Can ecological entrepreneurship address ecological anxieties?

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Abstract: This study calls into question the effectiveness of Ecological Entrepreneurship (EE) as a solution to abuses on the natural world in the absence of political will power and appropriate governance and visionary clarity at the macro-level of society. This article uses a range of literature on EE to discuss the limitations and ideological underpinnings of EE. Findings support that EE is rooted in mainstream science and technology and, therefore, offers predominantly market-based solutions. The study critically examines the limitations of EE as a concept as well as practice.

Keywords: Ecological Entrepreneurship, sustainability, entrepreneurial discourse, environmental policy, stakeholders

INTRODUCTION

In the recent years, Ecological Entrepreneurship (EE) has emerged as an important agent of change because eco-innovations inevitably lead to competitive advantages of companies and countries. It is argued that if companies and countries want to be successful in the international market, they cannot simply rely on having low-cost products as their sole competitive advantage. They have to explore innovative environmental technologies, services, and processes to garner a better competitive advantage.

Ecological Modernization Theory provides the rationale for EE (Hajer 1995; Mol 1995) claiming that entrepreneurs are the transformative agents in the process of eco-modernization, which takes care of ecological crises (Gibbs 2006; Mol and Spaargaren 1993; Tilley and Young 2006). EE is an upshot of the concept of ecological modernization linked to the idea of sustainable development of the 1990s. Early programs based on ecological modernization were Eurocentric and corporate-driven. Sustainability, then, was founded on

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a vision of an integrated approach to technical, economic, social, political, and ecological issues. They depended on collaborations between governments, a strong economy, and the capacity and the willingness to invest in change (Mol and Sonnenfeld 2000). Sustainability today, however, is a broader, inclusive concept with a stronger social justice element emphasizing the needs of the poor, future generations, and other species beyond humans.

EE is founded on the idea of sustainable development. The problem is sustainable development remains ambiguously defined and controversial (Hall, Daneke, and Lenox 2010), although it has emerged as an influential concept for entrepreneurship policy, practice, and theory. It is guided by the Panacea Hypothesis, which states that green, clean, and low-carbon entrepreneurs will find the remedies for the vagaries of the aging industrial economies. This assumption is too wide and optimistic and misses the test of real-life conditions that shape EE. Despite being an important driver of eco-innovation, EE is conditioned by several extraneous factors such as political will power, state of the market competition, and public policy.

Not to discredit the honest efforts of a handful of dedicated ecopreneurs, the mainstream market remains glued to the vicious cycle of production, consumption, profit orientation, capital accumulation, and expansion. 'Growth' being the central signifier, this system derives substantial discursive weight from a consortium of jargon such as 'turnover', 'GDP', 'supermarket', and 'blue-collar jobs'. New technologies add to the upkeep of this system and many a need-based real market in the remote regions of the world keep on changing into hypermarkets driven by the rhetoric of development.

The market-driven culture is an oppressor against nature and mankind at large and is difficult to sustain. Time and, again, the hypermarket, sick of its internal contradictions, experience massive bubble effects, and in the subsequent bid for restoration, the old entrepreneurial agenda in the new bottle and related shifts in semiotic reconstruction come to the fore.

This article argues that EE is one of the upshots of such semiotic restructuring of the obsessions with development and is rooted in the ideology of growth; and therefore, despite its green aspirations, it shares a majority of the contradictions of the mainstream growth-ridden economics.

THE SCOPE AND LIMITATIONS OF EE

The economic recession of 2008 triggered the notion of a world green economy that can put together economic growth, environmental sustainability, and social equity. Two decades earlier, Agenda 21 sought to put these values on the economic agenda followed by the Millennium Development Goals. However, cumulative interest in *green new deals* and *green economy* sprang out of the financial crisis in 2009 which sent shocking alarms to the world capitalist system. Green new deals were proposed to transform and re-regulate the international financial sector; provide an opportunity for state intervention to encourage Low Carbon Economy (LCE) by gradually moving away from fossil fuels to mitigate the issues related to *peak oil* and *energy crunch* (Affolderbach and Krueger 2017). Therefore, LCE henceforth comes to the fore as a metonym for sustainability in the new semiotic makeover.

An LCE can at best be explained as a *move towards* a *green* economy. However, in their bid to restructure their economic activities and political agenda, the world economic elites playfully equate LCE to a green economy. Therefore, the much-acclaimed Structural Adjustment Programme takes place not only at the political-economical level but also in the *feel-good* zone of language and communication. Businesses continue to remain market-driven and profit-oriented, new consumers and new consuming trends are created, soft sale communication strategies boom up nuanced with the jargon such as 'organic', 'eco-friendly', and 'green planet'.

