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Global Intimacy: How do we cultivate a care for 'place' when the place is the planet?

Abstract

Developing an understanding of the global implications of our daily actions such as energy and resource use is a challenge for all of us. For educators wishing to address these issues, matters are further complicated by the influence of globalised economies, marketing, media and politics. At the root of our 'disinterest' in the influence of these forces may be a lack of awareness, a sense of helplessness, or perhaps, simply, that it is hard to love a planet. Maybe our willingness to ignore the implications of our actions comes from a disconnection between our many tiny or invisible actions and their consequences, or maybe from a lack of understanding and care for not just our 'place' – the planet, but of the biogeophysical systems upon which fundamentally we depend. This presentation will explore these issues and the role of education, engagement and communication in attempting to redress the balance.

Introduction

I work in a range of areas related to experiential approaches to environmental and sustainability education, and am at heart an inter-disciplinarian. This influences this paper, and whilst the context of this presentation is about global climate change, this is seen as one part of a bigger range of issues to do with sustainability.

Sustainability as a concept is of course anthropocentric. There are many 'people issues' that are not sustainability issues but there are no sustainability issues that are not 'people issues' – and by that I mean in terms of the causes, rather than the impacts, which can be for ourselves but also for many other species and ecosystems. In pursuit of the idea that we are less likely to harm things we are close to and care for, this presentation is really about the notion of 'intimacy' with our planet, and how we might cultivate this feeling. Much has been written about the importance of a sense of place – but how do we develop a sense of, and care for 'place' when 'the place is the planet'?

The 'geologic turn'

In a discussion of climate change and sustainability, a consideration of geological time and Earth processes provides an important perspective, and questions such as: What was the Earth like in the past? What will it be like in the future? What is our impact on Earth processes? Are fundamental to that perspective. Geological discoveries in Scotland led to the most successful 'theories of the Earth', and the notion of 'deep time', and arguably the most significant place in the history of the evolution of geological thought is about 50 miles east of Edinburgh, at Siccar Point. The Scots geologist widely credited with being the 'father of modern geology', James Hutton visited this coastal outcrop in the late 18th century. The very obvious differences in the orientation of the geological strata, and the 'discontinuity' between them (of what we now know to be about 70 million years) provided clear evidence to support his ideas about the vastness of geological time, which led to his 'Theory of the Earth' in 1788. Hutton's 1788 paper concludes with the highly memorable and much quoted phrase, 'The result, therefore, of our present enquiry is, that we find no vestige of a beginning no prospect of an end'. Hutton's work provided another Scots geologist, Charles Lyell, with the basis for his Principles of Geology (1830-33), bringing Hutton's ideas on 'deep time' to prominence: an absolute necessity for Charles Darwin to develop and publish his theory of evolution, 'On the Origin of Species' in 1859. These philosophers exemplify both the 'scientific paradigm' that is necessary for our

understanding of the sustainability issues we are encountering today, and their work offers a time-scale to contrast with the speed of current changes to the Earth's climate, and the rate of extinction of species, as we seem to be heading for the 'sixth great extinction' (see Monastersky,2014 for a recent review).

At the time these authors were writing it would have seemed unthinkable that man as a species would be able to have influences on a geologic scale – but as we become more aware of our impact on the planet the notion of the 'Anthropocene' has gained popularity – the idea that if we were able to look back from the distant future we would see the equivalent of a geological epoch comprised of solid evidence of the changes we have made to the planet, including the excavation of strata to make our cities and fuel our industrial economies etc., and other impacts such as dangerous global climate change, leading to amongst other things, mass-extinctions and hence changes to the fossil record. The term has been in use since the mid-1970s, but was first published in 2000 by Crutzen and Stoermer.

This concept has led Kathryn Yusoff [1] to argue for a 'geologic turn' – essentially an approach to thought and action that takes seriously 'not just our biological (or biopolitical) life, but our geological (or geopolitical) life, as crucial modes of subjectification in the Anthropocene'. In doing so she reprises ideas from Primo Levi's beautiful essay on 'carbon' [2] where he both expresses the immutability of a single carbon atom, imagining its history through geologic time, leading to its role in a brain synapse stimulating the creative act of writing the author writing the essay itself. In so doing, he illustrates that we are a part of the geologic (and indeed photosynthetic) processes of the earth.

