ECOLITERACY, ENCHANTMENT, AND CONSLIENCE

Keywords: ecoliteracy; ecopedagogy; conscientization; consilience; praxis

Abstract: In this paper I focus on ecopedagogy, ecoliteracy, and the role of literary texts and cultural sites in the field of practical ecocriticism. I argue that the literary author as an ecopedagogue and “nature endorser” (Love) has been understated and undervalued in ecocritical discourse, especially in terms of their potential role in synthesising science and the humanities, and in galvanising critical thinking. I maintain that this authorial role is multifaceted but ultimately it functions to facilitate the Freirean notions of conscientization and praxis: to instil knowledge, transform consciousness, and create dialogue in order to challenge the normalised ideological and ontological conceptions of “the natural order of things.” I argue that the integration of aesthetic texts, or “narratives of enchantment” (Bennett), with the impersonal and objectified world of scientific fact, leads to an optimal aesthetic methodology to comprehend nature, and understand humanity’s current dichotomous and antagonistic relationship with it. This is what I term the “ecoliterary text,” which, then, is a pedagogical tool based on ecology, science, values, morality, emotion, ethics, and politics. This amalgamation, I argue, renders the ecoliterary text as “a new kind of nature literature” (Huxley), which ultimately leads to scientific and ecological literacy, to biocentrism, to a new paradigm of holistic thinking and interconnectedness with the ecosystem, and to Freirean notions of praxis.

Up to the age of thirty, or beyond it, poetry of many kinds…gave me great pleasure, and even as a schoolboy I took intense delight in Shakespeare, especially in the historical plays. I have also said that formerly pictures gave me considerable, and music very great, delight. But now for many years I cannot endure to read a line of poetry: I have tried lately to read Shakespeare, and found it so intolerably dull that it nauseated me. I have also lost almost any taste for pictures or music. […] My mind seems to have become a kind of machine for grinding general laws out of large collections of fact, but why this should have caused the atrophy of that part of the brain alone, on which the higher tastes depend, I cannot conceive. […] The loss of these tastes is a loss of happiness, and may possibly be injurious to the intellect, and more probably to the moral character, by enfeebling the emotional part of our nature.

Charles Darwin, Autobiography

Charles Darwin’s sentiments here encapsulate much of what is problematic when one follows a scientific ontological paradigm at the expense of the artistic and aesthetic.

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1 Quoted in Schumacher (80).
What Darwin did not know, and where many scientists and humanists alike are still unaware, is that the two paradigms need not be mutually exclusive. Indeed, I will argue here that the ecocritical text is the perfect vehicle to merge these arguably antagonistic fields, and, more importantly, that it can lead the way to *praxis*.\(^2\) This is essential for notions of practical ecocriticism: action needs to follow from the theory or ideas in order to achieve real, tangible change.

The context for my argument is mired in the notion that the current environmental crisis is a result of, and framed by, what theorists claim to be a cultural pessimism stemming from Francis Fukuyama’s notion of the “end of history.” Our sense of postmodern agency in consumer capitalist society is now comprised as a post-political, post-democratic, and representing pure negativity, or the death of politics, reflected in many ways by Slavoj Zizek’s claim that “ecology is a new opium for the masses.”\(^3\) This ontological perspective alienates the individual from nature and politics, obliterates the notion of the political, and creates an ontology of apathy, disillusion and confusion, which in turn complicates the notion of *praxis*.

One of the significant causes of this malaise is science, and the way that Western intellects have been thinking about science since the scientific revolution of the 16th and 17th centuries. Current scientific practice is still arguably based on mechanistic, reductionist, impersonal and dispassionate thinking; on objectivity, reason, instrumental rationality, and the principles of the Enlightenment. It is also the paradigm that has dominated Western ontology and has led the way for many theorists to comprehend our understanding of nature and the looming environmental crisis. In his latest work, *The Science Delusion* (2012), Rupert Sheldrake explains that “science has dominated and transformed the earth. It has touched everyone’s lives through technology and modern medicine. Its intellectual prestige is almost unchallenged. Its influence is greater than that of any other system of thought in all of human history” (13). What is problematic with this hegemony is that science, although necessary to understand how our world operates, is essentially a discipline that is neutral, devoid of values, and thus, flawed, as the Darwin quotation at the beginning of the paper reveals. Moreover, science is also flawed *structurally* because it only provides a perfunctory form of perception or *consciousness*; it does not impact the deeper levels of epistemological or ontological understanding. In his influential and ever prescient *Small is Beautiful* (1973), Ernst Schumacher explains:

\(^2\) *Praxis* as I use it is outlined by the Brazilian pedagogue Paulo Freire whereby individuals move from a state of ignorance to that of knowledge or understanding through a process of *conscientization* and critical thinking, which then leads to empowerment, which then leads to action. I also rely on David Macey’s definition that it is “purposeful human activity; […] practical action on the world, or as the practical transformation of the world in accordance with a desired end or finality” (311), and Peter McLaren’s definition: “Only the conversion of knowledge into action can transform life” (xxv).

