Chapter 38 Sustainable Development

(published in The Routledge Companion to Education, J. Arthur & A. Peterson (eds.), Routledge, 2012, pp. 362-371

John Huckle

University of York

> *No single thinker, party or school of thought offers a complete answer, or anything like it. Answers will have to be hammered out in open-minded dialogue, between all those who accept that tinkering is not enough, across lines of party and creed. The need, in fact, is for a realignment of the mind, socialist in economics and republican in politics. In such a realignment the Green movement must surely have a central place, along with radicals and dissenters from all parties and none*. (Marquand, 2010).

In the wake of the third great capitalist crisis of modern times, David Marquand joined other commentators to suggest that the neoliberal paradigm that has dominated policy making in much of the world in recent decades, not least in institutions of global governance, had failed after proving itself monstrously unjust and unsustainable. While mainstream politicians sought a return to a modified version of business as usual, radicals predicted that such measures would fail to revive the profits system (Shutt, 2010). They urged a realignment of minds as a first step towards more rational, sustainable, and political acceptable forms of political economy.

This chapter argues that education has a key role to play in such a realignment of minds. It should engage learners in open-minded dialogue about those values, forms of political economy, and models of democracy and citizenship, that may allow us to live more sustainably with one another and the rest of nature. Such dialogue should consider the merits of greener forms of socialism, alongside those of greener forms of capitalism, and should prompt reflection and action on existing and emergent models of democracy and citizenship.

Unsustainable development

The global economy that underpins all our lives depends on finding profitable sources of investment for ever greater quantities of capital. This requires resource intensive economic growth that yields profits for companies, tax revenues for governments, and rising standards of living for the majority of citizens. All have an interest in an accelerating treadmill of production and consumption, but this periodically comes up against limits when it is impossible to sell all that is produced at a profit and productive capacity has to be scrapped. The speculative boom that preceded the current crisis was an attempt to prevent the treadmill slowing. The de-regulation and liberalisation of the financial sector created housing, credit and asset bubbles to absorb excess capital, but when these burst many assets proved worthless (financial crisis), sources of credit dried up (credit crisis), and many countries went into recession (Gamble, 2009, Harvey 2010).

While recurring crises mean that current forms of capitalist development are not economically sustainable or able to continue in a stable state indefinitely, they are also, to varying extents, ecologically, socially, politically, culturally, personally, and morally unsustainable. They degrade the ecological resources and services on which they depend; fail to meet everyone's social needs; foster corrupt politicians and passive citizens; erode local knowledge and cultural diversity; damage people's physical and mental health; and undermine those values that underpin the realisation of human rights and democracy. This argument is developed by, amongst many others, Myers et al (2005) who provide an overview of the planet's problems and prospects; Kovel (2007) who links ecological crisis to capitalism and its domination of nature; Watts (2010) who focuses on the stark choices currently facing China that, he suggests, will affect us all; and Barber (2007) who explores 'how markets corrupt children, infantalize adults, and swallow citizens whole'.

Sustainable development

Pressure for more sustainable forms of development grew out of social movements, concerned about damage to the bio-physical environment and the extent of world poverty, originating in the 1960s. Early tensions between these movements (development is needed to lift people out of poverty yet it damages the environment) were addressed by the World Commission on the Environment and Development in the 1980s. It offered a definition of sustainable development as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (WCED, 1987, p.43). Subsequent UN conferences on the environment and development, termed Earth Summits, in 1992 and 2002 led to related declarations and conventions, on such issues as biodiversity and climate change, together with action plans at international, national and local levels. In an era of neoliberalism existing forms of global governance were unable to deliver what was essentially a socially democratic agenda (Park *et al*., 2008), but with the onset of the financial crisis it regained attention when there was widespread advocacy of green new deals (UNEP, 2009).

