Decolonisation as future frame for Environmental and Sustainability Education:

Embracing the commons with absence and emergence

Heila Lotz-Sisitka

Rhodes University

Abstract

This chapter considers how engagement with decolonization history, theory and practice may provide an interesting future frame for Environmental and Sustainability Education (ESE). The chapter provides an overview of some of the key dynamics of decolonization thinking that are circulating at present, and considers particularly the *problematique* of absence and emergence. It argues for giving attention not only to critical analysis of colonization concerns (i.e. identification of absence), but also to expansive, emergent theories of learning which we might mobilise in environment and sustainability education (ESE) out of our existing forms of being in order to re-imagine new becomings that are oriented to the common good (i.e. processes of emergence). In situating the argument within wider discourses around education and the common good, the paper argues that decolonisation is a project that concerns us all (not only those in the global South), given the contemporary realities and geopolitics of resource flows, hypercapitalism, colonization by market logic, and the privatisation of the commons.

Introduction

In this chapter I consider how engagement with decolonization history, theory and practice may provide an interesting future frame for Environmental and Sustainability Education (ESE). I propose that decolonisation is an important, if as yet under-explored concept in ESE. Traditionally it refers to the decolonization of land, resources and minds as experienced via oppression during colonization periods in primarily the global South. A full realization of decolonization is yet to emerge in societies of the global South and elsewhere, especially in education and learning systems which are traditionally based on abyssal (exclusionary) thinking and knowledge practices (De Sousa Santos, 2014). Colonisation in contemporary time-space

cannot only be relegated to the history of the colonies, but should include colonization of modern minds by market forces and global capital in all places in the world. By way of example of such forms of colonization, a recent study showed that children younger than 3 years of age, even before they can talk, can recognize a wide range of consumer brands (Mc Allister & Cornwell, 2010). This is not the topic of this chapter, but I raise the point here so as not to relegate what can be learned from the former colonies in decolonization movements to the colonies. Decolonisation is a project that concerns us all, given the contemporary realities and geopolitics of resource flows, hypercapitalism and the privatisation of the commons (Slater, 2004; McDonald and Ruiters, 2005).

There are increasing numbers of thinkers that suggest that there is need for such an enquiry, since it is increasingly apparent that our futures are being sold and securitized, and that the world in which we are living is warming up as a result, with unknown and potentially disastrous consequences for all, especially for those in the global south who have already borne the brunt of one long period of colonization (Fisher and Ponniah, 2001; McDonald and Ruiters, 2005; De Sousa Santos, 2014; Tuck and McKenzie, 2015; Price and Lotz-Sisitka, 2016). In such a world we are becoming (often unknowingly) conditioned to endless policies and practices that apparently seek to tame risk and terror, essentially through the taming of minds and people. However these do little to tame the continuing culture of oppressive 'Othering' (Delphy, 2015; Rosbech, 2016) and the influence of predatory speculative economics that operate in neo-liberal forms of 'looting' (Bond, 2006), effectively amplifying former colonial intrusions and their ongoing deleterious effects (Ferguson, 2006; De Sousa Santos, 2014). Ferguson for example explains that:

> Today, enclaves of mineral-extracting investment in Africa are usually tightly integrated with the head offices of multinational corporations and metropolitan centres but sharply walled off from their own national societies (2006, pg. 36).

What forms of critical, expansive learning might we mobilise in environment and sustainability education (ESE) out of our existing forms of being in order to re-imagine new becomings that are oriented to the common good?

The common good and the commons
It is interesting to note that the concept of the common good (and by implication the commons)

is coming into focus in global educational discourse on 're-thinking education' (UNESCO 2015). In addition to affirming the need to see education *as* a common good, UNESCO (2015) suggests a new purpose for education. The 2015 document (ibid) states that,

> Education must be about learning to live on a planet under pressure. It must be about cultural literacy, on the basis of respect and equal dignity, helping to weave together the social, economic and environmental dimensions of sustainable development (pg. 3).

In doing this, UNESCO suggests a re-orientation of the purpose of education, and goes further to say that education, while traditionally oriented towards enculturation and adaptation, can also be oriented towards transformation. In some ways (if only briefly and via a somewhat contradictory discourse overall), the 2015 UNESCO document begins to propose possibilities for embracing a transformative perspective on education by suggesting that:

> Dominant utilitarian conceptions of education should accede to the expression of other ways of understanding human well-being, and thus, to a focus on the relevance of education as a common good. This implies hearing the silent voices of those who have not yet been heard. The immense wealth that such diversity represents can enlighten us all in our collective quest for well-being. A humanistic perspective is a necessary basis of alternative approaches to education and human well-being (pg. 33).

While interesting for education, especially as the document provides an invitation to educators to consider its propositions for re-orienting the future purpose of education, the 2015 UNESCO document lacks further guidance on what exactly is meant by "the relevance of education as a common good", or the associated implications of the rhetoric around "our collective quest for well-being", and it fails to provide insight into how education systems are to re-think themselves via a process that allows for "hearing the silent voices of those who have not yet been heard" (ibid). At its most radical and relevant edge, one could read this discourse to be synergistic with decolonisation and a re-thinking of education in relation to the concept of the common good, and by association recent perspectives on the relation that exists between the common good and the commons. In the 2015 UNESCO document, this attains some mention via an interest in re-thinking education in ways that also address global climate change.