“Science and engineering produce ‘know-how’; but ‘know-how’ is nothing by itself; it is a means without an end, a mere potentiality, an unfinished sentence. ‘Know-how’ is no more a culture than a piano is music” (66). He claims that “[e]ven the greatest ideas of science are nothing more than working hypotheses, useful for purposes of special research but completely inapplicable to the conduct of our lives or the interpretation of the world” (71). Nonetheless, this scientific hegemony has been firmly accepted as scientists continue to engage in a Frankensteinian quest for knowledge and progress.

This has had major repercussions in terms of anthropocentrism and for “Othering” the Earth, as many ecocritics have highlighted. Harking back to a pantheistic world when human communities were much more attuned to Nature, and the latter was “purposive,” Jane Bennett laments how “this pre-modern world gave way to forces of scientific and instrumental rationality, secularism, individualism, and the bureaucratic state – all of which, combined, disenchant the world” (7). Stephan Harding recognises this disenchantment and explains that current science needs to do more than offer the dry language of scientific discourse; he also provides an assessment of where science is askew:

…our scientific understanding ignores the equally vital contributions that our sensory experience, our ethical sensibilities and our intuitive capacities can make to a more holistic understanding of the Earth and our place within it. The problem, more succinctly put, is that our current … [scientific] paradigm emphasises quantities at the expense of qualities, and prioritises facts over values. (91, my emphasis)

Many contemporary scientists, such as Richard Dawkins, Fritjof Capra, James Lovelock, and Richard Jay Gould, also acknowledge this predicament, see current scientific ontologies as disenchanting the world, and want to open science to new methodologies that underscore the need for thinking about science, and nature, differently. For, as Sheldrake states: “Most of our experience is not mathematical. We taste food, feel angry, enjoy the beauty of flowers, laugh at jokes” (31).

However, despite the efforts of these credible and popular scientists, this emphasis on creating a new scientific way of thinking that attempts to escape the shackles of the dogmatic ideology and reductionism inhibiting scientific creativity is still lacking. A way forward, Edward Slingerland suggests, is to turn to the arts:

As natural scientists begin poking their noses into areas traditionally studied by the humanities – the nature of ethics, literature, consciousness, emotions, or aesthetics – they are sorely in need of humanistic expertise if they are to effectively decide what sorts of questions to ask, how to frame these questions, and what sorts of stories to tell in interpreting their data. (9)

This echoes Schumacher’s statement from the 1970s: “what we learn by studying a particular science is in any case too specific and specialised for our wider purposes. So we turn to the humanities to obtain a clear view of the large and vital ideas of our age”
Sheldrake articulates this even better when he proposes his solution: “In my experience, storytelling works best” (91). This is where a synthesis can occur, i.e. consilience, and where the humanities can play a significant role; it is where literature as an aesthetic form, through this emphasis on storytelling and narrative, can lead scientific and ecological discourse out of its current predicament. Scientists are crucial to humanists in relation to environmentalism: we need to know the ecological facts, and the ecological crisis can and must be understood scientifically. But these facts need to be morphed with morality and value systems, and need to be more connected to individuals on personal, spiritual, ethical, and ontological levels. This leads me to the role that fictional literature can play in this discourse.

Fiction has always been effective in setting up or destroying taboos, conventions, and social prejudices, thus contributing to changes in epistemological and ontological thought which in turn instigated social and political change, whether this has been in terms of challenging patriarchy and gender inequality, racism, or disparities of social position, class, or wealth. There are many fictional texts one could mention here, but novels such as Mary Wollstonecraft’s Maria; or, The Wrongs of Woman (1798), Charles Dickens’ Hard Times (1854), Upton Sinclair’s The Jungle (1906), or Chinua Achebe’s Things Fall Apart (1958), are just a few examples of novels being catalysts that led the way to Freirean praxis: to real and tangible changes in society. The ideas conveyed in the texts represented conscientization, while the subsequent action provoked from the critical thinking represented the praxis. Apart from perhaps also capturing the zeitgeist, the reasons these texts had this effect is mostly a result of their content and form.