The term 'natural capital' came to be used varyingly ranging from clichés to euphemism hiding the covert ideology of viewing nature as a *resource* to be exploited optimally. Intellectually alluring, the term draws upon its sonorous and alliterative rhythm with the comity of nuanced phrases such as 'human capital', 'knowledge capital' and 'social capital'. Anchored in the neo-liberal market logic of restructuring and expansion, nature remains subjugated to the corrosive system of overproduction and conspicuous consumption.

The trans-generic *equity* of economy and ecology was the point of concern in the Rio de Janeiro Summit, 1992. Alarming CO_2 emissions, global warming, and climate change, and attendant greenhouse effects were the focus of the Kyoto Protocol, 1997. However, consensus on environmental action plans still eludes us and is marred by divisions of opinion across developed and developing nations. Such macro-level failures affect the consolidation of environmental values and related

action plans at national, sub-national, and regional level, with thousands of scattered ecopreneurs operating within their ideological and functional limitations.

'Green technological innovation' and 'renewable energy' stand out as the most prominent signifiers of a process-bound approach to eco-friendly products. Let's talk about the case of solar energy. Wastes produced from solar panels may look quite meager compared to those from the use of fossil fuels, but in the long term, they mount up. Recycling, re-use, or biodegradation of the waste from the renewable energy sector pushes for further technological solutions: more industries, more energy input, further transport…, and additional pressure on the eco-system. The chain is endless: coiled in a vicious cycle growth, supply chain, and consumption.

One of the impressive jargon in the chain is 'polluter pays'. It carries an overtone of environmental justice. However, in most of the cases, the polluter ends up paying some amount of financial penalties whereas being sentenced is quite rare. The fines paid to constitute a minor part of the polluter's profits, and the next day, s/he is seen enjoying life in parties and bars or sharing chairs with political leaders. The entire world communities are the witness to the consequences of the Bhopal Gas Leak case and, how covertly, two of the largest democracies of the world (The US and India) offered safe passage to Mr. Anderson. Similarly, Vedanta Limited's gross violation of tribal rights and environmental laws in Lanjigarah in Odisha has invoked a few warnings from the court -- at best leading to the closure of mining activities. However, the main perpetrators (i.e. the owners of the company) are not taken into task, despite their repeated attempts to bias the court through misleading affidavits and non-existent data.

Jargons usually create a sense of profundity, authority, or prestige to the claims related to environmental actions. To some extent, they function as nice sounding technical euphemisms meant to cover up the environmental abuses. Nowadays, a lot of products claim to be "recycled", "biodegradable", or "ozone-friendly". For example, Tetra Pak's and Combibloc's claim that their juice boxes are "easily recyclable" while in reality there are no such recycling programs meant for juice boxes (Carroll 2005). Mobil Corp. claims that its Hefty trash bags are "degradable" whereas they degrade only after sufficient exposure to the solar ultraviolet light. In practice, a large chunk of such bags ends up being buried under the ground (Ibid). Similarly, Carnation Breakfast Bars claims that it can provide 25% of required

protein, if added with a glass of milk whereas, in reality, the protein comes from the milk itself (Ibid).

The biodegradability of a product depends on the significant amount of biodegradable materials it contains. Moreover, the claim that a particular product is compostable will be misleading if the proper facilities for composting is not available around. In the absence of real-time composting facilities, Robert Todd Carroll questions Proctor and Gamble's claim that it *is developing* the technology that converts disposable diapers into compost.

The real value of a sustainable product or service cannot be easily identified in the conventional views of business or consumption. Consumers, on the other hand, basically look for tangible values such as design, durability, taste, cost, etc. Extra investment in greening adds to the per-unit price of a product that makes the product cost-wise less competitive than non-green products. Moreover, in nations lacking in good governance, it is difficult for the consumer to believe in the quality of a product because of widespread adulteration and misleading claims. Therefore, the mass appeal of green products remains constrained, relegating them to the *margins* of the mainstream market, i.e. to the *niche markets* or a special *class* of consumers.

A few individual ecopreneurs kept aside, the mainstream global economy is still wedded to the triple vagaries: high carbon, high growth, and high consumption. The process discourse of EE is largely focused on the central signifier "low carbon" as the guiding principle of the forthcoming green economy (see, for example, Smith, Voß and Grin 2010; Davies and Mullin 2011). By the way, this differentiates future economies and societies from its current form in terms of renewable energy, hybrid cars, and green jobs. However, the EE discourse is silent on the two next vagaries: *high growth* and *high consumption* including artificially stimulated consumption. This means the base structure of the capitalist, consumption-led, and market-oriented economies will remain unchanged.