The commons is a concept that emerged within the frame of political economy that refers to cultural and natural resources that are / were accessible to all members of a society. These include natural materials such as air, water, forests, and more recently, a habitable earth for current and future generations. Since the 1960's there has been ever-expanding social movement agitation in response to the enclosure, degradation and privatisation of these commons. The interest by social movements in the commons relates to the fact that these resources are held in common, and should not be appropriated for private interest as this expands already extensive historical exclusions that arose via colonialism, imperialism and the rise of modern economies. The recent expansion of interest in the commons amongst environment and climate change activist organisations and scientists is related to the increased commodification of air, land and water, with this process of privatization and commodification leaving the poor most vulnerable (McDonald and Ruiters, 2005, Tormey, 2013; Ostrom, 1990). Linking this to the focus of this chapter, and to the point made in the 2015 UNESCO document about "our collective quest for well-being", is the insight that the ongoing extraction and privatization of land, natural resources, air, forests, water, biodiversity and other traditionally 'common' resources has been a key feature of the extractions, appropriations and marginalization that occurred during the long era of the colonial (and, in South Africa, apartheid) periods, a process which has continued and been amplified via various forms of ongoing neo-colonial and neo-liberal extractivism and exploitation (Bond, 2006; Ferguson, 2006; McDonald and Ruiters, 2005; Shiva, 1992, 2005) referred to in the introduction above. Such processes have been widely documented and form the major focus of many progressive environmental and social justice movements in the world today (ibid). As such a reclaiming of the commons, framed also within decolonisation interests, appears to be a key and important focus for ESE today (Lotz-Sisitka, 2016). Interesting in this regard, is a synthesis comment from Nobel Laureate Elinor Ostrom (2010) whose work repositioned economic thinking on the commons away from rational choice theory that dominated the advent of an over-individualised (voluntarist) theory of privatisation and control of common pool resources under colonialism and modernity to a more strongly constituted social theory of emergence, thus:

> Extensive empirical research leads me to argue that instead, a core goal of public policy should be to facilitate the development of institutions that bring out the best in humans. We need to ask how diverse polycentric institutions help or hinder the innovativeness, learning, adapting, trustworthiness, levels of cooperation of participants, and the achievement of more effective, equitable, and sustainable outcomes at multiple scales. (pg. 25)

A short history of colonization, and emerging decolonization discourses

The issues associated with the commons and the extraction, and privatization of commons resources form part of decolonization movements and associated discourses, although at times these come to be separated out from critical social issues, as immediate attention of decolonisation movement activity focuses in on the pain and immediacy of race, poverty and class related concerns. The history of colonization has been widely reported on and analysed (see for example Mamdani 1996, 2003; De Sousa Santos, 2014). It is not the purpose of this chapter to repeat such analysis. In short, some of the main contours of the history of colonization in Africa relate to the way that colonialism presented itself as a civilizing mission, framed and named through the building of modern cities and states, using the force and mechanisms of modernity and Western law to mobilise resources in the interest of the expansion of empire and the colonial states (Mamdani, 2003). In colonized countries, the law was used to give rights to the minority while blatantly disenfranchising the majority, and in Africa, race became the primary category of difference between colonizer and colonized. Mamdani (2003, pg. 42) describes how this had the effect of collapsing all other differences and concerns in its "binary logic" (Mamdani, 2003, pg. 42).

Mamdani (ibid) suggests further that a deep reading of this situation reveals the "legal and political fiction" of the colonial designation of "indigenous" and "non-indigenous", and warns that such bifurcated notions should not be simplistically read as an "historical or cultural reality" (pg. 43). More widely, French feminist Christine Delphy (2015), in her work on '*Separate and Dominate'* argues that the concept of 'Other' has been exacerbated by the Western tradition. She suggests that the idea of 'Other' is a way of naturalizing the oppression of women, black people and gays, and is itself a source of oppression.

Understanding the historical emergence of bifurcation as major strategy for oppression and the silencing of discourses other than one's own or the dominant discourse, creates significant challenges for environment and sustainability educators, firstly to fully grasp the forms of colonial control and their aftermath in terms of a) the bifurcated societies and categories we have been left with, b) how resource flows were – and continue to be - appropriated from peoples' via these strategies; c) how to fully grasp and frame notions of identity and social change in the postcolonial period; and d) how to imagine new intersectional relational practices that are based on reciprocity and which are not further bifurcated by the logic of 'othering' that

emerged via modernity's systems of power and control. Importantly, it calls for careful, critical responses in ESE practice that take full account of emergent forms of nationalism, racism, gender discrimination, ethnicity, and legal, economic and education systems that have come to shape the way in which we consider a common future that is now unfolding in an increasingly complex globalized world order. It also calls for deep thought in terms of what the meaning/s of decolonization are or might be as such thought provides possible principles for guiding the construction of a transformed society, and frames what the foundations of a transformed society might be, and thus also our related ESE thinking and practice.