Such an 'envisioning' approach has value in terms of considering our potential collective actions towards a sustainable (or unsustainable) future, and has been used to effect in the media in films such as 'The Age of Stupid'[3] in which the lead character reflects on the world in 2055 - devastated by climate change. The fictional aspects are combined with documentary footage illustrating many facets of dangerous climate change and our dependency on fossil fuels. The impact of the film on viewers' attitudes to 'sustainability' and their behaviour have been investigated by (2011).

What key values help people recognise the importance of sustainability and act accordingly?

This is of course a question that has vexed the 'sustainability' debate for some time. Considering the evidence and the efforts made to inform and to stimulate action, especially given the significance of dangerous climate change, it would be reasonable to expect that we would be well on our way to dealing with the key issues. However, progress is minimal; so why is this? There are many potential explanations at an individual and indeed societal level. For example:

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[1] Yusoff, K. (2013). Geologic life: prehistory, climate, futures in the Anthropocene. *Environment and Planning D: Society and Space, 31*, p. 779

[2] Levi, P. (1984). *The periodic table*. London: Abacus. Chapter on Carbon. p. 224-233.

[3] Armstrong, F. (2009). The Age of Stupid. Spanner Films. http://www.spannerfilms.net/ Accessed March 2016.

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1 We don't really believe the evidence of dangerous global climate change, loss of biodiversity etc. We don't trust this science, even if we trust that which supports modern life.

2 We don't understand science and the scientific paradigm (i.e. that scientists can be wrong and that can lead to a new understanding), or we don't understand statistics (e.g. a 95% likelihood that we are causing global climate change actually means, that we probably are, unless proven otherwise).

3 We don't notice the issues – we don't see them or they happen so slowly they appear not to be real. We primarily apprehend the world experientially and so the failure to notice climate change or loss of biodiversity is difficult for us to perceive through direct experience. The most famous analogy is that of David Suzuki's 'boiling frog' which was used by Al Gore in the film 'Inconvenient Truth'. This is similar to our response to issues such as the relationship between diet/exercise and personal health.

4 We don't think they are worth noticing. As the psychologist Eviata Zerubavel – argues that 'Everything we do depends on first on what we define as worth noticing'. If it is not in the foreground, but in the background we are not going to prioritise it.

5 We don't take the issues seriously. As Ben Goldacre argues 'We are predisposed to undervalue adverse outcomes which are a long way off, especially if we might be old or dead soon'. And further that 'we are predisposed to find cracks in evidence that suggests we should do something we don't want to do; this is exacerbated because climate science is difficult'.

6 We don't see the connections between our actions and the consequences. We don't see what really sustains us (air, water, food), the processes such as photosynthesis upon which we have evolved to be absolutely dependent, and consequently the need to maintain a 'healthy planet'.

7 We don't think of the 'sustainability issues' as 'me'/'people' issues:

- Judeo-Christian doctrine has embedded the notion that 'man has dominion over the Earth', so it is natural that we exploit it for our benefit – God wants it that way.
- It is something that is outwith our influence and control.

8 We think they are 'somebody else's problems':

- It is not harming me or those around me – even if it is happening to others (humans and other species) somewhere else, now or in the future.
- Somebody else will deal with the issues – we expect politicians to do so (but paradoxically we don't trust government on science because we know they distort it!).

9 We allow ourselves to be influenced by the media and politicians - who are willing to ignore the evidence for short-term personal gain, or are 'mischievous' with it (often for political or corporate gain).

To be fair, developing an understanding of the global implications of our daily actions is conceptually challenging, and all the more so when extrapolated into a future that can only be predicted by models, which are by their nature imprecise. The lack of any possibility of *direct* evidence that our actions (e.g. energy and resource use) 'in the here and now' of the 'developed world' can have impacts on some distant place (e.g. a 'developing nation' where for example sea levels are rising) or some future where dramatic impacts are felt much closer to home, provides an easy escape for those of us not wishing to make changes to our lifestyle.

Can we 'frame' a response to address the situation?

