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Think Piece
From the Push of Fear, to the Pull of Hope: Learning by design

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One of the benefits of getting older is gaining an overview of things. Over time, you obtain a clearer standpoint from which to view trends, patterns and changes. All too quickly, you also find yourself changing, from a young advocate, passionate about environmental education and keen to learn, to one of the old guard, still committed but possibly a bit wiser about the possibilities of and barriers to change.

In my study at home, and immediately visible from my desk, are shelves full of reports, books, manuals which I've collected over a 30-year period. I ought to throw away – sorry, recycle – more than I do, but I've always been a bit of an archivist. It's fascinating to look back at what we were saying 10, 20, 30 and more years ago. And I wonder how much has really changed, and how deeply we are imbued with and seduced by the Western idea of intellectual progress, so that 'old ideas' must by their nature, be less relevant, less insightful than 'new ideas'.

One of the books on my shelf I sometimes to refer to when I'm giving talks is called *Teaching for Survival – A Handbook for Environmental Education* by Mark Terry. It's worth quoting the blurb on the very first page: 'ALL EDUCATION IS ENVIRONMENTAL EDUCATION' it shouts in capitals, and then,

> The pleas for development of environmental education as a new subject have misrepresented the problem, which is to change the environmental education that is provided in the study of any subject and in any classroom according to our best understanding of environmental realities. We must realise that all educational situations contribute to environmental education.

The blurb continues, and Terry 'presents a way to change in the classroom the basic assumptions of our educational system – assumptions which ultimately lead to the destruction of our natural environment'. Here are two radical ideas which are as relevant now, as they were when I found this book – in a London bookshop back in 1971. That's not far off 40 years ago.

Clearly, an awful lot has changed in our approach to environmental and sustainability education in this time, and we, as a movement, have learnt a great deal. Whilst celebrating this and taking things forward, it's helpful to look back too, and rediscover and value some perennial insights, such as those which Terry and many others have presented over the years. In this spirit, I've also recently revisited Barry Commoner's 'Four Laws of Ecology' which also date from 1971 and are worth re-stating here: 'Everything is related to everything else'; 'Everything must go somewhere'; 'Nature knows best' and 'There is no such thing as a free lunch'. Would that

policy makers had informed their decision making by such simple but profound principles in the period since. Now let's jump to the Tbilisi Declaration.

By 1978, I had stopped classroom teaching and began working with the Council for Environmental Education in the UK – the year after the UN Tbilisi conference. I was happy to be in the wake of that event, enthused by the fact that it had taken place – an intergovernmental conference: surely, the stage was set for great things. It is testimony to the writers of the Declaration that the report was in fact seen as seminal by virtually everybody in the environmental education movement. It was not just the fact that they felt mandated, but the text and rhetoric was visionary and meaningful – more accessible and practicable than most UN-speak. The Declaration reflected a prescient holistic outlook, with its emphasis on social inclusion and participation, on interdisciplinarity, lifelong learning, and local-global perspectives.

Where the Declaration fell short, and this applies to virtually all the high-level documents since which deal with environmental and sustainability education, is with regard to any critique of existing educational systems. Rather, the Declaration states that in order to achieve the goals of environmental education, a number of specific actions are required to 'fill the gaps' which 'continue to exist in our present education system' (UNESCO-UNEP, 1978, cited in Barry, 1992) – which presumably was fine in all other respects. The UN system cannot radically critique existing systems, except by implication, because of political constraints.

Thirty years later, the environmental and sustainability movement, with a few exceptions, is still not good at critiquing the context it seeks to influence. We can design wonderful new programmes, courses, curriculum materials, strategies and so on, but unless we delve deeper into the assumptions and values (as Terry suggested) that shape mainstream existing policy and provision both in education and wider society, we will always find our work constrained and marginalised. Whilst sustainability issues become evermore acute, most education globally still makes little or no reference to these issues.

