



Contents lists available at ScienceDirect

## Ecological Economics

journal homepage: [www.elsevier.com/locate/ecocon](http://www.elsevier.com/locate/ecocon)

## COMMENTARY

Ecological Economists: The *Good*, The *Bad*, And The *Ugly*?Harold Levrel<sup>a,\*</sup>, Vincent Martinet<sup>b</sup><sup>a</sup> Université Paris-Saclay, AgroParisTech, CNRS, Ecole des Ponts ParisTech, CIRAD, EHESS, UMR CIREN, 94130, Nogent-sur-Marne, France<sup>b</sup> Université Paris-Saclay, INRAE, AgroParisTech, Economie Publique, 78850 Thiverval-Grignon, France

## A B S T R A C T

Clive Spash proposes a classification of ecological economists in three camps, “social ecological economists” (SEE), “new resource economists” (NRE), and “new environmental pragmatists” (NEP). Even if this classification describes the communities of the field and their main scientific strategies with an intuitive perspective, we have three concerns with it. First, this classification is more a normative view of what Spash thinks ecological economics should be rather than a positive description of the field; SEE are presented as the “good” ecological economists, whereas NRE are depicted as “bad” neoclassical economists, and NEP as “ugly” environmentalists ready to use economic tools and concepts to serve ecological conservation purpose. Next, it seems to us that the classification is not based on a clear epistemic criterion, leading to blind spots and double belongings, especially for transdisciplinary works, concepts, and models. It also underestimates the role of the scientific ecology in the field. Finally, it appears to us that this description of what should be a genuine ecological economist leads to delegitimize methodological and conceptual pluralism in the field and the journal *Ecological Economics*.

## 1. Introduction

Ecological economics is a complex scientific movement, crossing different disciplines, ideas and assumptions, with roots in both recent and ancient histories of thought (Martinez-Alier, 1987; Spash, 1999; Røpke, 2004, 2005; Franco, 2018). Since the early institutional origins at the turn of the 1990s, attempts to classify ecological economists have been a regular occurrence (e.g., Costanza, 1989). In the 2010s, a new classification has been proposed by Clive Spash (Spash, 2009, 2011, 2012a, 2013; Spash and Ryan, 2012). This classification distinguishes three “Camps” of ecological economists: “social ecological economists,” “new resource economists,” and “new environmental pragmatists.” This classification is particularly successful, with 414 citations in google scholar<sup>1</sup> for the 5 papers mentioned above.

The New Environmental Pragmatists (NEP) were first mentioned in a paper entitled “New environmental pragmatists, pluralism and sustainability,” published in 2009 in *Environmental Values*. Adopting a new environmental pragmatism “means communicating environmental concerns by adopting the dominant form of power discourse in society, which is commonly perceived to be money” (Spash, 2009, p.253).

The New Resource Economists (NRE) were first mentioned in a paper entitled “Towards the integration of social, economic and ecological knowledge” (Spash, 2012a). They are defined very roughly: “New Resource Economists are those who basically accept most of the doctrines of mainstream neoclassical economics. They do not want any fundamental changes but are concerned that the formal models be

adjusted to take into account environmental issues such as ecosystem sustainability and resilience” (Spash, 2012a, p.20).

The Social Ecological Economists (SEE) were first mentioned in a paper entitled “Social ecological economics: Understanding the past to see the future,” published in 2011 in the *American Journal of Economics and Sociology*. To understand what SEE is, Spash distinguishes them from the neoclassical welfare economists as follows: “Social Ecological Economics is then envisaged as a community of scholars developing a distinct ideological vision and specific methodological agenda. Ideologically there is a commitment to: environmental problems requiring behavioral and systemic change, continued economic growth through material and energy consumption being unsustainable and politically divisive, poverty and distribution as major economic concerns, a need for balancing power (e.g., individual, group, government, corporate) at different spatial scales (from the local to international), a central role for ethical debate, envisioning markets as social constructs with numerous flaws, political economy, design of alternative institutions, public participation, empowerment and engagement as necessary to address the science-policy interface, recognizing the importance of ‘others’ (both human and non-human). Methodologically distinct characteristics include: value pluralism, acknowledging incommensurability, interdisciplinarity, empiricism using quantitative and qualitative methods, rejection of mechanistic reductionist approaches, rejection of mathematical formalism and its claimed rigour, acceptance of strong uncertainty (i.e., ignorance and social indeterminacy)” (Spash, 2011, p.366–367).

