptions and commitments of a research program to provide instructive, overarching accounts and allow for situating individual contributions in a shared conceptual framework. In addition, such a foundation facilitates the constructive, but preserving development of EIE: being explicit about the ontological and epistemological pillars of EIE allows for a save methodological development of EIE, i.e. a serious discussion to what extent new methods could be helpful to advance institutional analysis or whether they are at odds with the fundamentals of such analysis. The use of formal models is a useful example. Especially earlier EIE scholars were very reluctant to accept the use of formal models for institutionalist research (e.g., Kapp 1961; Myrdal 1968). This was mainly because in their time the majority of formal models were analytical general equilibrium models, which were limited in their ability to support institutionalist analysis. However, recent decades have witnessed the development of new types of models, some of which are very different to neoclassical equilibrium models. By making explicit the meta-theoretical core of EIE, it is easier to assess the potential of these models for institutionalist research and, when used, to embed them appropriately within an evolutionary framework. In this way, developments in the area of game theory (Elsner 2012), evolutionary dynamics (Heinrich 2017), agent-based modelling (Gräbner 2016), or scientometrics (Kapeller & Steinerberger 2016) could be integrated into the institutionalist toolbox in a constructive way, that is in a way where the formal models are not an end in themselves but a useful tool to advance institutionalist thought.

Externally-induced benefits arise because the explicit use of systemism as a meta-theoretical framework can facilitate the communication between EIE researchers and scholars associated with other traditions and disciplines, thereby potentially enabling the constructive triangulation of research across paradigmatic and disciplinary boundaries. A lack of meta-theoretical explicitness is

often a fundamental barrier to collaboration across such cleavages, and the use of explicit philosophical frameworks can address this challenge (Gräbner & Strunk 2022). The intricate connections between EIE and complexity economics, that is build on an idea analogous to systemism, namely to envisage socio-economic provisioning systems as 'complex adaptive systems' (Elsner 2017, Gräbner & Kapeller 2015), can serve as a prime illustrative example in this context. This way, the use of systemism can help to practice and sustain a heterodox pluralist meta-paradigm as suggested by Dobusch & Kapeller (2012).

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UNIVERSITÄT  
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**Institute for Socio-Economics**  
University of Duisburg-Essen

Lotharstr. 65  
47057 Duisburg  
Germany

[uni-due.de/soziooekonomie](http://uni-due.de/soziooekonomie)  
[wp.ifso@uni-due.de](mailto:wp.ifso@uni-due.de)



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