

## The Vienna school of ecological economics

*Routledge Handbook of Ecological Economics: Nature and Society.*

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### Introduction

Founded roughly 30 years ago, the transdisciplinary field of ecological economics is today slowly coming of age, making the publication of this forward-looking edited collection a timely contribution. Its content speaks to contemporary scientific and political discourses concerning the future of the planet earth and the place of human societies within that future. It provides an economics oriented reader with an overview of the basic concepts and issues addressed in this diverse field. Comprised of 50 short chapters, each providing a concise summary of a specific topic, the *Routledge Handbook of Ecological Economics: Nature and Society* is a good, if in places puzzling, general introduction to the social science and humanities strands of the field. Its broad scope and consistent focus on the future reflect a maturing of the field. The collection, which presents ecological economics as an alternative to neoclassical economics, is a complement to the range of more general and more conventional textbooks and handbooks already available and can serve as a helpful reference tool for teaching, theory and applied research. It is, above all, an excellent guide for those looking to move beyond conventional neoclassical economics approaches to environmental questions. Although perhaps a minor concern for the present readership, the inclusion of only one strictly ecology based contribution (out of 50 chapters), serves as a brusque reminder that there remains much work to be done before ecological economists are able to construct the epistemologically complex representations and visions of ecological economic dynamics envisioned by the discourse's founders.

The editor has brought together an impressive list of contributors, including early ecological economists like Richard Norgaard and Joan Martínez-Alier and the journal's current editor, Richard Howarth, and there are a number of outstanding, brief and coherent summaries of key ecological economics topics to be found in these pages. Heterodox economics enjoys a privileged position, with roughly half the chapters approaching the topic from one or a combination of heterodox economics perspective(s). These include among others, reliance on Marx, Commons and Veblen, Polanyi, Kapp and Keynes. The handbook also contains a broad range of complementary contributions approaching the theme through mixtures of political ecology, philosophy, social theory and ecological economics methodology. The scope is admirable, ranging from institutional economics (Ch.3, Vatn) and ecofeminism (Ch.5, Salleh) to the place of thermodynamics theory in ecological economics epistemology (Ch.9, Mayumi), the moral duty of present to future generations (Ch.25, Howarth) and the role of lifestyle in the perpetuation of ecologically destructive social and economic practices (Ch.15, Brand and Wissen). Readers interested in learning more about ecological economics methodology will find a helpful overview of the workings and challenges of a number of key methodologies employed in the field, including social multi-criteria analysis (Ch. 30, Greco and Munda), Q-Methodolgy (Ch.32, Davies) and participatory modelling (Ch.35,

Videira et al.). Those interested in learning which theories, epistemologies and ontologies guide the thinking of some of today's leading ecological economists will find much here to occupy their attention. However, teachers and students looking for a comprehensive overview of the composition and cadres of the contemporary field of ecological economics should bear in mind that this collection presents not all but rather one among various narratives advanced within the transdiscipline.

The contributions are situated within a coherent overall structure, with the book divided into ten narratively progressive sections, each consisting of a number of ten-page chapters covering the following ten thematic areas: Foundations (2 chapters); Heterodox thought on the environment (6 chapters); Biophysical reality and its implications (5 chapters); Society, power and politics (4 chapters); Markets, production and consumption (4 chapters); Value and ethics (4 chapters); Science and society: uncertainty and precaution (3 chapters); Methods (9 chapters); Policy challenges (6 chapters); and Future post-growth society (7 chapters).

The position advanced in this collection, with conviction and often with outstanding academic rigor, is that dogmatic adherence to the ideal of economic growth, among scholars, practitioners, politicians and publics, is a driving force behind the countless socio-ecological tragedies that have characterised the close of the 20<sup>th</sup> and start of the 21<sup>st</sup> Centuries. This is a central tenant of the ecological economics discourse, which problematizes the relationship between material and energetic throughput in the human economy and material and energetic throughput in the ecological contexts within which human economies are inevitably embedded. Each chapter offers not only critiques that underpin this position but also constructive recommendations for how future research and collective action might help humanity to find a way forward that respects it.