Some recent discourses on decolonization that are surrounding and being amplified in recent #RhodesMustFall and #FeesMustFall student uprisings in South Africa (REF) which resonate with wider international movements such as #BlackLivesMatter, the international shackdwellers movement (Appadurai, 2014; Gibson, 2011, 2013) and others often affiliated with the World Social Forum's notion of 'Another World is Possible' (Fischer and Ponniah, 2003; De Sousa Santos, 2014), provide some insights into the meaning/s of decolonization as expressed by young people, farmers, the poor and other marginalized groups, associated academics and supporters of the decolonization movement in the present. These include:

An intersectional political commitment to addressing issues of racism, classism, gender violence, poverty and other intersecting societal ills (Collins, 1998; Acker, 2006; Brah and Phoenix, 2013; Mirza, 2013). As Mirza (2013, p. 1) states, "Postcolonial feminist approaches enable us to situate the silent 'spectral' power of colonial times as it appears in the production and reproduction of marginalised, racialised and gendered others in new contemporary times".

An intellectual commitment to addressing abyssal (exclusionary) and biased thinking, captured in contemporary decolonisation critiques of curricula, teaching, and university institutional cultures, effectively seeking to 'decolonise the mind', a process which Ngugi wa Thiong'o (1986, 1993) argued for in the early post-colonial period in Kenya. In his work '*Epistemologies of the South: Justice Against Epistemicide*", De Sousa Santos (2014) argues against what he calls 'abyssal thinking' which, he says "… consists of a system of visible and invisible distinctions, the invisible ones being the foundation of the visible ones … Modern knowledge and modern law represent the most accomplished manifestations of abyssal thinking" (pg. 119). In the case of modern knowledge, he argues that it is premised on the invisibility of popular, lay, plebian, peasant, or indigenous knowledges that cannot be 'fitted" into the ways of knowing of science, philosophy and theology (ibid). From a

perspective of decolonising society via our ESE practices, could giving more attention to these excluded knowledges in our education and learning processes give meaning to the UNESCO statement that there is need to hear "… the silent voices of those who have not yet been heard" as we 're-think' education for the 21st century?

Arguments for wider inclusivity and a redress of urban bias in educational curricula, research and practices; arguing for equal attention to the concerns of rurality so as to address the full meaning of education for the 'public good' (Mgqwashu, 2016).

Experiences of land-based education and associated phenomenological, cultural, embodied, spiritual and social-historical connections; which propose a different onto-epistemic foundation for knowledge and learning than that privileged under modernity and coloniality. Peet and Watts (1996, pg. 38) suggest in relation to this work that "a retrieval of peasant and indigenous discourses on nature, land use, and ecological regulation and management need not romanticize pre-capitalist or non-Western relations between society and nature" but rather constitute them as important forms of knowledge co-creation and learning (see also Kapoor, 2009; O'Donoghue, Shava and Zazu 2013).

A situated, reflexive, agency-oriented discourse that foregrounds the need for emergent responses that pro-actively develop wider ecologies of knowledge, inclusive praxis and new alternatives for framing societies, participation, learning and agency; effectively seeking to balance critical analysis of absences with the practices of emergence relevant to a new society (Belay Ali, 2014, 2016; Mukute, 2010, 2016; Masara 2010; Kachilonda 2015; O'Donoghue, Shava and Zazu 2013, Visvanathan, 2006; Choudhry 2015; Kayira 2015).

Of interest to the framing of this chapter and the focus of this book, is inclusion of the historical effects of control of resource flows, a loss of the commons, and notions of the common good in the framing of decolonization discourses (Martinez-Alier, 2002; 2013). This discourse actively includes *environmental justice and place* as a key feature of intersectional decolonizing transformations in society (see also Tuck & McKenzie, 2015). Such a perspective begins to take on new meaning in the current context of climate change, especially in the southern African region, which has been defined as being highly vulnerable to the impacts of climate change with wide ranging implications for re-thinking curriculum, teaching practice and the role of the university in society (Urquart & Lotz-Sisitka, 2014). Behind this lies a strong discourse on the need to redress 'climate colonialism' which for example notes that "99% of the disease burden from climate change has been occurring in developing countries and 88% of that in children under age 5" (climateandcapitalism.com, 2013). This conceptualization of

decolonization is reflective of the point made by Dussel (1998) that decolonization of society will require a triple focused programme of action that responds to three major intersecting limits:

1) Ecological destruction of the planet based on a conceptualization of nature as an exploitable object,

2) Poverty and inequality based on ongoing exploitation and accumulation of wealth,

3) Narrow rationalities epitomized by colonial and imperialist thinking (Dussel, 1998; Andreotti, 2011).

In some ways critical environmental education research has sought to bring these issues to the fore over time (e.g. Gough & Robottom, 1993; Fien 1993), but in most cases the focus has been on the first two and less on the third point raised by Dussel (1998). There is an interesting emerging body of work[i] that is found in ESE work in Latin America, Canada and southern Africa that is beginning to engage with the third dimension along with the other two (e.g. Leff 2009; Gonzalez Gaudiano 2005; Gonzalez-Gaudiano & Silva, 2015; Kayira, 2015; Tuck & McKenzie, 2015; Shava, 2008; Mokuku 2012; Mukute 2010; Mukute & Lotz-Sisitka, 2012; Price & Lotz-Sisitka, 2016). Through this work, one can see that the vantage point of Dussel (1998) is as relevant to Africa, as it has been found to be in Latin America and other parts of the world such as India where livelihoods and well-being are intimately related to the health of the environment, relational life embedded in environments, and access to natural resource flows. Such relational expressions are found in ancient cultures and in contemporary metaphors and customs amongst many of the world's people, including those in southern Africa (Le Grange, 2012; Kayira, 2015). While Dussel and other decolonization activists such as Shiva and Martinez-Alier draw attention to the significance of including environmental justice and place in decolonization framings (see also Tuck and McKenzie, 2015), they also point to the need for a wider framing on this topic, especially as this pertains to the dominance of the way in which the contemporary market operates, effectively further colonizing resource flows, minds and patterns of behavior.