Sustainable development is contested with competing discourses providing the vocabularies and conceptual frameworks that condition the different ways in which people and institutions understand and act on issues of the environment and development. These discourses may act ideologically to explain away apparent contradictions and hide problems in society making solutions more difficult to obtain; function hegemonically to gain consent for particular positions of power; and/or operate as 'regimes of truth' or rules that govern what can be said and what must remain unsaid, who can speak with authority and who must listen (Walsh, 2009). While it grossly simplifies an array of relevant discourses (Dryzak, 1997) and ignores others, and is less relevant in many parts of the world than it is in the UK, Table One summarizes the key divide. This is between reformists and radicals: between those seeking the greening of capitalism and those seeking the greening of socialism.

Table One Two discourses of sustainable development

Sustainable development as the greening of capitalism	**Sustainable development as the greening of socialism**
Continued capital accumulation requires greater attention to environmental protection and social justice.	Due to technological change the capitalist treadmill can no longer provide sufficient sources of capital investment or worthwhile jobs for all. It should be replaced with a socialist economy.
Doing more with less (ecological modernisation) is the key to new green enterprises. Efficiency.	Co-ordinated and participatory economic planning to meet social needs is the key to development within ecological limits. Sufficiency.
It is often worth sacrificing critical ecological capital (rare species and habitats) for long term economic and social gain (weak sustainability).	It is never worth sacrificing critical ecological capital (strong sustainability).
Favours market instruments to cut pollution and conserve the environment rather than regulation.	Favours co-ordinated planning and regulation alongside market instruments.
Encourages sustainable consumption.	Meaningful work for all and shorter working hours provide time for forms of self development that reduce the attractions of consumerism.
Key roles for experts and expert knowledge	Key roles for local people and local knowledge.
Favours representative forms of democracy and passive citizenship.	Provides work and a social wage for all in return for active citizenship.
Promotes global welfare through institutional reform and redistribution.	Provides global welfare through redistribution and new forms of global governance and democracy.
Values are strongly anthropocentric and technocentric.	Values are weakly anthropocentric and ecocentric.
Supported by mainstream liberals and social democrats.	Supported by greens, green socialists, and anti-capitalists.
Rogers *et al*., 2008; Turner, 2001	Dickenson, 2003; Little, 1998

Education for sustainable development (ESD)

ESD emerged in the 1990s, largely shaped by the discourses and practitioners of environmental education and development education. By the start of the UN Decade of ESD (DESD) in 2005 it had a well developed theory and practice with innumerable texts and articles, pedagogic approaches, toolkits, curriculum resources, and courses for teachers (Huckle, 2005). A review published as a result of the DESD monitoring and evaluation process (Wals, 2009) suggests that since ESD is being developed around the world in ways that are locally relevant and culturally appropriate, it is not necessary to seek consensus over its meaning. Nevertheless analysis of definitions shows that the following keywords appear frequently: creation of awareness; local and global vision; responsibility; learning to change; participation; lifelong learning; critical thinking; systemic approach and understanding complexity; decision-making; interdisciplinarity; problem-solving; and satisfying the needs of the present without compromising future generations.

The review suggests that there is a greater consensus over the following key principles covering the scope, purpose and practice of ESD:

- A transformative and reflective process that seeks to integrate values and perceptions of sustainability into not only education systems but one's everyday personal and professional life;
- A means of empowering people with new knowledge and skills to help resolve common issues that challenge global society's collective life now and in the future;
- A holistic approach to achieve economic and social justice and respect for all life;
- A means to improve the quality of basic education, to reorient existing educational programmes and to raise awareness (Wals, 2009, p. 26).

Such principles can clearly be applied and implemented in different ways since ESD reflects both the politics of sustainable development and that of education. Much mainstream ESD serves as a hegemonic form of educational discourse, supporting the greening of capitalism, and dealing uncritically with issues relating to the environment and development. Selby and Kagawa (2010) suggest that neglect of politics and a readiness to take on increasingly instrumentalist purposes means that impetus in the field has been conceded to the neoliberal ideology now tacitly embedded in international agendas. Mainstream ESD thus uncritically embraces economic growth, globalisation and consumerism; an instrumentalist and utilitarian view of nature; the skills agenda in education; and via targets and indicators, a preoccupation with the tangibles of standardisation and measurement.