As a young man, fired by Terry's book – and by Rachel Carson, Paul Ehrlich, E.F. Schumacher, Barbara Ward, and the Meadows' *Limits to Growth*, amongst others – and feeling mandated by the 1972 Stockholm 'UN Conference on the Human Environment' which pointed to education as a key to addressing environmental issues, I was pretty optimistic, and perhaps naïve, that humanity would change course once environmental education had highlighted the mounting dangers we were collectively creating.

Except it didn't quite happen of course. Twenty-five years of involvement and observation later, I grappled with the key question informing my doctoral inquiry: why is education as a whole, and environmental and sustainability education in particular, limited in their ability to make a positive difference to the human or environmental prospect by helping assure a more sustainable future – and what bases and qualities of change might lead them to become more transformative in this regard? It's still a huge and challenging question.

With regard to the latter part, (and assuming you were interested), I'll save you reading the 100 000+ words of my doctoral answer (Sterling, 2003), by summing it up in three: whole systems thinking. Looking back, I've made a career (of sorts) out of one thing: trying, and helping others also, to discover what holistic thinking really means and implies. This seems to

me to be an imperative to help heal a fragmented, endangered and fearful world built partly on what Gregory Bateson (another of my influences) called our 'epistemological error', by which he meant the perception of and belief in separateness that pervades the Western (and Westernised) consciousness. Over 30 years ago, Bateson wrote, 'I believe that (the) massive aggregation of threats to man and his ecological systems arises out of errors in our habits of thought at deep and partly unconscious levels' (1972:463). When I'm teaching, I sometimes ask students to look out and tell me where the environment stops and starts, and where society stops and starts, and where the boundaries of the economy lie. They can't be seen of course, yet we persist in projecting a fragmented perception onto a whole and interpenetrating reality.

If we want to educate for the whole person, for a genuinely more sustainable society, for a liveable and healthy future, we need to recognise the deep habits of thought in our individual and collective psyche, that tend to work against this direction, not least through their influence on mainstream educational purposes, policies and practice. Over the years, I've developed a three-part model that reflects the three 'seeing, knowing and doing' dimensions of personal and collective worldview. These are *perception* (or the affective dimension), *conception* (or the cognitive dimension), and *practice* (or the intentional dimension). In the first dimension, objectivism and individualism are often dominant, in the second we manifest a reductionist and dualistic tendency, in the third our practices are often disintegrative and lacking contextual or relational concern and thought. If we can recognise and examine these three interrelating aspects of worldview or paradigm, and also see them informed by a still powerful mechanistic metaphor underpinning our perception of the world, and assisted by growthist values, we can begin both to achieve a critical 'stepping out' or second-order learning, and a vantage point from which we can see and begin to articulate a relational constructive postmodern worldview, that is more adequate, appropriate and necessary for our times.

Referred to variously as 'ecological', 'living systems' and 'participative', this emergent and broad worldview transcends our dysfunctional view of the world and of each other, in Thomas Berry's words, as 'a collection of objects' with an understanding that we, and non-human species, are a highly interconnected 'community of subjects' (Berry, 2000). It entails a shift of emphasis from relationships largely based on separation, control, manipulation and excessive competition towards those based on participation, appreciation, self-organisation, mutuality, equity and justice. I term this 'whole systems thinking', an evolution of thinking and being such that the three dimensions of worldview are expanded and transformed, involving a necessary conjoining between an ecological ethics and sensibility, a connective or systemic understanding, and an integrative and sustainable way of interacting in the world and with each other. In short, this worldview transcends the alienating objectivism of modernism, and the disabling relativism of postmodern deconstructionism, and suggests a contextual relationalism. It involves developing a collective and connective consciousness which is *holistic*, 'How does this relate to that?', 'What is the larger context here?'; *critical*, 'Why are things this way, in whose interests?'; *appreciative*, 'What's good, and what works here?'; *participative*, 'Who is being heard, listened to and engaged?'; *systemic*, 'What are or might be the consequences of this?'; *creative*, 'What innovation might be required?'; and *ethical*, 'How should this relate to that?', 'What is wise action?', 'How can we work towards the inclusive wellbeing of the whole system?'.