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Received 2 July 2019; Received in revised form 26 October 2019; Accepted 22 April 2020

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Spash stabilizes his classification in a paper with A. Ryan, entitled “Economic schools of thought on the environment: investigating unity and division,” published in 2012 in the *Cambridge Journal of Economics*.

Tracing borders between schools of thought always leads to discussion on the relevance of the categories and on their performative effect, producing exclusion or inclusion of scholars from various circles (journals, conferences, etc.). Each categorization has its advantages, like clarifying the debate, and drawbacks, for example over-simplifying reality. Spash's categories are no exception. Clearly, this classification helped to describe more precisely who belongs to this field of research, what kind of communities can be identified, and what are the main scientific strategies of these communities, with an intuitive perspective. It helps to start an important debate in the community of the ecological economists. However, we suspect that Spash's purpose is not to propose a classification to describe the field, but rather an attempt to identify who are the “genuine” ecological economists and who are the “free rider ecological economists.” To make our point, in this commentary, we personify the three Spash's camps through the famous characters of the classic Sergio Leone movie. We believe that the main goal of Spash's classification is to promote the idea that, among the community of the ecological economists, there is the *Good* social ecological economist, who is the only one able to carry out a paradigm shift, the *Bad* new resource economist, who does not reject mainstream economics, and the *Ugly* new environmental pragmatist, for whom the end justifies the means.

The classification is stimulating since it is based both on an historical view and on many common-sense criteria that can be easily understandable. But, even if we understand the rationale underlying this classification and consider that this is a good way to distinguish different categories of ecological economists, we have three main concerns with it. First, the positive and normative dimensions of the classification are not completely distinguished (or recognized) and the classification ends up defining who are the “true/genuine” ecological economists, while it could be expected that such a classification tells us what are the different ways of thinking/working in ecological economics. Second, the criteria used to distinguish the categories are not clear enough and question the epistemic foundation of this classification. Last, the proposed categorization appears to be a critics of the methodological pluralism, which jeopardizes its ambition to improve debates among researchers working in this field. We develop each of these three concerns in a section.

## 2. Behind Spash's Nomenclature is His Normative View of What Ecological Economics Should be

Drawing a nomenclature can be a way of describing the state of the art in a research field, by identifying different methods, epistemologies, analytical frameworks, political orientations, and so on. As much as can be done, this enables a *positive* diagnosis about the different ways of thinking within a field. However, it seems to us that the main motivation of Spash's classification is that he considers that “a shallow movement, allied to a business as usual politics and economy, has become dominant and imposes its preoccupation with mainstream economic concepts and values” (Spash, 2013, p.351). To transform this shallow movement into a deep ecological economics movement, it is necessary to provide a classification which helps identifying from where the problem comes from. Spash is clear on this point: NEP and NRE are the targets. The former is accused to adopt the language of the business to convince people of the need for biodiversity conservation and environmental protection. The latter is accused to justify theoretically and mathematically the ideology behind these business tools. As a result, in Spash's nomenclature, all “Camps” are not considered with the same esteem. SEE is clearly presented as the “good” ecological economics, whereas the two other camps are criticized. This can be seen in the wording choice. On the one hand, Spash explains that “shallow ecological economics as pushed by new resource economists offers little

which has not been on the agenda of resource and environmental economists working within the current economic orthodoxy” (Spash, 2013, p.360), and mentions that “the distinguishing feature of new environmental pragmatism is the lack of concern for theoretical rigour, especially in the social sciences, and prioritising of methods to achieve supposed ‘solutions’ on purely instrumental grounds.” (ibidem, p.355). On the other hand, when mentioning SEE, he uses expressions such as “progressive social and environmental movement” (ibidem, p.358) or that “they are concerned about rigour of explanation and not merely achieving policy-oriented goals regardless of by which means” (Spash and Ryan, 2012, p.1100). In addition, the definition given to the SEE is more detailed than for the other categories, especially to highlight how this approach takes into account system complexity, individual heterogeneity and value pluralism, suggesting that these dimensions are never taken into account by the NRE and the NEP.