That a literary text can represent a cerebral and creative mediator that can change culture is illuminated by Hubert Zapf’s work in relation to literature. For Zapf, “Literature draws its cognitive and creative potential from a threefold dynamic in its relationship to the larger cultural system – a cultural-critical metadiscourse, an imaginative counterdiscourse, and a reintegrative interdiscourse” (138). He explains that:

Literature is thus, on the one hand, a sensorium for what goes wrong in a society, for the biophobic, life-paralyzing implications of one-sided forms of consciousness and civilizational uniformity, and it is, on the other hand, a medium of constant cultural self-renewal, in which the neglected biophilic energies can find a symbolic space of expression and of (re-)integration into the larger ecology of cultural discourses. (138)

For critical pedagogy, and ecopedagogy, this is crucial. Henry Giroux explains this in a different way when he states that artistic texts “become important as public pedagogies because they play a powerful role in mobilizing meaning, pleasures, and identifications” (Giroux). This, then, provides the reader with epistemological and ontological understandings, considerations that were potentially hidden or invisible due to ideology, which inform their decisions on how they should live. Italo Calvino confirms: “Literature ‘gives a voice to whatever is without a voice, when it gives a name to what as yet has no name, especially to what the language of politics excludes
or attempts to exclude” (quoted in Re 153). This very much empowers the author, or “change agent,” to use Karen Blincoe’s term, as a radical educator, especially in terms of politics and agency.

Where this is important for ecocritical discourse is also reflected in Frankfurt School scholar Herbert Marcuse’s ideas about art outlined in The Aesthetic Dimension (1977), which focuses on the categorical imperative: “things must change” (13). Marcuse claims that art can challenge accepted truths in the existing reality by focusing on its capacity to represent reality and to estrange reality. He claims that “the truth of art lies in this: that the world really is as it appears in the work of art” (xii), but that is also lies “in its power to break the monopoly of established reality (i.e., of those who established it) to define what is real” (9). He then explains that “in this rupture, which is the achievement of the aesthetic form, the fictitious world of art appears as true reality” (9). This “true reality” established in the world of art, “is that of another Reality Principle, of estrangement – and only as estrangement does art fulfill a cognitive function: it communicates truths not communicable in any other language; it contradicts” (10). This, then, has positive implications for the power of literature in relation to epistemology and ontology. Terry Eagleton espouses this power, stating: “If literature matters today, it is chiefly because it seems to many conventional critics one of the few remaining places where, in a divided, fragmented world, a sense of universal value may still be incarnate, and where, in a sordidly material world, a rare glimpse of transcendence can still be attained” (208). This transcendence and depictions of alternative realities and truth is crucial, but so is the connection of art to ethics and values.

John Carey, in What Good are the Arts? (2005), makes an interesting case for the superiority of literature and its transformative effects, boldly claiming: “Only literature can moralise” (181). This view echoes many literary critics who deem that we are naturally inclined to speak of literature in moral terms, and that literature is an optimal vehicle for the internalisation of moral beliefs. For example John Gardner, in On Moral Fiction (1977), claims that “art is essentially and primarily moral – that is, life-giving – moral in its process of creation and moral in what it says” (15). Noël Carroll, in ‘Art, Narrative, and Moral Understanding’, explains that we are “naturally inclined to speak of [literature] in moral terms.” He states that “certain kinds of artworks are designed to engage us morally, and with those kinds of artworks, it makes sense for us to surround them with ethical discussion and to assess them morally,” and thus that “it is natural for us to think about and to discuss narratives in terms of ethics, because narratives, due to the kinds of things they are, awaken, stir up, and engage our moral powers of recognition and judgment” (141). Narratives work in this way because to understand morality, readers engage in a social process through reading the text, consciously and unconsciously, asking questions and analysing different perspectives, which engages their moral compass, as well as their powers of empathy and compassion. The narrative, in this way, forces individuals to think, but also to feel. Arnold Weinstein, in A Scream Goes Through the House: What Literature Teaches Us About Life (2004), sums this up well: “Without literature, we would be bereft and impoverished creatures, denizens of a flat and
dimensionless world, a world with no more depth than a photograph, that has no more scope than a résumé or a medical report. Art and literature go in” (xxiii). This ability to go in is a result of literature being able to appeal to values: to emotion, to empathy, to what it means to be human, to recognise that which is around us, and to understand what ramifications result from our actions.

Thus, it is the medium of literature that can deliver in this regard: it represents a pedagogical, ideological, and political tool; it appeals to values, morality, emotion, and the imagination, and thus, has a significant impact on human cognition, consciousness and the conscience. As such, it plays an important role in critical pedagogy in terms of leading the reader, or student, to developing new critical thinking skills, and new understandings that can lead to praxis. To apply this to ecopedagogy, and to return to science, this is something that mechanistic science is arguably not doing. Greg Garrard encapsulates it effectively, stating: “….we need better ideas, feelings and values even more urgently than scientific breakthroughs” (23). However, as stated earlier, we do need a scientific and ecological understanding of the current environmental crisis, and this is where the “ecoliterary text” can represent an important function.

