



Analysis

Critique and transformation: On the hypothetical nature of ecosystem service value and its neo-Marxist, liberal and pragmatist criticisms



Andony P. Melathopoulos^{a,*}, Alexander M. Stoner^b

^a School for Resource and Environmental Studies, Dalhousie University, Kenneth C. Rowe Management Building, 6100 University Avenue, Suite 5010, P. O. Box 15000, Halifax, NS B3H 4R2, Canada

^b Department of Sociology, Salisbury University, Fulton Hall Room 269, 1101 Camden Avenue, Salisbury, MD 21801-6860, United States

ARTICLE INFO

Article history:

Received 21 December 2014

Received in revised form 28 May 2015

Accepted 15 June 2015

Available online 16 July 2015

Keywords:

Critical theory

Political ecology

Marx

Friedrich Hayek

Intergovernmental Platform on Biodiversity

and Ecosystem Services (IPBES)

The Economics of Ecosystems and Biodiversity

(TEEB)

Millennium Ecosystem Assessment (MEA)

Frankfurt School

Bryan Norton

Mark Sagoff

Karl Polanyi

Neoliberalism

Market environmentalism

Neoliberalism

Value

Capitalism

ABSTRACT

Ecosystem service valuation (ESV) attempts to transform the opposition of human economic necessity and ecological conservation by valuing the latter in terms of the services rendered by the former. However, despite a number of ESV-inspired sustainability initiatives since the 1990s, global ecological degradation continues to accelerate. This suggests that ESV has fallen far short of its goals of sustainable social transformation—a failure which has generated considerable criticism. This paper reviews three prominent lines of ESV criticism: 1) the neo-Marxist criticism, which emphasizes the “fictitious” character of ecosystem commodities; 2) the liberal criticism through Friedrich Hayek’s concept “scientific objectivism”; and 3) the pragmatist criticism of “value monism”. Although each form of criticism provides insight into the limitations of ESV, all share ESV’s inability to discern what kind of social transformation is *possible*. Unable to provide an account of their own immersion in social and historical context, these approaches operate in the *hypothetical*. In light of these shortcomings, this paper advances a critical theory approach, which we contend provides conceptual tools uniquely well-suited to more adequately address the question of social transformation.

© 2015 Elsevier B.V. All rights reserved.

1. The Hypothetical Character of Ecosystem Service Valuation (ESV)

Increasingly the conservation of ecosystems is justified on the basis of the economic value of the human welfare these ecosystems support. Since many of the “services” supplied by ecosystems (e.g. carbon sequestration, water purification, habitat for insects pollinating nearby crops) are not currently captured in markets, advocates of Ecosystem Service Valuation (ESV hereafter) hope to revitalize conservation efforts by calculating and revealing the associated and hidden welfare benefits (e.g. Armstrong et al., 2007; Costanza, 1996; Daily, 1997; Liu et al., 2010; MEA, 2005).

At the same time, ESV has been unable to address the intricate inter-relationship between social-structure and ecology. While the majority

of ecosystems that contribute to human well-being are currently being degraded, much of this degradation has accelerated throughout the latter half of the twentieth century (MEA, 2005)—*precisely the period in which ESV developed*. This includes the 1980–1990s, a period that Gómez-Baggethun and Ruiz-Pérez (2011) suggest gave rise to myriad of market-based environmental protection initiatives; the immediate precursors of ESV. Yet, many of the initiatives from this period (e.g. managing externalities of pollution through tradable allowances (Newell et al., 2013; Stavins and Schmalensee, 2012), wetland mitigation banking (Robertson, 2006) or promoting local economic development as a means to slow biodiversity loss (Ghazoul, 2007; Muradian et al., 2013)) have fallen far short of their anticipated goals.

ESV initiatives developed in the last decade have fared no better. The first international wave of these initiatives, the Millennium Ecosystem Assessment (MEA, 2005) and The Economics of Ecosystems and Biodiversity (TEEB) (2007), coincided with the failure to meet the

* Corresponding author.

E-mail address: Andony.Melathopoulos@dal.ca (A.P. Melathopoulos).

Millennium global targets on biodiversity (2000–2010) (Butchart et al., 2010). Expectations are high that the accumulation of research, theoretical approaches and practical experience with ESV will finally coalesce under the Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES) (Cardinale et al., 2012; Perrings et al., 2011, 2010). This assessment, however, presupposes that the prior limitations of ESV were technical in nature and that future limitations can be resolved by simply *more* research, theory and operationalization (e.g. Daily, 2000; Daily et al., 2009; Kinzig et al., 2011; Kremen, 2005; Kremen and Ostfeld, 2005).

Such a narrow focus on technical and operational shortcomings is indicative of what we will refer to as ESV's *hypothetical* character. The focus on technical progress, we contend, is not incidental, but emerges from an assumed distance from the social–historical context that generates ecological deterioration. ESV, then, operates in the hypothetical insofar as it presupposes a separation between itself and the social–historical context within which its activity takes place. Indeed, ESV advocates are able to think of themselves as making progress, despite their own prognosis that ecological systems are being degraded, because they assume an Archimedean standpoint outside of the ecologically destructive dimensions of society. It is by virtue of this decontextualization that ESV advocates are able to perpetuate the assertion that more and better market valuations of “ecosystem services” will overcome past failures, in spite of any evidence of efficacy (Laurans et al., 2013). However, ESV fails to provide an adequate account of ecological degradation (much less a feasible strategy towards sustainability) because its practitioners are unable to grasp how their activity is *mediated* by a social–historical context deeply connected to patterns of ecological degradation. The ESV approach is *hypothetical* because it lacks the means of discerning how the constitutional logic of modern capitalist society might inhibit: 1) efforts to illuminate this structure and 2) collective efforts to deal with pressing social problems, such as global climate change, in an effective manner (i.e. in a manner that does not regenerate the problem itself in a different form) (Dahms, 2008: 14–15).