Chapters are often cross-referenced by the contributing authors and there is a good deal of conceptual overlap between them, giving the collection a definite tone and steady narrative flow. Chapters also adhere to a standard format, making comparisons and combination of insights straightforward: first there is a general introduction to the chapter topic and to the author's position concerning its pertinence to the field of ecological economics; next is a review of key related debates, subjects, objects and approaches; this is then followed by a section on future directions, in which authors express their opinions about how work on the chapter's topic should be developed going forward within ecological economics; each chapter then finishes with concluding remarks and a brief list of key further readings. The standardized structure of the collection, combined with the brevity of each chapter and an excellent index, make it easy to consult and gives a definite handbook feel. However, a handbook, i.e. a text that gives clear and explicit instructions on how to apply codified procedures associated with a body of uncontested facts, it is not. Rather, this is a work of advocacy, worthy of admiration on those grounds, and certainly well worth consulting but nonetheless, a work of advocacy.

### **Advocacy, realism and issues of normativity**

In the Preface, in Chapter 1 and through the inclusion of a number of contributors not typically associated with the core ecological economics discourse, Spash has constructed a case in favour of a particular approach to the field of ecological economics. The general thrust of this case, reflected in the collection's two closing sections, 'Policy challenges' and 'Future post-growth society,' is to lay out a suite of analytical and methodological foundations for

interpreting ecological economics as a post-growth / degrowth alternative to conventional, mainstream, neoclassical economics. That case is based mainly in contemporary heterodox economics theory and is framed at the start of the collection, and in several chapters, through reference to Bhaskar's Critical Realism. It adopts a standpoint that is not universally accepted among ecological economists, nor, in my view, entirely compatible with the original aims and contemporary challenges of the transdiscipline. This is a subtle point, and so I wish to be clear. Taken as a contribution toward the necessarily complex, non-reductive, sometimes dishevelled community of propositions and approaches that comprise the transdiscipline of ecological economics, the position advanced in this collection addresses a core project: developing concrete alternatives to a continued reliance on proxy monetary-value based representations of the economic contribution of ecological phenomena (Farrell, 2009[2005]; 2007; Farrell and Silva-Macher, 2017). However, it would be inappropriate, in my view, to consider it the definitive word on the topic.

Similarly, with respect to the ecological aspect of ecological economics, among fifty contributions, only five directly address biophysical dynamics, while, among these, content is related mainly to economics and epistemology. In the only contribution approaching the topic squarely from an ecology perspective (C.12, Devictor), the author presents a well-established critique of reductionist, or equilibrium, ecology theory and highlights ways in which reductionist ecology and reductionist economics reinforce one and other. He fails, however, to take into account the importance of far-from-equilibrium thermodynamics in the work of many ecological economics scholars, not least among them the ground breaking socio-ecologist C.S. Holling and the founder of the bioeconomics discourse, Nicholas Georgescu-Roegen. A closer look at Devictor's chapter, "The Biophysical Realities of Ecosystems," both in terms of its content and in terms of Spash's decision to include it in this collection, raises two issues that I believe to be of great importance to the field of ecological economics:

- 1) to what extent does contemporary academic work concerning environmental issues continue to be biased by a euro-descendent colonialist cosmology of conquest and control that dismisses the collaborative humans-within-nature perspective of first nations in favour of the confrontational humans-against-nature perspective that underlies the European projects of industrialisation and Enlightenment?
- 2) on what basis is it possible to ensure epistemological rigor in the production of epistemologically complex, inter- and transdisciplinary work concerned with the state and future of the planet earth and the place of humans in them?

With regard to the first point, Devictor presumes, in his chapter, as does Spash in his, and as do many other, although not all, of the contributors to this collection, the existence of something they refer to as 'Nature', which is presumed to exist beyond the reach of human understanding and is fixed and immutable in its reality. This is a Platonic presumption, repeated in the work of Aristotle and later confronted, in the context of social science, by Weber. It implies not only that there are right and wrong ways to make sense of the ecological economic *Gestalt* (Farrell and Silva Macher, 2017) with which I am in full agreement, but also that the monistic euro-descendent epistemology that presumes an *a priori* distinction between real and not-real, is universally applicable.

Leaving aside the question of whether or not other epistemologies are convincing, their exclusion from consideration, in place of dogmatic adherence to the primacy of this Platonic presumption leaves ecological economics hollow. In place of responsible recognition of the normative implications of actively engaging the hermeneutically complex challenge of

supporting contemporary humanity in reshaping a globalised life-world, we are left with normativity masquerading as objectivity. The impossibility of achieving such objectivity is, in contrast, a central epistemological proposition of the complexity theory that informed the work of almost all proto-ecological economists (Prigogine, 1997; Cilliers, 2005).