Interestingly, only one “Camp” benefits from the wording “ecological economics.” NEP do not have the “chance” to be considered as economists. NRE are deprived from the ecological qualifier. In addition, the word “new” is added to existing categories (“resource economists” and “environmental pragmatists”) to highlight that, for Spash, nothing is *really new* in these camps. It is only a recycling process. In other words, the only *real* (or *Good*) ecological economists are the ones who are SEE, i.e., that belong to Spash's own camp. Others are *Bad* economists or *Ugly* pragmatic environmentalists. The nomenclature is directed towards the promotion of one particular “Camp” among the three. It is a *normative* conception of the categorization work. Ironically, Spash claims to “wish to largely avoid a simply dichotomy with deep on one side and shallow on the other” (Spash, 2013, p.352) but the title of that paper (“The Shallow or the Deep Ecological Economics Movement?”) and much of its content do everything to foster the opposition between the *Good* and the *Bad* and *Ugly*.

Moreover, this classification encourages – not to say forces – scholars involved in ecological economics to choose their side. If they pretend to work for sustainability, in Spash's view they should adopt a SEE perspective. This is problematic, in particular for people coming from other fields than economics, and not always acquainted with the debates about orthodoxy vs. heterodoxy within the field. It is also troubling for those who do not share the same conception of what an ambitious research in ecological economics should be.

Regarding the fact that new normative criteria must be adopted in ecological economics, for Spash (2012b, p.45-46), “neoclassical approaches are [...] detrimental to developing an alternative economic vision,” and a fruitful alternative – a “free ecological economics” (our emphasize) – should find some roots and tools elsewhere. Probably, yes. But at the same time, defining SEE as the only sound alternative leads to have a clearly delineated project for ecological economics; a project that is not so “free” if its followers *have to* endorse the ontological position of Spash and reject any tool or concept that has a link with mainstream economics (Strunz et al., 2017).

## 3. Three “Camps” Delineated on Unclear Criteria

### 3.1. Unclear Criteria

In Spash's classification, the categories of NRE, NEP, and SEE rest upon a mix of methodological, theoretical, and ideological differences but without resting on a clear epistemic criterion.<sup>2</sup> Political philosophy (consequentialism) is used to define NEP, economic theory and

<sup>2</sup> At some points Spash makes use of a disciplinary distinction: “New Resource Economics is embedded within orthodox economics, New Environmental Pragmatism is heavily driven by natural scientist, and Social Ecological Economics is part of heterodox economics.” (Spash, 2012a, p.22-23). Such a disciplinary criterion is a bit short to propose a classification in the ecological economics field.

mathematical formalism are used to define NRE, while SEE is defined both in opposition to neoclassical economics and as a community of researchers tackling the complexity of the economic, social and ecological systems (to summarize the long description of Spash regarding this specific category). Without a stable criterion to establish the classification, the risk is that blind spots and double belongings appear.<sup>3</sup>

