



Analysis

Utopias and realism in ecological economics – Knowledge, understanding and improvisation

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ABSTRACT

“What we are going through at the present time is not just an economic-financial crisis, but a crisis of humanity” (Max-Neef, 2010, p. 200). Despite problems within it, it is ecological economics which is now emerging as the most potent opponent to neo-classical economics. “It is ecological economics which addresses the most profound failure of neoclassical economics, the failure to deal adequately with resource depletion and environmental destruction both locally and globally” (Costanca, 1991). The complex challenges are anchored in a deep conflict between mainstream economics and the natural and social conditions, to harmonize this connection it would seem necessary to develop a valid understanding of the interconnectedness between economy, nature and society. The idea behind this article is four-fold. Firstly, we describe and discuss the ontological worldview in ecological economics. Secondly, the epistemological consequences of the ontological preconditions are discussed. Thirdly, some of the main concepts and principles in ecological economics are focused on. Fourthly, we discuss the realism of radical solutions in ecological economics.

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1. Introduction

To improvise, artists need knowledge of fundamental structures in music, painting or literature. In addition, to create great art it is necessary to have a holistic understanding of the context. Following the same line of argumentation we claim that ecological economists need to possess knowledge about fundamental principles, understanding of the context and improvisation skills in order to solve the challenging problems we are facing today. According to Max-Neef; “What we are going through at the present time is not just an economic-financial crisis, but a crisis of humanity” (Max-Neef, 2010, p. 200). The dominant economic model, based upon mono-disciplinarity, abstraction, reductionism, and causality, is not suitable whether this be for understanding the interconnectedness of the problems, or implementing appropriate solutions.

Costanca argues that “despite problems within it, it is ecological economics which is now emerging as the most potent opponent to neo-classical economics. It is ecological economics which addresses the most profound failure of neoclassical economics, the failure to deal adequately with resource depletion and environmental destruction both locally and globally” (Costanca, 1991). But, we agree with Røpke when she argues that ecological economics still suffers from a weak identity (Røpke, 2005, p. 286). To develop the identity of ecological

economics it is necessary to strengthen the reputational autonomy of ecological economics. To do this we have to revitalize the discussion concerning the ontology and the epistemology.

The complex challenges are anchored in a deep conflict between mainstream economics and the natural and social conditions, to harmonize this connection it would seem necessary to develop a valid understanding of the interconnectedness between economy, nature and society. The idea behind this article is four-fold. Firstly, we describe and discuss the ontological worldview in ecological economics. Secondly, the epistemological consequences of the ontological preconditions are discussed. Thirdly, some of the main concepts and principles in ecological economics are focused on. Fourthly, we discuss the realism of radical solutions in ecological economics.

The most fundamental demarcation line between ecological economics and neo-classical economics is at the ontological level. Ecological economics is based on an organic worldview whereas neoclassical economics is anchored in a mechanic worldview. The consequence is that ecological economics cannot be understood, at the epistemological level, using a mono-scientific perspective. To understand the connection between economy, nature and society we need a transdisciplinary science. In addition, to find practical solutions that work, ecological economists must have improvising skills based on knowledge of the fundamental principles in ecological economics together with a transdisciplinary understanding of the economical, natural, and social context. We use Gidden's concept “utopian realism” to illustrate how solutions that seem utopian from a neo-classical perspective may well be realistic from an ecological economical perspective.

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2. An Ontological Worldview in Ecological Economics

To discover and articulate the fundamental principles in ecological economics we have to develop a scientific platform enabling us to discover what is invisible from the angle of the dominant neo-classical economic paradigm. To do this, it is necessary to distinguish between ontology, the philosophical study of being, and epistemology, the philosophical study of knowledge. It is not possible to reduce being to knowledge of being. “Ontology is always in principle distinct from epistemology, even where our knowledge of the known world is unquestioned” (Bhaskar et al., 2010, p. 2).

According to Capra (1982) a mechanic worldview presupposes that physical matter is identical with reality. “The material universe, including the living organisms, (...) was a machine that could be understood completely by analyzing it in terms of its smallest parts” (Capra, 1995, p. 21). Everything could (at least in principle) be explained in terms of imposed physical laws. The social sciences, including neo-classical economics are characterized by the idea that bits of matter are isolated individuals (atomism), related to one another purely externally (causality). Interpreted from a mechanistic worldview the market is nothing more than a mere mechanism based on the interplay between egocentric individuals governed by market mechanisms and competitive power. All that happened; “had a defined cause and gave rise to a definite effect” (Capra, 1995, p. 120).

This means that mechanical explanations describe every biological or social event as a pattern of non-biological occurrences. The future of any part of the system may – in principle – be predicted with absolute certainty if its state at any time is known in detail. In other words, mechanism is a worldview claiming that physical matter is reality, complete and total. Everything in the universe can be explained in terms of imposed physical laws. Accepting that the whole universe is completely causal and deterministic has serious consequences with regard to the opportunities for human creativity, freedom and self-realization. Interpreted from a mechanistic worldview a consequence of this line of argumentation is that ‘dead’ nature can provide no reasons, and it aims at nothing.