The second problem is related to the third-party certification of the firm's voluntary sustainability actions. At the international level, there are rules based on which voluntary sustainability standards are developed to verify firms' environmental and social conduct. Accordingly, the sustainability actions and disclosures of a firm are certified based on a third-party audit. However, in recent years, this method is beset with uncertainties because of the proliferation of contentious and overlapping global sustainability standards. This is a

de-motivating factor for many firms to adopt any sustainability standards because it triggers the risk perception that it might create barriers for a firm's access to export markets (Montiel, Christmann, and Zink 2019).

The third problem is that there are wide gaps across individual entrepreneurs from social enterprises, small scale industries, and large businesses, with the latter being better equipped in terms of finance, access to green technology, and green knowledge system to carry out sustainable practices. Ironically, technological innovations, institutional changes, and shifts in governance in most large scale businesses follow the rules of the markets and the dominant logic of capital accumulation and growth.

An exemplary eco-brand like Patagonia made possible for something called the Sustainable Apparel Coalition, a conglomerate of big retailers, like Walmart, Macy's, and the Gap. It worked consistently to devise a system of sustainability grading for every product. Patagonia tried everything: from growing organic cotton to recycling and repairing products and enhancing the durability and life-cycle and aligning eco-branding principles to business communication. Despite this self-guided effort, Yvon Chouinard, Patagonia's philosopher-king was not satisfied with the way businesses were growing at the cost of natural environments. It was because of the ecologically unmanageable *volume of growth*.

Containing the volume growth may be an unsustainable idea itself because it goes against the very foundation of the neo-liberal economy anchored in mass production and mass consumption. Radical containment of growth will send shock-waves to everywhere: from catastrophic recession to unmanageable unemployment, from nation-states to corporate leaders whose power, legacy, and identities are firmly rooted in patented productions and mass marketing principles.

Converting the principles of *growth* to *eco-growth* through eco-entrepreneurship is a transitional solution to the problem; and applying greening principles to the sheer volume of production-consumption-disposal is a task beyond commonplace efforts and resources. A counter-intuitive perspective (Di Baldassarre et al. 2018) claims that the water crisis in different regions can exasperate due to the side effects of water reservoirs in the long run. As increased water supply multiplies the water demand, initial benefits from the reservoirs become unsustainable and, often, lead to droughts and other vulnerable conditions. On this premise, there is every possibility that civilization

will face the same effects concerning green and renewable energy supplies.

CONCLUSIONS

The dichotomy between the primacy of nature and life on one side and human welfare and development on the other can be resolved by combining the principles of *prudent eco-growth* and *selective de-growth*. Successful action against climate change and environmental degradation requires multiple negotiations towards consensus. Eco-growth is inevitable because de-growth is not acceptable at this moment of human civilization. EE, therefore, remains as the metonym for eco-growth.

Parallel to eco-growth, *sector-wise de-growth* as a principle can be steadily woven into our economic system. At the outset, countercultural habits can be nurtured by a gradual rejection of certain lifestyle choices having highly negative environmental impacts. Set Wynes and Kimberly A. Nicholas (2017) recommend four widely applicable high-impact actions that can lead to a substantial reduction in annual emissions (in terms of tonnes CO_2-equivalent / tCO_2e) at the personal level: "1) having one fewer child (for developed countries average savings of 58.6 tCO_2e); 2) living car-free (2.4 tCO_2e); 3) avoiding airplane travel (1.6 tCO_2e per roundtrip transatlantic flight); and 4) eating a plant-based diet (0.8 tCO_2e)." The authors suggest that school children and adolescents should be the target group for such cultural change, which can be possible by improving existing educational and communication structures to promote the most effective emission-reduction strategies.

At the same time, citizen-centric acculturation strategies can be promoted by the governments and private entities targeting step-wise elimination of the production of harmful plastic and chemical fertilizers and pesticides. At each step of this acculturation, keeping the supply of alternative products and services is more important than education and communication. Ecopreneurs can contribute at each stage of this corrective path.

A stronger EE can be promoted through diverse and profound changes in society's institutional structure, economic system, and the core values that guide them. This brings in the need for changes and related dialogues at the discursive level too. The stronger EE discourses and action plans should be founded on a gradual shift from: 1) the obsession with growth and material development and 2) *Jobs-*

versus-environment to *life-versus-environment*. The change has to be inducted everywhere: from education planning to the modes of production, from public policy to individual self-restraint. The triple powerful agents of such transformation are education, advocacy, and civil society movements. As the top brass of the political economy is stubborn and resistant to faster change, at the bottom line, the citizen has to be a thinking and assertive consumer, well versed with the idea of ecological equity and willing to assert the right to green life.

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