With regard to the second point, concerning epistemological rigor – and I understand the two to be related – since methodologies operationalise and inform theory, closing down methodological options also implies closing down theory options. In Devictor's chapter, the far-from-equilibrium thermodynamics assumptions of dynamic indeterminacy in the works of Georgescu-Roegen, Boulding and Holling are left aside, along with the epistemological indeterminacy that they imply. Interestingly, it is precisely these epistemological implications of far-from-equilibrium thermodynamics assumptions, disregarded by Devictor, that occupy Mayumi's (Ch.9) attentions in what is a genuinely ground breaking intervention and an absolute must read. This heterogeneity of contributions can be understood as a symptom of the interdisciplinary context of ecological economics, where there is a constant risk that the quality of crossover contributions will be accepted uncritically, as would appear to have been the case with Devictor's chapter, when editors and team members are confronted with interventions that reference discourses with which they are not familiar. Methodological pluralism and epistemological openness can help to mitigate this by creating an intellectual climate that invites and facilitates participation of experts from a wide range of disciplines, increasing the likelihood that a team has recourse to reviewers sufficiently familiar with the discipline in question, be it anthropology or biochemistry, to mount competent critiques of discipline specific interventions.

### **Handbooks, context and the purpose of Ecological Economics: the importance of standpoints**

In fairness to Spash, the idea of a 'handbook of ecological economics' is perhaps itself an oxymoron, as the epistemological foundations of the field, rooted in the rise of modern complexity theory during and after the Second World War, militate against the type of codifying one would expect from a handbook. This peculiarity of the field, and of this collection, provides an opportunity to reflect both on the place of normativity in ecological economics – a topic directly addressed in several of its contributions, and on the ethical, epistemological and methodological challenges associated with making that normativity transparent – a topic that figures in only a handful of them. In recent years, ecological economics, first established at the close of the 1980s as an upstart transdiscipline running against the grain, has become increasingly accepted as a key intellectual space for working through the questions of what is sustainability and how might it be realised (Faber, 2008). This has brought newcomers to the discourse whose positions are not tightly bound to its origins and there has arisen, within the journal *Ecological Economics*, a debate regarding the discourse's purpose (Nadeau, 2015). The editor of this collection has been actively engaged in this debate (Spash, 2012; 2013): is it a sub-field of economics? A proto-discipline requiring refinement? A broad-church transdiscipline encompassing ecology, economics and a range of other disciplines, which should remain methodologically agnostic? A social movement? something else altogether? While these are questions that can only be answered by contemporary ecological economists, it behoves a thoughtful scholar to reflect upon the views of those who have opened the path along which one is travelling.

Notwithstanding their inevitable flaws, laid bare over time, looking back to the critical works of early, proto-ecological economists from the 1960s and '70s, such as Kenneth Boulding, Nicholas Georgescu-Roegen, Howard T. Odum and Donella Meadows, two consistent themes can be discerned:

- 1) there is an epistemological imperative to include attention to *both* economic *and* ecological phenomena in the construction of non-reductive, complex representations of ecological economic dynamics
- 2) choosing to do so reflects not only a scientific but also a normative, ethical position.

The question as to how point 1) might be addressed was taken up as a central matter of concern in the first issue of the journal *Ecological Economics*, in 1989, where, in keeping with point 2), two countervailing, explicitly normative arguments, endorsing alternative strategies were openly discussed. Costanza (1989) argued in favour of developing transdisciplinary synthesizing methodologies that combine ecological and economic analyses in new and productive ways, while Norgaard (1989) argued in favour of what he called 'methodological pluralism,' warning against shutting down debate and closing off avenues of enquiry in an effort to achieve the appearance of formalism in the study of a profoundly complex subject.<sup>1</sup>

Spash, the editor of this collection, is an outspoken advocate of formalising and standardizing the field's methodology using Critical Realism as a structuring frame. While it may appear pedantic, I would argue that maintaining both synthesis and pluralism squarely on ecological economics' methodological agenda is not a question of style but of epistemology: is there one correct way to conceptualise and envision the dynamic relationship between ecological and economic processes? This is what Farrell and Silva-Macher (2017) call the ecological economic *Gestalt*. Given that normative reflection upon the constitution of the human/environment relation is a basic feature of the human condition, does the topic's inherent, irrevocable epistemological indeterminacy oblige the ecological economist to tolerate a degree of intellectual diversity and an underdetermined ontology that resists resolved formalisation?