Most strongly articulated here are emergent forms of anti-capitalist thinking (Fisher and Ponniah; Wall 2010), although viable alternatives to the latter are still to emerge strongly in society. In framing decolonization, a key focus ought also to be the development of alternative economic thinking. Green economics while offering a promising alternative (Wall, 2010) has, as yet, failed to produce the impetus and models of practice necessary for re-orienting the current market system, despite recent large scale international commitment to green economies and societies (ibid). This may be due to the power of the capitalist system to continue various appropriations of green economic thinking, reducing it mainly to ecological modernization

discourses (Nixon, 2011; Hajer, 1996; Peet and Watts, 1996; Wall 2010). Red-green thinking has all but disappeared under the weight of neoliberal forces, and the political left appears to currently lack viable ways of engaging the economic justice question, so central to the ultimate success of decolonization intentions. The well-documented case of the Zapatista movement in Mexico shows that making gains in radical decolonization movements is extremely complex and difficult, as shown by its eventual failure to push through a radical indigenous rights law which would have consolidated the gains of their counter-geopolitics of land distribution and indigenous rights (Slater, 2004).

Embracing the future commons with a commitment to absence and emergence

Despite these difficulties, much is being said about the urgency of the need for more adequate responses to deep seated ills in society, and more movements are arising in response to the intersectional range of concerns that can be clustered under the decolonization banner (outlined above). One of the difficulties that occurs when framing these issues is that it is possible to end up focussing mainly in on the absences i.e. what is not there (De Sousa Santos, 2014; Vandenberghe, 2013). As Bhaskar (2008, pg. 40) has argued, absence is the 'great loosener' as it permits an empirical 'open texture', a 'structural fluidity and interconnectedness' which we need to understand as possibility for environment and sustainability education teaching, research and learning. It seems that there is much potential in a project of producing clearer framings of absence *and* emergence, and developing praxis of how new transformations come into being in as far as this can be described, embracing what Vandenberghe (2013) names 'reconstructive social theory' and what Bhaskar (2008) refers to as 'transformative praxis'. As Achille Mbembe (2001) stated a few years ago, Africa is most well known for its lacks or what it is not, too little is known about what Africa *is* or *can be.*

While there is clearly a strong need for reconstructive social theory and praxis (vandenBergh, 2013), it is also notoriously difficult to 'frame the future' in advance, and the history of such framing shows the dangers of social engineering. However, it might well be possible to instead focus more on framing some of the principles and processes of transformative praxis, and how these might be better supported and expanded, also in and for ESE research and praxis and through this create stronger means of possibility for new alternatives to emerge via varied social processes in diverse contexts. In his decolonization work, De Sousa Santos (2014) frames a clear argument that provides pathways of thinking for environment and sustainability education responses. He suggests the need to *simultaneously embrace a sociology of absence and*

emergence. He explains thus,

> The symbolic enlargement brought about by the sociology of emergences aims to analyse in a given practice, experience, or form of knowledge what in it exists as tendency or possibility. It acts both upon possibilities and capacities. It identifies signals, clues, or traces of future possibilities in whatever exists. Here too the point is to investigate an absence, but while in the sociology of absences what is actively produced as nonexistent is available here and now, albeit silenced, marginalized or disqualified. In the sociology of emergences the absence is an absence of a future possibility as yet not identified and of a capacity not yet fully formed to carry it out. … While sociology of absences expands the realm of social experiences already available, the sociology of emergences expands the realm of possible social experiences. The two sociologies are deeply interrelated (pg. 186).

There are various efforts emerging that are actively putting such practices in place via efforts at reclaiming the commons by social movement organizing and support (e.g. Shiva, 2005; Pithouse, 2013; Gibson, 2011). Strategies for amplification and expansion of such efforts are clearly needed, which in turn requires more careful understandings of new social movements and especially the multi-levelled learning processes embedded in new social movements and actions (e.g. Engeström 1987, 2007; Vandenberghe, 2013; Lotz-Sisitka, Wals, Kronlid & McGarry, 2014). It also involves being engaged in social change processes as stated by Torres (2009) drawing on the work of Paulo Freire,

> Social change cannot be simply articulated as social engineering from the calm environment of the research laboratory. Social change needs to be forged in negotiations, compromise, but also fighting in the political system. It needs to be struggled over in the streets with the social movements; to be conquered in the schools struggling against bureaucratic and authoritarian behavior, defying the growing corporatization of educational institutions, particularly in higher education, and striving to implement substantive rationality through communicative dialogue; and to be achieved even in the cozy and joyful environment of our gatherings with our family and friends. Dialogue and reason cannot take vacations if one pursues the dream of social justice, education, and peace (pg. 88).

Overall, the first period of the postcolony has been strong on identifying absences, with perhaps as yet inadequate descriptions of, and theorizing of the processes of emergence i.e. how a new more inclusive, socially just sustainable society could potentially come into being. Here there also appears to be inadequate or perhaps more accurately an incomplete discussion on the role of education, and environment and sustainability education especially in this process. In this chapter I suggest that a key starting point for such a discussion involves the re-thinking of education, away from models of cultural reproduction only, to models of education and learning that are oriented towards becoming, and forms of societal transformation that are not reproductive of the abyssal experiences constructed via colonial histories and their education systems and processes.