Sustainable schools

The greening of schools, colleges and universities is a key element of ESD (Terry, 2008, Corcoran and Wals, 2004) and the UK Labour Government's strategy for sustainable schools provides an example of how mainstream ESD discourse functions ideologically and hegemonically. It aimed for all schools to become models of sustainable development by 2020 'guided by the principle of care: for oneself, for each other (across cultures, distances and time) and for the environment (far and near)' (DfES, 2006, p. 2). This principle is to shape integrated efforts to address eight 'doorways' to sustainability across the curriculum (teaching and learning), campus (values and ways of working) and community (wider

information and partnerships). These include food and drink; travel and traffic; buildings and grounds; inclusion and participation; and local well-being.

While the strategy provides opportunities for teachers and pupils to reflect and act on different discourses or approaches to sustainability, there is no encouragement to do this in the related guidance. This urges teachers to use the curriculum to cultivate the knowledge, values and skills needed to address the 'doorways' but there is no attempt to expand on these learning outcomes and the illustrative case studies suggest that sustainable development is simply a matter of pupils, schools and communities developing the 'right' attitudes and behaviours and so becoming more caring green consumers and citizens. The strategy functions ideologically by concealing contradictions in Government policy for at the same time as it was promoting sustainable schools, it was continuing to introduce greater competition, individualism and choice into education so eroding the principle of care and part closing most of the doorways. Greater choice for those parents able to exercise choice of school does, for example, part close the doorway of travel and traffic as journeys to school lengthen.

Values and sustainability as a frame of mind

Viewing schooling, or nature, instrumentally as part of a wider policy to promote sustainable development is an indication of the extent to which the market and state have encouraged us to accept what is expedient, profitable, feasible or possible, rather than what is right. This leads the philosopher Michael Bonnett (2004) to suggest that sustainability should not be fostered as an aspect of policy (as in the example of sustainable schools above) but as a frame of mind that is alive to relationships within and between bio-physical and social systems that allow their mutual development to take place in sustainable ways. ESD requires teachers and learners to be open and engaged with the complexity and meaning of things in the manner of great art or literature; attuned to harmony and discord in the world via a heightened sense of attachment; and capable of viewing nature in ways that are essentially poetic and non-manipulative. The kind of knowledge that learners require will not be exclusively or even predominantly scientific, for the natural and social sciences need to be set in a broader context provided by the arts and humanities. These can encourage learners to recognise the aesthetic, existence and spiritual values of nature alongside its ecological, scientific and economic values. They can express the virtue of sufficiency over excess and of sustaining things not in order to have something in hand for the future, but in order to let things be true to themselves, unalienated from their own essence and development.

The Earth Charter and Ecopedagogy

A further challenge to mainstream ESD as policy is offered by the Earth Charter and ecopedagogy. At the Earth Summit in 1992 an attempt was made to draw up a statement about the interrelationships between humanity and the Earth that would address the environmental concerns of education once and for all in both ethical and ecological (as opposed to technocratic and instrumentalist) terms. The resulting Earth Charter, launched in 2000, offers sixteen principles for building a global society based on respect for nature, universal human rights, economic justice, and a culture of peace. It was hoped that the 2002 Earth Summit would adopt and endorse this 'holistic, pointedly socialist in spirit, and non-anthropocentric' charter (Kahn, 2008, p. 7), but pressure from US delegates and others meant

that this did not happen. Nevertheless the Earth Charter Initiative continues to prompt significant ESD initiatives (see Corcoran, 2005, and the Earth Charter website).