Likewise, scholars examining the continual degradation of global ecological systems have not yet fully recognized the social and historical context through which such degradation takes place. Amid historically unprecedented levels of political–economic global interconnectivity following the end of the Second World War (see, e.g., McNeill, 2000), the acceleration of ecological degradation throughout the latter half of the twentieth century appears paradoxical: *In the post-WWII era, degradation is compounded in proportion to our awareness of these problems* (Blühdorn, 2013; Stoner, 2014; Stoner and Melathopoulos, 2015). Following Stoner (2014), we refer to the paradox of increasing ecological degradation amid growing environmental attention and concern as the *environment–society problematic*. Unable to discern this paradoxical historical development, the normative aim of ESV (i.e., sustainability) is not borne out in practice and remains *hypothetical*. The rising tide of ESV—far from indicating an increasing capacity to shape our future towards less ecologically-destructive ends—actually signals a growing inability to shape (let alone understand) the social–historical context that is generative of such runaway ecological degradation.

This is not to suggest that the limitations of ESV have gone unnoticed. Criticisms have mounted with recognition that ESV coincides with the deterioration of key biophysical indicators. Chief among these are 1) neo-Marxist; 2) liberal; and 3) pragmatist lines of ESV criticism.¹ Although these three lines of criticism represent the most significant attempts to understand the limitations of ESV to date, none

¹ For the sake of brevity and clarity, we will select authors whose works we believe offer exemplars of each approach, though we certainly recognize that these scholars may or may not self-identify with the labels (neo-Marxist, liberal, and/or pragmatist) we ascribe to them.

are able to make historical sense out of the growing popularity of the ecosystem service approach itself. As we endeavor to demonstrate, this is in large part because the theories underlying each criticism are also unable to grasp their own immersion in society and history. In this way, critics are only able to consider ESV as either “wrong thinking” or determined by agents that somehow stand outside or above society (e.g., market environmentalists, ecological technocrats, hardened ideologues). Consequently, like ESV, the criticisms are restricted to reacting to social transformations, passively describing these changes, but never being able to regard them reflexively — never attaining the level of a theory about how society could potentially change. In other words, both ESV and its criticisms fail to recognize the *potential* for society to *change* because neither can grasp the deeper causes of social discontents (e.g., discontents to which an ecologist who calculates ESV or those who promote their estimates are ultimately responding to) or the ways in which such discontents are integrated back into the structuring logic of modern capitalist society, thereby allowing long-standing socio-ecological problems to be perpetuated.

This paper engages in an immanent critique of the neo-Marxist, liberal, and pragmatist attempts to understand the limitations of ESV in order to illuminate the historical specificity of our current inability to locate a social basis for ecosystem conservation. Our immanent critique reveals how, in opposing ESV, these criticisms reproduce its most problematic feature: environmental degradation is decontextualized and, as a result, sustainability remains hypothetical. Against this background, we outline two key methodological motifs of a critical theory approach, which we contend provides conceptual tools that are uniquely well-suited to more fully comprehend the links between economic progress and ecological deterioration and the discontents this generates.

2. The Criticism of Ecosystem Service Valuation (ESV)

2.1. The Neo-Marxist Criticism: Ecosystem Services as Commodities

The neo-Marxist line of criticism (exemplified by Kallis et al., 2013; Kosoy and Corbera, 2010; Peterson et al., 2010; Robertson, 2012, 2000) argues that ESV fails because the process of abstracting commodities (i.e., services) from ecosystem functions obscures the complicated interconnections within ecosystems and between society and ecosystems, leaving us to mistakenly “think that capital grapples directly with material nature” (Robertson, 2012: 396). Moreover, the abstraction of value from ecosystems undermines the potential awareness of these interconnections because consumers, land managers, ecologists and others become fixated on ecosystem values in the market, a process Kosoy and Corbera (2010) liken to the worship of a fetish object in pre-modern societies. Kosoy and Corbera's reference to this fetish-like reverence of ecosystem value, like all neo-Marxist criticisms of ESV, draws on Marx's analysis of commodities in *Capital Vol. 1*, specifically the final section of Chapter 1 titled “The Fetish of the Commodity and Its Secret” (Marx (1976 [1867]): 163–177). The criticism, in turn, rests on a careful analysis of the social and ecological implications associated with each of the stages in transforming ecosystems into a commodity that can “bear value” (Robertson, 2012: 388)—that is, the itemization, characterization and spatial mapping of ecosystem functions, their re-categorization as ecosystem services and their packaging or bundling into tradable commodities.

According to the neo-Marxist criticism, the significance of this technical process in creating “a more and more differentiated realm for the circulation of capital” (Kosoy and Corbera, 2010: 1231) is in stark contrast to ESV advocates, who view the process of technical innovation as key to resolving ESV shortcomings. Indeed, the neo-Marxist criticism provides a compelling account for why technical solutions appear efficacious to ESV practitioners. By structuring the way society understands its relationship to ecosystems — in terms of “services” that “bear economic value” — the definition and specification of those

Download English Version:

<https://daneshyari.com/en/article/5049287>

Download Persian Version:

<https://daneshyari.com/article/5049287>

[Daneshyari.com](https://daneshyari.com)