Some educative responses that re-imagine education and provide pathways for emergence

There are many postcolonial / decolonization theorists that offer tools for such emancipatory work. For example, grassroots social movements such as *Abahlali baseMjondolo*[ii] and Fanonian scholars working with them, suggest a form of 'Lived Learning' based on "The idea of a dialectical relationship between socially lived experience and learning within a social movement (which begins as Porto Gonçalves puts it 'from the starting point of people breaking the inertia and moving, i.e., changing place, rejecting the place historically assigned for them'"(Zibechi 2013, 210, cited in Gibson, 2013, 3). Paolo Freire offered a huge transformational educational movement based on the principles of situated learning, critical transformations of consciousness, generativity and dialogue which has had enormous impact on education and learning processes in the global South (Darder, 2015). Arjun Appadurai's (2013) work with shackdwellers in Mumbai in India also offers pathways for re-thinking education and learning, not as cultural reproduction, but as cultural aspiration based on hope, future's possibilities and collective framing of capabilities. Educational psychologist Yrjo Engeström (1987; 2007), and critical realist and emancipatory philosopher Roy Bhaskar (2008) both offer intellectual and process tools for such emancipatory work; Engeström via his post-Vygotskian project of developing the theory of expansive learning and transformative agency (Engeström & Sannino, 2010), and Bhaskar (2008) via his concepts of absence, emergence, transformative praxis and his notion of 'pulses of freedom' (Price and Lotz-Sisitka, 2016). Bhaskar's expressed theory of education indicates a commitment to education as a process of 'unfolding' our full potential (Bhaskar in Scott 2015). Across these works one finds a commitment to generativity, and emergence as principle, to open process dialogical, yet critical, aspirational and emancipatory

principles for education and learning. The collective works provide a roadmap for educators interested in developing more generative, emergent forms of educational theory and praxis, and those that are interested in developing a theory of education that is less about acculturation, and more about aspiration, change, transformation and hope. Collectively these works begin to provide a sociology of education that is attuned to De Sousa Santos' (2014) call for a wider sociology of absence and emergence as critical to the decolonisation process. All of the theorists share a commitment to the realization of alternative possibilities via human action and learning, and thus have much to offer ESE research. To concretise this a bit further, I outline just a few cases of such forms of generative, expansive learning and research as these are emerging in southern African ESE theory and practice[iii]. These all represent various decolonization experiments or smaller cases of transformative praxis, framed within the larger societal change system of interest outlined above.

Emergence of boundary crossing sustainable agricultural expansive learning and praxis that foregrounds cognitive justice and multi-actor dialogue in supportive expansive social learning forums and networks. These learning networks have shown the formation of relational agency in which actors engage in dialogue and solution modeling in order to address contradictions and tensions that are impeding achievement of their shared objectives to improve food security via more ecologically sustainable approaches to agriculture (Mukute, 2010; 2016).

Emergence of change projects in teacher education which show how supportive, reflexive and open processes of learning that are situated in self-defined communities of practice allow for the emergence of new forms of agency in teacher education institutions. Such approaches also re-frame ESD pedagogy and practice as education for the common good. The ESD change project practices show a stronger integration of teaching, research and community engagement in universities. This counters a traditional tendency to see teaching, research and community engagement as separate, often bifurcated functions in universities, thus helping to reframe the traditional structuring of universities and their work (Mandikonza, 2016; Mandikonza and Lotz-Sisitka, 2016).

Emergence of multi-actor expansive learning networks that involve farmers, teachers, college lecturers, local economic development officers, NGOs and other partners in transforming curriculum and praxis in agricultural colleges. Evidence from the formation of

these expansive learning networks show that introduction of new knowledge for the common good (in this case rainwater harvesting and conservation knowledge) into a learning network provides a mechanism for all to begin to collaborate around productive demonstrations which provide a means of learning for all, while also expanding public food security amongst the rural poor. Key to these learning networks is embracing wider ecologies of knowledge (other than that currently contained in the formal college curriculum), which has enabled farmers to learn from college lecturers, and *vice versa* amongst other reciprocal relational learning interactions. It has also enabled the emergence of new forms of agency amongst all (Pesanayi, 2016; Weaver, 2016).

Emergence of agency for collective, community-based land use decision making using counter-hegemonic three dimensional participatory mapping approaches with rural communities. In these processes intergenerational knowledge of changing landscapes and cultural contexts is shared, and possibilities for change and emergence is deliberated and debated in intergenerational contexts to inform collective decision making and agency for change (Belay Ali, 2014; Belay Ali, 2016).

Another example of such ESE research and praxis involves the development of cartographies of civic action amongst youth change drivers in which youth are invited to not only conceptualise but also operationalize a transformative pedagogical practice and visioning of alternative futures as transgressive liberatory pedagogy. These occur at the intersection of a range of youth concerns and emerging capabilities (Kulundu, 2016, this edition). Besides the few examples listed here, are many other examples of ESE theory and practice that are emerging in the global South, such as the work of Vallabh, Lotz-Sisitka, O'Donoghue and Schudel (2016) and Vallabh (this edition) that is seeking to draw out the full potential of citizen science projects and programmes in ways that have the power and potential to expand knowledge in use beyond the limitations of abyssal (exclusionary) forms of epistemic culture (Vallabh et al, 2016, this edition).