In Brazil the principles in the Earth Charter were merged with a future orientated ecological politics, and the critical pedagogy of Paulo Freire, to create ecopedagogy (Gadotti, 2008) that seeks to develop three complementary forms of ecoliteracy throughout society. Technical/functional ecoliteracy involves understanding the basic science of the bio-physical world as far as it is relevant to social life; knowing how societies can affect ecological systems; and appreciating the potential and limitations of a community's location in place. Cultural ecoliteracy involves understanding the different epistemological relationships to nature found in diverse cultures; knowing why cultures centrally predicated upon Western individualism tend to produce ecological crisis through pervasive homogenization, monetization and the privatization of human expression (Bowers, 2007); and valuing indigenous and traditional knowledge that allows communities to live in sustainable ways. Critical ecoliteracy, after Freire, involves understanding sustainable development in the ways outlined in the first part of this chapter; recognizing the role of ideology in shaping people's understanding of such concepts as those of nature, development, democracy and sustainability; and acknowledging the role of radical workers' and citizens' movements in realising forms of political economy that reflect Earth Charter principles. Ecopedagogy is essentially a movement of the global South that challenges the mainstream ESD orthodoxies of the global North.

Knowledge and curriculum integration

The composite nature of ecopedagogy reminds us that ESD will inevitably be interdisciplinary combining academic knowledge from the natural and social sciences, the arts and humanities, with people's everyday knowledge. Dickens (2006) suggests that academic divisions of labour, or the separation of knowledge into specialist subjects, serve to alienate people from nature by denying them a comprehensive understanding of how their own natures and the nature that surrounds them are socially constructed in more or less sustainable ways. He offers critical realism as a foundational philosophy for ESD that can hold relevant knowledge together and provide insights into how social systems should evolve alongside bio-physical systems. It can incorporate dialectical materialism, the 'new' science of complexity, critical theory, systems thinking and postmodernism, while avoiding the idealism and moral relativism inherent in some postmodern ideas. Forsyth (2003) and Huckle (2004) have examined its potential for curriculum integration in higher education.

Others offer a more idealist approach to curriculum integration by arguing that ESD should promote relational or connected thinking that moves beyond such modernist assumptions as reductionism, analysis, and determinism by emphasising holism, synthesis, and uncertainty or the tolerance of ambiguity. Sterling (2001) outlines a new educational paradigm underpinned by such an ecological worldview and considers its radical implications for the organisation of educational institutions and the learning that takes place within them. His thinking influences several of the contributors to *The Handbook of Sustainability Literacy* (Stibbe, 2010) in which contributors from diverse disciplines (for example literature, business studies, climatology, and engineering) consider the 21C skills that people need in challenging times and how institutions of higher education can best provide these. Webster (2007) also regards an ecological worldview as the best foundation for ESD and has written classroom activities

which explore how economy and society can ‘go with the flow of nature’ as revealed by complex systems science (Webster and Johnson, 2009).

Democracy and citizenship education

Democracy is the means by which citizens call power to account; agree ways of regulating relations between people, and between people and the rest of nature; and so realize their interests in sustainability. Sustainability needs democracy to expose complex issues to the widest possible scrutiny and debate; give government real support and power to regulate corporations and markets; and revitalise interest in politics and trust in politicians. Unfortunately the classical concept of democracy which provides citizens with continually expanding opportunities to participate in public life and bring economic, political and social institutions under popular control, has largely replaced by a contemporary concept which leaves decisions to a political elite and renders citizens essentially passive. At the same time a democratic concept of education which seeks to prepare young people to participate in social life has been largely replaced by a vocational concept that equips them as compliant workers and consumers (Carr and Hartnett, 1996).

ESD should not only examine such developments but should link with citizenship education to allow learners to reflect and act on existing and emergent forms of environmental, ecological and global citizenship (Huckle, 2008). While environmental citizenship involves claiming environmental rights against the state in the public sphere, ecological citizenship involves the exercise of ecologically related responsibilities, rooted in justice, in both the public and private spheres (Dobson, 2003). Global citizenship involves the exercise of rights and responsibilities in all spheres of one’s life (economic, political and cultural) that impact at all scales from the local to the global (Monbiot, 2003).