The mechanical worldview is useful for the description of, and appropriate for dealing with delimited physical phenomena we encounter in our daily environment. However, we must be aware of the problems connected to using abstractions based on the limited worldview of mechanism. According to Whitehead’s “fallacy of misplaced concreteness” we tend to forget that the mechanic worldview is an abstraction, and even worse, we tend to mistake the abstraction for the concrete actuality. When emotions and values are missing, we lose the connectedness between economy and living nature and society.

Whitehead’s philosophy of organism confronts the established mechanic worldview. He criticized the mechanic worldview by referring to the separation between “body” and “mind”. Dualism is deeply rooted in European philosophy from the beginning of the seventeenth century. Whitehead argued that the separation between body and mind still characterizes most sciences in the modern world; “The notion of the mechanical explanation of all the processes of nature hardened into a dogma of science” (Whitehead, 1967a, p. 60) during the 20th century.

Capra (1982) characterizes the organic worldview by nonlinear interconnectedness of living entities. This means that individual and community make each other and require each other at the same time. Daly and Cobb Jr. argues that; “a group or community cannot be understood if the unit of analysis is the individual taken by himself. A society is clearly something greater than the sum of its parts” (Daly and Cobb, 1994, p. 7). Nature and society are self-sustaining and have their own reason. According to Whitehead “A society is more than a set of entities to which the same class-name applies. “The self-identity of a society is founded upon the self-identity of its defining characteristics and upon the mutual immanence of its occasions (...) and the creative advance into the future” (Whitehead, 1967b, p. 204).

Even if different authors focus on different aspects of the ontological worldview, we can conclude that the ontology of ecological economics must be built on an organic worldview based on a concept of nature and society as collective phenomena, not as the sum of atoms or individuals. Within this complex and dynamic framework individual behavior is both multi-faceted and context-dependent. Accepting the organic worldview as a frame of interpretation has far-reaching consequences for our understanding of the interplay between economy, nature and society.

As an example, we have to rethink the status of life. Whitehead is arguing that the term “life”, refers to the enjoyment of emotions like, “self-enjoyment”, “freedom”, “creativity”, “purpose”, and “subjectivity”, derived from the past and aimed at the future. This leads to a conclusion that “life” and “mind” are interwoven with matter. Nothing in nature can be what it is, except as an integrated part of a dynamic whole.

The Renaissance genius and painter Leonardo da Vinci explains the interconnectedness of mind and matter in the following way, “the human body was an outward and visible expression of the soul; it was shaped by its spirit” (Capra, 2007, p. 11). According to Capra, Leonardo clearly recognized that the anatomies of animals and humans involve mechanical functions. “Nature cannot give movement to animals without mechanical instruments” (Capra, 2007, p. 11). In contrast to a mechanical interpretation Leonardo was convinced that even if the means of the body’s movements were mechanical, its origin was the soul. In a generalized way this means that the nature of all living creatures was spiritual, not mechanical. Interpreted in the context of ecological economics, this means that even if the context of interpretation is organic, we must focus on mechanical phenomena as well, for example as means of production, distribution, consumption and redistribution (reprocessing of waste).

3. Epistemological Consequences of the Organic Worldview

Costanca defines ecological economics as a “transdisciplinary field of study that addresses the relationships between ecosystems and economic systems in the broadest sense” (Costanca, 1991, p. 3). Transdisciplinarity postulates that organic, integrated, dynamic reality cannot be understood using the perspective of specific individual disciplines. To grasp the complexity of reality, cooperation between different disciplines is of great importance. Max-Neef distinguishes between weak and strong transdisciplinarity. On the one hand, weak transdisciplinarity refers to inter-scientific dialog, strong transdisciplinarity, on the other hand, refers to “a new discipline (...) a different manner of seeing the world, more systemic and more holistic” (Max-Neef, 2005, p. 15). Strong transdisciplinarity can be seen as an extension of interdisciplinarity because it involves both “inner-scientific cooperation between various disciplines and fields as well as cooperation between science and society” (Jahn et al., 2012, p. 2). Following this line of argumentation we agree with Spash’s conclusion “that ecological economics as a radical movement is required today, more than ever, in order to criticise and change the social organisations and institutions that spread false beliefs about economic, social and environmental reality” (Spash, 2012, p. 46). Accordingly ecological economics needs strong transdisciplinarity.

To illustrate the epistemological consequences of an organic worldview we focus on how wealth is measured in economics. From the neo-classical perspective wealth, measured as GDP per capita, is seen as a good indication of a country’s standard of living. However, an increase in GDP alone is not enough to measure wealth. One must see GDP in relation to the magnitude of the population. Therefore GDP per capita is seen as a better indication of wealth. An increase in GDP per capita – growth – is therefore considered very important in most countries. Several models have been used to explaining growth – from simple neoclassical models, purely considering real capital to more advanced models also seeing human capital (education etc.) and technological, management and organizational improvement (innovation)

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