Arguably, advocacy of a unitary formalisation of the ecological economic approach, even one as ostensibly loose as Bhaskar's Critical Realism, reflects a standpoint built up from within the Euro-descendent culture of the Scientific Method, Logical Positivism and Analytical Philosophy, where there is one real world and the task of science is to discover it. Advocacy of a less closed position, where the Euro-descendent approach to making sense of humans' place in the world can be complemented by post-modern and non-modern epistemologies is about 'staying with the trouble,' as Haraway (2016) puts it. It is a standpoint favoured by myself and many other ecological economists, including some of the contributors to this collection, as far as I can discern. It is a standpoint that, in keeping with the general tone of this collection, sees an alternative to the European model of development (Acosta, 2013). That is, one that rejects the hegemonic Euro-descendent monetarist economy model that equates Gross Domestic Product with human wellbeing; one that rejects the idea that there is a single path of human progress – from hunter gather, to herder, to farmer, to industrialist, to post-industrialist – embracing, instead, the idea of a "pluriverse, [which] signals struggles for bringing about, worlds and knowledges otherwise – this is, worlds and knowledges constructed on the basis of different ontological commitments, epistemic configurations, and practices of being, knowing and doing" (Escobar, 2012[1995]: xxviii).

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<sup>1</sup> For an economics oriented review of these origins, see Nadeau, 2015.

Without wishing to suggest that this collection's Euro-descendent bias is intentional, its presence, like the dearth of ecology contributions, highlights the insidiousness with which European ideations of progress and nature continue to limit the thinking of scholars and activists in both the minority (cash rich) and majority (cash poor) worlds. By defining ecological economics as a means for upending the neoclassical economics paradigm, and for refuting the associated politics that takes economic growth as an end desirable in itself, this collection paints itself into a corner. Its identity is determined through reference to that which it is not, and in this way still intimately bound to that definitional context. For example, the language of many of the collection's contributions reflects a general developmentalist (Escobar, 2012[1995]) bias: e.g., in Chapter 15, where Zaman refers to 'pre-market societies' as a stage in the process of human social development, implying that contemporary human societies where barter, reciprocity and gifting continue to define socio-economic relations are somehow developmentally retarded.

In addition to this linguistic and narrative bias, the composition of authors also reflects an extreme bias, based in Europe or the Euro-descendent world (80 % of all authors, 95% if the USA is included), with almost half of all the first authors (48%) coming from either Austria, the United Kingdom or the United States (listed in order of predominance). Were this collection entitled, in a geographical sense, *The New Austrian School of Ecological Economics*, the presence of such strong bias would be less disconcerting. However, these Euro-descendent and Austrian institutional biases are not immediately obvious, as the author list includes neither the institutional affiliations nor the personal biographies of the contributors. I looked many of them up in order to prepare this review.

Furthermore, in spite of a rich epistemological and methodological diversity reflected in its overall composition, the collection begins with a section entitled Foundations, consisting of two highly normative, epistemologically closed interventions. The first, from the editor, argues that there is a pressing need to formalise the methodological foundations of the field of ecological economics, which he explicitly casts as an alternative to neo-classical economics, situated within a Marxian analytical tradition. The second is a sparsely referenced harangue against the methodological paucity of contemporary ecological economics written by two authors without reputation in the field, arguing that it lacks impact because it is unstructured and that Bhaskar's Critical Realism should be adopted as the overarching approach, in order to correct that failure. Their utter disregard for the innumerable ecological economics texts addressing questions of methodology over the past thirty years, and for the contemporary renaissance in that dialogue currently underway in the journal *Ecological Economics* is, frankly, embarrassing. Notwithstanding their location, in the section of the book labelled 'Foundations,' these chapters provide the reader, not so much with information regarding the foundations of the ecological economics discourse, as with argumentation advocating that Critical Realism should be adopted as the epistemological foundation for contemporary ecological economics.<sup>2</sup>

## Conclusion

Looking to the future, and on this I am in full agreement with Spash and commend him and his contributors for engaging with that challenge, the bias reflected in his selection of

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<sup>2</sup> For a guide to the foundations of the discourse, readers are encouraged to consult the 1991 collection *Ecological Economics: the science and management of sustainability*, edited by Robert Costanza and the book *Ecological Economics: Energy, Environment, and Society* published by Juan Martinez-Alier, with Klaus Schlupmann, in 1987.

contributors provides a wonderful backdrop for opening up discussion regarding the epistemological and methodological consequences of a latent Euro-descendent bias that continues to persist within ecological economics. There are many academically outstanding interventions brought together in this collection, which will provide the critical experienced ecological economist with much food for thought, and the ecological economics novice with a helpful introduction to an important strand of the wider discourse, one we might refer to, perhaps, in keeping with tradition, as the Vienna School of Ecological Economics.

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