I argue that a specific aesthetic text is needed to represent an appropriate vehicle for positive change in environmental discourse and to be an ecopedagogical vehicle for consilience. Fritjof Capra proclaims: “In the coming decades, the survival of humanity will depend on our ecological literacy – our ability to understand the basic principles of ecology and to live accordingly” (201). The form of eco-literature I am interested in are texts that can play a leading role in terms of biophilia, consilience, and the transference of ecopedagogical principles, but that do so in terms of the aforementioned functional effects of literature. Ecoliterary texts need to adhere to the following extended list of ecopedagogical principles. They need to be:

- Scientifically accurate and ecologically credible
- Political yet subtle / non-preaching / non-ranting
- Counterhegemonic: demystifying the normalised and naturalised anthropocentric ideology
- Challenging of consumer capitalism and neoliberalism
- Critical, ethical, creative, inclusive, systemic (Sterling, 2011)
- Interdisciplinary: “shifting hybrid domains” (Wilson, 1998)
- Inclusive of “intuition, imagining, wisdom, spirituality and holism” (Blincoe, 2011)
- Able to critique the foundations of happiness (Morris & Martin, 2011)
- ‘Ruptural aesthetics’ (Chamb, 1985)
- Texts that inform a “human ecological novel”: ‘deep ecological affinity’ / ‘investigation of human causes and responsibilities’ / ‘political remedies’ (Parham, 2011)

Ecoliterary texts need to:

- Re-enchant / Re-invigorate (Latour, 2004; Bauman, 2011)
Develop the ability to ask “What then?” (Orr, 1999) or “What ought to be” (Prinz, 2007; Clark, 2011)
Advocate pro-social behaviour (Hoffman, 1983; Eisenberg, 2000)
Stress “aspects of dialogicity and recurring occasions of negotiation” (Bartosch, 2010)
Enhance the ability to recognise interconnections (Strachan, 2011)
Provide “political strategies for reinventing the world” (Kahn, 2010)

In a nutshell, ecoliterary texts as I have outlined them here have a rather tall order to follow; this is quite ambitious, I realise. But then the ecological crisis we are facing is severe, and if fictional literature is going to represent a tangible and significant difference, it needs to be extremely dynamic. What is important to remember in terms of form is that this scientific content is being disseminated through story, through narrative, (through the dialogue of the characters, for example), and not through mechanistic or reductionist scientific fact. Consequently, the reader is “suspended in disbelief,” but whilst in this state, they are learning valuable scientific information that can lead to alternative biocentric ontologies. This, as I have said, is what is reflected as conscientisation: the reader is awakened to alternative realities, to new ways of thinking, to new understandings of their world; it is the spark that leads them to critical thinking, and provokes them to action. Paraphrasing Val Plumwood, Fiona Becket and Terry Gifford explain that “our ability to transcend the ethical and aesthetic categories and discourses that have contributed to our alienation from our environment is dependant upon an enlargement of our imaginative capacities” (8). This, as well as disseminating scientific and ecological knowledge, is the role of the ecoliterary text.

To conclude, of course there is no empirical data that can clinically calculate how reader response works, and whether a reading of a novel can truly affect our cognition or behaviour and render us more scientifically and environmentally aware. However, many current cognitive scientists, such as Keith Oatley, and many theorists working within the field of literature and emotion are providing a strong case to suggest that literature can impact our consciousness significantly. This, combined with ecotexts focussing on

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4 I do not have the scope here to provide a case study, but for the sake of clarity, I would suggest that texts such as Margaret Atwood’s *Oryx and Crake* (2003) or Barbara Kingsolver’s *Prodigal Summer* (2000) are perfect examples of novels that effectively combine the sciences and humanities and fulfil the above-mentioned criteria of ecoliterary texts. I argue that more of these sorts of “econovels” are needed, as there is a dearth in the field.

biophilia and ecological science can represent the hybridity needed to make a significant impact in terms of consilience and a revival of aesthetics in ecocritical discourse.

As an ecocritic, I look to ecoliterary texts, and their authors, to be what Lawrence Buell calls the “harbingers of contemporary ecoglobalist imagination” (242). Texts rich in consilience educate readers in terms of ecological discourse by inducing readers to feel as well as to think, and it is this imbrication that can fuse the dichotomy between nature and humanity, the human and non-human. This, then, in terms of ecopedagogy, can radically transform our conscious awareness of our place within the ecosystem, and our responsibilities in terms of praxis in protecting our fragile earth. As Glen Love correctly stated in Practical Ecocriticism (2003): “It’s time for humanists and scientists to start talking to each other” (6). Perhaps if Love had been around in Darwin’s day, or writers such as Margaret Atwood or Barbara Kingsolver to re-enchant and re-invigorate readers in terms of emotions, values, ethics, and science, Darwin’s brain and “higher tastes” may not have atrophied to such a calamitous degree, and his moral character may have been strengthened by the bolstering of the emotional part of his nature. I deem that the ecoliterary text has this power, and can be a convincing vehicle for necessary change.

Works Cited