### 3.2. What About Transdisciplinary Works?

We argue that many original contributions in ecological economics, which participate to the consolidation of the field, cannot be classified within one of these categories unambiguously. This is the case, for example, for the works on co-viability, co-evolution, social ecological adaptive cycles, and social-ecological resilience. The co-evolution paradigm, for instance, could be considered as a part of SEE since the foundation of the co-evolution principles is to be searched in the works of the heterodox economist Thorstein Veblen. But Spash (2012a, p.10) mentions that “the move towards evolutionary analogy runs the risk of equating human behaviour to some selfish genetic determinism or seeing human systems as purely cyclical systems subject to biophysical laws and nothing more”, suggesting that it could be considered more as part of NRE. In fact, Spash considers all the transdisciplinary concepts/theories as suspicious: “the term transdisciplinary is more often an excuse for not engaging, in any detail, with the theory or substance of disciplines claimed to be relevant” (Spash, 2013, p.358).<sup>4</sup> But Spash himself is not clear on how his critics of the transdisciplinary concepts feed his classification work. He proposes a figure (Spash, 2013, p.354) in which are mentioned new categories like “strong transdisciplinary” (crossing NEP and SEE) and “weak transdisciplinary” (a subpart of NEP), without providing concrete epistemic criteria to distinguish them.<sup>5</sup> We can suspect that the co-evolutionary paradigm is an example of “strong transdisciplinary,” but we are not sure.

### 3.3. What About the Boundary Objects?

One thing that is missing in Spash's analysis is the acknowledgment that boundary objects (models, but also transversal concepts) are

<sup>3</sup> Spash (2013, p.358) admits that crossings between the different “Camps” may happen in some occasions, especially between NEP and SEE. Surprisingly, environmental economists are supposed to be more in contact with the SEE than the NRE since it is assumed that the “environmental economists engaged directly with policy instrument and valuation work extending into social psychology are forced to reflect upon social reality. This challenges the abstract and unreal neoclassical model. In contrast resource economists can avoid direct disturbance from empirical evidence by emersion in constructing those same models and justifying their existence on that basis.” (Spash, 2012a, p.23). We do not understand this claim. What about fisheries economists (for example) using viability and/or multi-trophic models, tackling uncertainty and rejecting optimality, and who could be considered as NRE? Most of fisheries economics tries to provide policy instrument for fisheries regulation.

<sup>4</sup> We agree with Spash that a weak transdisciplinary approach can lead to underestimate the “qualitative differences” between the social, the economic, and the biological systems. But it is also understandable that using common transdisciplinary concept for improving the quality of the exchanges between scientists belonging to different academic fields is useful for addressing sustainability issues and building integrative works. In addition, the critics regarding the use of the analogy is built on the assumption that the social or the natural scientists using it were not able to take into account these “qualitative differences” while, for example, the co-evolutionary concept is not limited to a simple analogy for scientists using it (e.g., Kallis and Norgaard, 2010). It is above all the idea that there are both interactions and retroactions between technical changes, behaviors, institutions, and ecological trends, leading to consider seriously the complexity of the social-ecological dynamics.

<sup>5</sup> This distinction between strong and weak transdisciplinary did not exist in his previous paper using the same figure (Spash, 2012a) since transdisciplinary was only mentioned in the definition of NEP.

helpful in developing a common language among scientists who want to be involved in an integrative analysis. Indeed, the representations, reference scales of analysis, and axioms used in different disciplines (e.g., economics, anthropology, ecology) are all different, and each discipline may have to lower its academic standards to foster knowledge sharing. Of course, if this means adopting a simple monetary valuation or optimization modelling, most ecological economists would agree with the conclusion of Spash: the NEP and the NRE lead to develop a shallow movement. But this is also a very restrictive view of what are doing the ecological economists belonging to these categories. There are a lot of modelling works which take into account the complexity of the social ecological interactions (Boulanger and Bréchet, 2005). We could mention the co-viability modelling, the system dynamics modelling, the multi-agent modelling, the role-playing game modelling, which have all their strengths and their weaknesses, but which cannot be suspected to adopt simple optimality or equilibrium hypotheses. In addition, these modelling works can be coupled with a strong in-depth institutional analysis of social-economic system (Gurung et al., 2006).