Conclusion:
In sharing these short summaries of this type of emerging ESE research and praxis, I end this chapter by suggesting that working to realize such emergent, generative models for education and ESE might well be the core of the project of re-imagining new becomings out of existing being in ESE. I also propose that such forms of ESE, if carefully and reflexively situated and framed, may hold potential for addressing the intersectionalities of the decolonization project, as

is shown in brief in some of the examples above. Much more, however, needs to be done, especially to work our way through the deep seated problems of bifurcation that characterize modern forms of thinking and praxis. As outlined by both Mamdani and Delphy, these were the very instruments of colonialism and colonial rule, and reproducing them through our ESE praxis would seem to be ironic at best, and regressive at worst. Provincialising decolonization discourse to the former colonies would also fail to take into account the rapidly changing geopolitics and new forms of colonial intrusion, such as those influencing all our lives as discourses of 'Other' continue unabated, and as our daily lives are shaped by market logic, brand recognition and other forms of bifurcation. De Sousa Santos (2014) argues for rethinking social life using the concept of 'radical co-presence' in which we can being to bring into focus the vast set of discarded experiences that have been made invisible both as agencies and as agents in the colonial period. In considering the UNESCO (2015) project of re-thinking education, the importance of hearing those that have been historically silenced and marginalised would appear to be vital to the project of more socially just, sustainable societies, characterised by a renewed commitment to the common good.

REFERENCES

Acker, J. (2006). Inequality regimes gender, class, and race in organizations. *Gender & society*, *20*(4), 441-464.

Andreotti, V. (2011). *Actionable postcolonial theory in education.* New York: Palgrave Macmillan.

Appadurai, A. 2014. *The Future as Cultural Fact. Essays on the Global Condition.* London: Verso.

Bhaskar, R. (2008). *Dialectic: The pulse of freedom*. New York: Verso.

Brah, A., & Phoenix, A. (2013). Ain't IA Woman? Revisiting Intersectionality. *Journal of International Women's Studies*, *5*(3), 75-86.

Belay Ali, M. (2014). Participatory mapping for intergenerational learning and resilience in Ethiopia. In Corcoran, Peter Blaze and Brandon P. Hollingshead (Eds.). *Intergenerational Learning and Transformative Leadership for Sustainable Futures*. Wageningen, the Netherlands: Wageningen Academic Publishers.

Belay Ali, M. (2016). Using critical realism to explain change in the context of participatory mapping and resilience. In L. Price & H. Lotz-Sisitka (Eds). *Critical Realism, Environmental Learning and Social-Ecological Change.* London: Routledge.

Bond, P. (2006). *Looting Africa: The economics of exploitation*. Zed books.

Choudry, A. (2015). *Learning Activism: The intellectual life of contemporary social movements.* University of Toronto Press. Toronto.

Collins, P. H. (1998). Intersections of race, class, gender, and nation: Some implications for Black family studies. *Journal of Comparative Family Studies*, 27-36.

Climateandcapitalism.com. 2013. http://climateandcapitalism.com/2013/05/23/climate-colonialism-illustrated/ Accessed 27/3/2016.

Darder, A. (2015). *Freire and Education.* London: Routledge.

Delphy, C. 2015. *Separate and Dominate: Feminism and Racism after the War on Terror*, trans. David Broder, Verso, London and New York. 192 pp.

De Sousa Santos, B. (2009 [2014]). *Epistemilogicas do Sul.* Coimbra: Almendina [Translated into English as 'Epistemologies of the South - Justice Against Epistemicide']. London: Verso.

Dussel, E. (1998). Beyond Eurocentrism: The world-system and the limits of modernity. In F. Jameson & M. Myoshi (Eds.), *The cultures of globalization* (pp. 3-31). Durham, N.C: Duke University Press.

Engeström, Y. (1987). *Learning by expanding: An activity theoretical approach to developmental research*. Helsinki: Orienta-Konsultit.

Engestrom, Y. (2007). Enriching the theory of expansive learning; Lessons from journeys towards coconfiguration. *Mind, Culture and Activity,* 14 (1-2), 23-39.

Engeström, Y., & Sannino, A. (2010). Studies of expansive learning: Foundations, findings and future challenges. *Educational Research Review.* doi:10.1016/j.edurv.200212.002

Fanon, F. (1967). *Black Skin, White Masks* (translated by Charles Lam Markmann). New York: Grove Press.

Ferguson, J. (2006). *Global shadows: Africa in the neoliberal world order*. Duke University Press.

Fien, J., 1993. *Education for the Environment. Critical curriculum theorizing and environmental education*, Geelong, Victoria: Deakin Univeristy Press.

Fischer, W & Pannier, T. (Eds). 2003. *Another World is Possible. Popular Alternatives to Globalisation at the World Social Forum*. Nova Scotia: Fernwood Publishing.

Freire, P. (1970). *Pedagogy of the oppressed*. New York: Herder and Herder.

Gibson, N. (2011). Fanonian Practices in South Africa. From Steve Biko to Abahlali baseMjondolo. Durban. PalgraveMacmillan/University of Kwazulu Natal Press.