Learning as sustainable development

Education for democracy and citizenship brings us back to issues of discourse, ideology, and hegemony. Those practitioners of ESD working in the tradition of critical education claim that it is possible to engage in discourse analysis and educate for democracy and citizenship, without indoctrinating learners with the ideas of the green movement or green socialism. After outlining three approaches to sustainable development, learning, and change, Scott and Gough (2003) disagree. In their view both mainstream and critical ESD are too ready to assume we have the knowledge and tools for the transition to sustainable development and to discount the uncertainty and complexity that characterise the contemporary world. Learning as sustainable development should be an open-ended process, building the capacity to think critically about (and beyond) expert knowledge enshrined in conventional wisdoms. It is for readers to explore the ways in which Scott and Gough’s notion of critical thinking differs from that of espoused by critical educators, perhaps by using resources on the Open Spaces for Dialogue and Enquiry website (OSDE, 2010).

It is in the sphere of informal, community-based, and lifelong education that the theory and practice of social learning as sustainable development have made most progress. Blewitt (2006) explores the possibilities for such learning in everyday settings, while Wals (2007) provides case studies from around the world.

The Future

An understanding of the potential of ESD to shape the future can be gained by considering Harvey's co-evolutionary theory of social change (Harvey, 2010). He argues that the development of capitalist societies over time takes place as capital moves through seven inter-related activity spheres in search or profit: technologies and organisational forms; social relations; institutional and administrative arrangements; production and labour processes; relations to nature; reproduction of daily life and of the species; and mental conceptions of the world. Each sphere evolves in dynamic interaction with others, none is dominant or independent, and each is subject to perpetual renewal and transformation. Tensions and contradictions between the spheres, at a particular place and time, allow us to say something about the likely future social order but all change is contingent rather than determinant.

Education plays a role in the contested reproduction of capitalist societies and their activity spheres. This chapter has argued for forms of ESD that question the dynamics of capitalism and examine alternative ways of carrying out the activities needed to sustain life. Such education should draw on the experience of movements seeking more sustainable forms of development throughout the world. These contain both reformist and radical elements and include non-governmental organisations; grassroots organisations; organised labour and left/green political parties; movements resisting dispossession via privatisation and the erosion of social services; and movements seeking emancipation around issues of identity (Kingsnorth, 2003). Such concepts as sustainability as a frame of mind; critical realism; eco-pedagogy; and education for ecological and global citizenship, allow ESD to explore the values, ideas, and actions of these movements in ways that can readily be defended against critics, many of whom would confine ESD to outlining and justifying the greening of capitalism.

The latest crisis of capitalism has not been resolved. As austerity measures are introduced in many parts of the world to address economic debt and enable a return to business as usual, the costs are likely to fall disproportionately on the poor and the environments that sustain them. In these circumstances educators who question prevailing mental conceptions of the world and examine movements seeking alternatives are vital to the realignment that David Marquand and others seek.

Questions for Further Investigation

1. What evidence would you need to support or dismiss the claim that current forms of development are unsustainable (see last paragraph page 1)? In what ways do current forms of education sustain an unsustainable society?
2. Does ESD necessitate the re-design of curricula, teaching and learning, and indeed the way an entire educational institution operates, or merely minor adjustments to existing arrangements?
3. Which of the following has the strongest claim to lie at the heart of ESD: ecological education; education in the humanities; or education for citizenship?

Suggested Further Reading

Winter (2007) provides an analysis of policy documents relating to ESD in English secondary schools that supports the arguments in this chapter.

Symons (2008) reviews research on practice, barriers and enablers of ESD in schools in England, while Scott (2009) argues that school effectiveness in this area needs to judged on

what young people are learning rather than on, say, the amount of energy they have saved or waste they have recycled. (Further summaries of research on ESD at http://naaeeresearch.wordpress.com/)

Jackson (2009) and Shutt (2010) prompt consideration of the role of education in moving society beyond growth and the profits system.

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