### 3.4. What About Scientific Ecology?

Another strong concern we have with Spash's classification is the lack of ecological dimensions in all the categories. It seems that the ecological foundation of the ecological economics field is simply ineligible for him. Indeed, in the Fig. 1 in Spash (2013, p.354) describing the different categories, the ecological dimension is mentioned only twice, at the intersection of the SEE and the NEP (“political ecology”) and at the intersection of the NEP and the NRE (“ecological modernization”). Surprisingly the SEE is the only category using explicitly the word “ecology” in its name, but ecology looks like a simple “social object” in a pure constructivist view. In short, Spash's classification simply overlooks one of the foundation of the field, the scientific ecology. Indeed, these categories say that the true ecological economics is SEE, and that the true SEE is part of heterodox economics (critical institutional economics and political economy) in which the ecological discipline seems not very important.

## 4. Three Categories to Delegitimize Methodological Pluralism?

*Ecological Economics*, as the main scientific journal of the field, is in the scope of the discussion. Spash suggests that the journal has become a mainstream publication medium, because it contains mainly contributions from the *Bad* neoclassical economists (Spash, 2012b). In addition, Spash challenges the first editors in chief of the journal - Costanza and Cleveland (Spash, 2012b, p.40) - as well as the current ones - Howarth and Baumgärtner (Spash, 2013, p.359) - regarding their perception of what is ecological economics: a “big tent” in which pluralism and transdisciplinary approaches are welcomed to deal with the sustainability issues. His critics against methodological pluralism are strong. Pluralism would prevent to trace boundaries between what remains within ecological economics and what is outside the field (Spash, 2013). According to this conception, the journal should not be a broad forum of discussion, but a tool for a more methodologically and ideologically delineated scientific and societal project.

In our view, this is questionable for all the reasons mentioned above. Pluralism can be a real epistemic criterion for a deep ecological economics movement (Goddard et al., 2019). Methodological pluralism is needed since it is the only way to respect the diversity of knowledge required for understanding complex environmental problems (and the potential corresponding solutions) and to have collective learning-by-doing processes for tackling sustainability issues (Norgaard, 1989). We do not consider that the works of the researchers belonging (or supposed to belong) to NRE, NEP, and SEE are necessarily complementary, but we support the idea that the scientific controversies between them are fruitful for a deep ecological economics movement developing an original school of thought. All the concepts and methodological tools

developed in economics can be cautiously used to address some sustainability issues (Strunz et al., 2017) and it is important to understand the economic concepts and tools to be able to criticize the methodologies that are not consistent with the dynamics of the biophysical world and of the social reality (Daly, 2019).

Moreover, many scientists in social sciences, ecology and biology see *Ecological Economics* as a singular platform where there are opportunities to publish interdisciplinary/transdisciplinary articles that would not fit into the scope of other journals. This is a chance to have such a platform to get wide discussions in sustainability studies. Reducing the scope of the journal – i.e., accepting only papers from SEE – would certainly impoverish, rather than enrich, the field, regarding what is proposed elsewhere. For sure the critics formulated by Spash are useful to question the balance regarding the types of publications in the journal and, more broadly, the evolution of the ecological economics movement. But the SEE category - which is supposed to be the future of the field since it is the only one able to carry out the paradigm shift proposed by Spash (2012b) - seems to be shaped only for critical institutional economists and political economists, which dramatically reduces the scope of the field.

To conclude, Spash's classification sheds light on the inherent issues related to the tracing of borders within a scientific community. This undertaking can be done to clarify the debate and help people outside the field to circumscribe the structure of the discussions. In ecological economics, pluralism – in terms of methods, theories, analytical frameworks, philosophies of science, paradigms, ideologies and political involvements – helped to foster interdisciplinary research and creativity. There have probably been perverse effects, excesses that forgot the initial ambitions of the ecological economics agenda, which was to initiate a paradigm shift. These limits need to be identified and corrected by in-depth analysis of the foundations of the field (e.g., Baumgärtner et al., 2008; Baumgärtner and Quaas, 2010; Franco, 2018; Spash, 2013; Gerber and Scheidel, 2018; Spash, 2019). But considering that there are globally *Good* and *Bad* ecological economists (notwithstanding *Ugly* ones) is maybe not the best way to further develop the field.

### Acknowledgement

We thank Antoine Missemmer, as well as the editor and two referees for their helpful comments.

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