Gibson, N. (2013) Finding Fanon, looking for second liberations. Paper presented at the Algiers conference on Fanon and Africa, June 2013. www.churchland.org.za Accessed May 2016.

Gonzalez-Gaudiano, E. (2005). Education for sustainable development. *Policy Futures in Education,* 3 (3), 243-250.

Gonzalez-Gaudiano, E, & Silva, E. (2015), Education: A Road to Nowhere or a Path to a More Sustainable Future? A Southern Perspective, In David Selby, Fumiyo Kagawa. *Sustainability Frontiers: Critical and Transformative Voices from the Borderlands of Sustainability Education*. Barbara Budrich Publishers. Pg. 43-58.

Gough, G., & Robottom, I. (1993). Towards a socially critical environmental education: Water quality studies in a coastal school. *Journal of Curriculum Studies, (25)4*, 301-316.

Hajer, M. (1996). *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process*. Oxford: Clarendon.

Kachilonda, D. D. K. (2015). Investigating and expanding learning in co-management of fisheries resources to inform extension training, Unpublished PhD thesis, Education Department, Rhodes University.

Kapoor, D. (2009). Education, decolonization and development: Perspectives from Asia, Africa and the Americas, in D. Kapoor (2009) (Ed.), *Education, decolonization and development: Perspectives from Asia, Africa and the Americas*. Rotterdam: Sense Publishers.

Kayira, J. (2015). (Re) creating spaces for uMunthu: postcolonial theory and environmental education in southern Africa. *Environmental Education Research*, *21*(1), 106-128.

Leff, E. (2009). *Latin American environmental thought*. Paper presented at the 6th Latin American Congress of Environmental Education. San Clemente de Tuyu, Argentina, September 19, 2009.

Le Grange, L. L. (2012). Ubuntu, ukama, environment and moral education. *Journal of moral education*, *41*(3), 329-340.

Lotz-Sisitka, H., Wals, A. E., Kronlid, D., & McGarry, D. (2015). Transformative, transgressive social learning: rethinking higher education pedagogy in times of systemic global dysfunction. *Current Opinion in Environmental Sustainability*, *16*, 73-80.

Lotz-Sisitka, H. (2016). Education and the Common Good. In Jickling, B. & Stirling, S. *Post-Sustainability and Environmental Education: Remaking Education for the Future*. Pivot Press.

Mamdani, M. (1996). *Citizen and Subject: Contemporary Africa and the Legacy of Late Colonialism.* Princeton, NJ: Princeton University Press.

Mamdani, M. (2003). 'A Brief History of Genocide'. *Kwani? 01*: 38-46. The Creative Printhouse Ltd.: Nairobi, Kenya.

Mbembe, A. (2001). On the postcolony: Studies on the history of society and culture. *Los Angeles and Berkeley: University of California*.

McAlistair, A. and Cornwell, B. (2010). Children's Brand Symbolism Understanding: Links to Theory of Mind and Executive Functioning. *Psychology & Marketing*, Vol. 27(3): 203–228 (March 2010) DOI: 10.1002/mar.20328

McDonald, D. A., and Ruiters, G. (2005). *The age of commodity: Water privatization in Southern Africa*. Earthscan.

Mgqwashu, E. (2016). Education can't be for 'the public good' if universities ignore rural life. https://theconversation.com/education-cant-be-for-the-public-good-if-universities-ignore-rural-life-56214, March 16, 2016. Accessed May 2016.

Mokuku, T. (*2012). Lehae-La-Rona: Epistemological interrogations to broaden our conception of environment and sustainability. Canadian Journal of Environmental Education, 17, 159-172.*

Mukute, M. (2010). Exploring and Expanding Learning in Sustainable Agricultural Practices in Southern Africa. *Unpublished draft PhD, Rhodes University, Grahamstown, South Africa*.

Mukute, M. (2016). Dialectical critical realism and cultural historical activity theory (CHAT): exploring and expanding learning processes in sustainable agriculture workplace contexts. In *Critical Realism, Environmental Learning and Social-Ecological Change.* London: Routledge. Edited by Price L and Lotz-Sisitka H.B. 2016: 190-211.

Mukute, M., and Lotz-Sisitka, H. (2012). Working with cultural-historical activity theory and critical realism to investigate and expand farmer learning in Southern Africa. *Mind, Culture, and Activity*, *19*(4), 342-367.

Masara, C. (2010). Social learning processes and nature-culture relations of commercial beekeeping practices as small and medium enterprise development in Zimbabwe. *Southern African Journal of Environmental Education* , 27, 6-20.

Mirza, H. S. (2009). Plotting a history: Black and postcolonial feminisms in 'new times'. *Race Ethnicity and Education*, *12*(1), 1-10.

Martinez-Alier, J. (2002). *The environmentalism of the poor: A study of ecological conflicts and valuation*. Cheltenham: Edward Elgar Publishing.

Martínez-Alier, J. (2012). Environmental justice and economic degrowth: An alliance between two movements. *Capitalism Nature Socialism*, *23*(1), 51-73.

Mandikonza, C. (2016). Exploring Change-Oriented Learning, Competencies and Agency in a Regional Teacher Professional Development Programme's Change Projects. Unpublished PhD thesis, Rhodes University, South Africa.