This holistic three-part model of paradigm change manifests in various ways. In academic language, it can be seen in terms of *epistemology*, *ontology* and *methodology*. In traditional educational terms, it represents the *heart, head* and *hands* of the individual learner. In everyday terms, it underlines *awareness*, *understanding* and *competence*, and it points to the learner who is at once *concerned*, *connected* and *capable*. In strategic terms, it represents developing *vision*, *critique* and *design* for change. In educational terms, it represents *paradigm and purpose*, *policy and curriculum*, and *pedagogy and practice*.

This model is one attempt to help us go a step beyond mounting calls to 'change our way of thinking and doing' (which have been with us before and since Tbilisi) to uncover the roots of why we are as we are, and, from this basis, clarify the nature of a shift of collective consciousness which is already underway, in order to accelerate it further. The Great Transition Initiative's study of future scenarios suggests that 'the momentum toward an unsustainable future, can be reversed but only with great difficulty … (and yet) … a planetary transition toward a humane, just and ecological future is possible' (Raskin *et al.*, 2002:95). This depends crucially on 'the reflexivity of human consciousness – the capacity to think critically about why we think what we do – and then to think and act differently' (Raskin, 2006:23). From this perspective, the learning society is one that seeks to understand, transcend and re-direct itself through *intentional learning*. According to a Worldwatch report, we need to become conscious agents of our own cultural evolution in order to create a sustainable civilisation (Gardner, 2001:206): a huge social learning challenge, which, according to the writer Mary Clark, has only been achieved twice before in human history (see Sterling, 2007).

One thing that environmental educators have learnt over the years is that information alone is not the key. The authors of reports from IPCC, WWF, UNESCO, UNDP, UNEP, the Worldwatch Institute and so on must sometimes wonder what they need to say to get a sufficient reaction from policy makers and the public. While a sense of crisis can sometimes lead to breakthrough and new patterns of thinking and behaviour, it can also have just the opposite effect. Constant and mounting bad news can lead to numbing, denial, and retrenchment, or if it is believed and accepted, disempowerment and despondency. This is what I call 'learning by default' – it's 'late in the day' and reactive. Intentional learning is different, and may be called 'learning by design'. Such learning is both preventive and remedial, both anticipative and rooted in current needs and realities. It combines critique and creativity with foresight and wisdom. It is at least second-order learning (challenging dominant assumptions) and sometimes third-order (seeing differently through changed paradigms). It is essentially about taking the 'cultural volatility' that the current sense of crisis engenders, and turning its energy to positive, constructive learning towards more intelligent and sustainable living. This reflects what the Global Transition Initiative has labelled the 'push of fear' and the 'pull of hope' (Raskin, 2006).

So environmental and sustainability educators have a daunting but positive responsibility: to help seed a change in consciousness, to facilitate learning by design, to develop anticipative education, to nurture and mentor resilient learners, and develop critical learning environments where transformative, experiential and experimental learning can take place, at personal, institutional and social levels. And to do it in a spirit of hope and collaborative inquiry. The shape of the future, whether liveable or dystopian or somewhere between, will be determined

by how deeply we as a species are able to respond to the sustainability challenges that face us in the pivotal decades ahead. This is an unprecedented learning challenge, involving unlearning, re-learning and new learning to assure ecological integrity, social coherence, and economic viability as mutually interdependent conditions.

The Global Transition Initiative notes that an emerging planetary consciousness, identity and citizenship may seem improbable, but given 'the push of fear' – the increasing realisation that we might share a common downward destiny – and the 'pull of hope', a positive planetary vision, it is certainly possible. Learning by design is key to increasing that possibility.

Notes on the Contributor

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