Mandikonza, C. and Lotz-Sisitka, H. 2016. Emergence of environment and sustainability education (ESE) in teacher education contexts in southern Africa: A common good concern. *Educational Research for Social Change* (ERSC), 5 (1), 107-130

Neocosmos, M. (2012). Are those-who-do-not-count capable of reason? Thinking political subjectivity in the (neo-) colonial world and the limits of history. *Journal of Asian and African Studies, 47*, 530. DOI: 10.1177/0021909612452701

Neocosmos, M. (2015). *Thinking African politics in an era of increasing violence*. Paper presented at UHURU Seminar, Rhodes University,15 April 2015.

Nixon, R. (2011). *Slow violence and the environmentalism of the poor.* Cambridge, Mass: Harvard University Press.

Peet, R and Watts, M. (Eds) (1996). *Liberation Ecologies: Environment, Development, Social Movements.* New York: Routledge.

Paraskeva, J. (2011). *Conflicts in curriculum theory. Challenging hegemonic epistemologies.* New York: Palgrave MacMillan.

Pesanayi, T. (2016). Exploring contradictions and absences in mobilizing 'learning as process' for sustainable agricultural practices. In *Critical Realism, Environmental Learning and Social-Ecological Change.* London: Routledge. Edited by Price L and Lotz-Sisitka H.B. 2016: 230-253.

Pithouse, R. 2014. An Urban Commons? Notes from South Africa. *Community Development Journal,* 49 (suppl 1): i31-i43. doi: 10.1093/cdj/bsu013

Price, L. and Lotz-Sisitka, H. (Eds) (2016). *Critical Realism, Environmental Learning and Social-ecological Change.* London: Routledge*.*

Rosbech, M. (2016). 'Mediate and aggregate'. A review of Christine Delphy's 'Separate and Dominate: Feminism and Racism after the War on Terror. *Radical Philosophy* 196 (Mar/Apr 2016), 48-50.

Shava, S. (2008). Indigenous knowledges: A genealogy of representations and applications in developing contexts of environmental education and development in Southern Africa. Unpublished Doctor of Philosophy study, Rhodes University, Grahamstown.

Scott, D. with Bhaskar, R. (2015). *Roy Bhaskar. A theory of education.* Springer.

Shiva, V. 1992. "The seed and the earth: women, ecology and biotechnology," *The Ecologist* 22, 1:4–8.

Shiva, V. (2005). *Earth Democracy; Justice, Sustainability, and Peace.* South End Press, ISBN 0-89608-745-X

Slater, D. (2004). *Geopolitics and the Post-colonial. Rethinking North-South relations*. Malden and Oxford: Blackwell Publishing.

Tormey, S. (2013). *Anti-Capitalism.* London: Oneworld Publishers.

Torres, C. A. (2009). *Globalizations and Education: Collected Essays on Class, Race, Gender, and the State*. Teachers College Press. 1234 Amsterdam Avenue, New York, NY 10027.

O'Donoghue, R., Shava, S., & Zazu, C. (2013). *African heritage knowledge in the context of social innovation. Learning contributions of the Regional Centres of Expertise on Education for Sustainable Development.* Tokyo: UNU Institute of Advanced Studies.

Ostrom, E. (1990). *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge, UK: Cambridge University Press.

Ostrom, E. (2010). "Beyond markets and states: polycentric governance of complex economic systems". *American Economic Review* (American Economic Association) 100 (3): 641–672. doi:10.1257/aer.100.3.641

Urquhart, P., Lotz-Sisitka, H.B., Kruger, B. and Naudé, J., 2014. *SARUA climate change counts mapping study, Vol. 1 knowledge co-production framework,* Johannesburg: SARUA.

UNESCO. (2015a). *Rethinking education for the common good*. Retrieved August 12, 2015 from http://unesdoc.unesco.org/images/0023/002325/232555e.pdf

Vallabh, P., Lotz-Sisitka, H., O'Donoghue, R., and Schudel I. (2016). Mapping epistemic cultures and learning potential of participants in citizen science projects. *Conservation Biology,* DOI: 10.1111/cobi.12701

Weaver, K. 2016. Exploring the course-led development of a learning network as a community of practice around a shared interest of rainwater harvesting and conservation agricultural practices: A case study in the Amathole District in the Eastern Cape, South Africa. Unpublished Masters in Education thesis, Rhodes University, South Africa.

Vandenberghe, F. (2013). *What's Critical about Critical realism? Essays in Reconstructive Social Theory.* London: Routledge.

Visvanathan, S. (2006). Alternative science. *Theory, Culture and Society, 23*, 164-169.

Wall, D. (2010). *The No-Nonsense Guide to Green Politics.* Oxford. New Internationalist Publications.

W'Thiongo, N. (1986). *Decolonising the mind: The politics of language in African literature.* London: James Currey.

W'Thiongo, N. (1993). *Moving the centre: The struggle for cultural freedoms.* London: Heinemann.

---

[i] This is not an exhaustive review of these emergent exceptions. This would need to be the subject of a more comprehensive review.

[ii] This translates as "residents of the shacks" (Gibson, 2013 pg. 2).

[iii] These examples are taken from the Rhodes University Environmental Learning Research Centre programme, and represent only a few of the works that are beginning to reflect this orientation. Some of the studies have been recently published in a book on "*Critical Realism, Environmental Learning and Social-Ecological Change*", edited by the author and Leigh Price (Price and Lotz-Sisitka, 2016).