The concept of 'framing' of ideas refers to the way we as individuals, groups and societies conceptualise ideas. We have frames or schemas that are used to perceive, organise and communicate about the conceptual and physical world around us. So we have frames relating to our ideas of 'nations', its characteristic food, culture etc. There are of course frames relating to the 'environment', 'politics', 'energy', economics', 'food', 'health', 'trade' etc., and these are all related in some ways - so one frame can relate closely to other frames. These frames are built up over many years through our exposure to many interactions and bits of information, and the ways these are conveyed. As an example of how framing matters, imagine a big 'news item of the day'. Now consider how journalists present the story. There will be some consistency around the basic details, but often much of the story will differ because the journalists write their pieces to both fit within their personal frame, the frame their readers expect, and indeed sometimes they may even attempt to influence it.

According to the psychologist George Lakoff [4] frames are powerful influences because they 'come in *systems*, a single word typically activates not only its defining frame, but also much of the system its defining frame is in. Repetition re-enforces the frame, strengthening the neural circuits. Frames have direct connections to the emotional regions of the brain.' And what makes them difficult to change is that the 'wrong frames don't just go away, and negating a frame just activates the frame'. He gives the example of President Richard Nixon stating on television 'I am not a Crook' – which simply reinforced the belief in the public that he was!

Again according to Lakoff 'one cannot avoid framing. The only question is whose frames are being activated – and hence strengthened – in the brains of the public'. And this means that any kind of environmental or sustainability communication, messaging or education must take account of framing. He argues that 'Many people involved in environmentalism still have the old, false view of reason and logic' (and so we continue to try to make our points through this approach), but …'The facts must make sense in terms of their system of frames or they will be ignored' (2011, p. 73). And specifically "In the case of global warming people all too many people do not have such a system of frames in the conceptual systems in their brains. Such frame systems have to be built up over a period of time."

In essence to understand the 'real crisis' [5] one needs the right conceptual structures in one's brain circuitry, and to respond to it is problematic as we have evolved to deal successfully with immediate, rather than long-term threats (see Harman, 2014). So what are the implications for those seeking to generate an action orientation to address sustainability, and specifically dangerous climate change? Lakoff [6] advises:

1 we need 'a constant effort to build up the background frames needed to understand the crisis while building up neural circuitry to inhibit the wrong frames'.
2 we need to develop much better communication systems – at local through to national level, with good people doing the messaging
3 we need to plan the frames that are going to be needed in the long-run and how these will be institutionalised

[4] Lakoff, G. (2010): Why it matters how we frame the environment. environmental communication. Journal of Nature and Culture, 4:1, 70-81. http://dx.doi.org/10.1080/17524030903529749. Accessed March 2016.
[5] Ibid
[6] Ibid

4 we need some 'practical hints':
- Talk at the level of values, and frame issues in terms of moral values, always go on the offensive never the defensive (remember that negatives just activate the frame)
- Provide a structured understanding of what you are saying (not a list). Tell stories that exemplify your values and rouse emotions. Give general themes and narratives that exemplify your points rather than facts and figures.
- Context matters, be aware of what is going on. Address everyday concerns. The messenger matters. Visuals matter. Body language matters.

With regard to developing a sense of 'intimacy' with our planet, of particular relevance to us is the '*Environment* frame', as Environment/nature is generally considered to be something other than ourselves – 'out there'. Yet this is plainly wrong – we are part of nature and nature is part of us – and this relates most obviously to the air we breathe (produced as a by-product of the photosynthesis of plants), to the food we eat that comes from this process one way or another, to the way it is digested symbiotically with the bacteria in our guts.

It is this relational issue – our perceptions of nature, and how we educate to address this 'frame', which is a key element of the work my colleagues and I do, to which I now turn.

The role of learning for sustainability

Education is of course a 'frame' itself, and if we think of that word we will probably have an image of something like a modern-day version of this classroom. All nations have a period of formal schooling somewhere between the ages of 3 and 18 and many have opportunities for further study at a higher level.

Mostly we think of education as being indoors, and about knowledge and skills to deal with that knowledge (this is a way education is commonly 'framed'), but as the educational philosopher Eliot Eisner has pointed out, what is not evident (what he calls the 'null curriculum') is perhaps at least as important as what is. So if the idea that 'we are nature' is not framed and reinforced positively, as children in schools and indeed most of us as adults certainly in the so called 'global north', spend much of our time separated from 'nature' and oblivious to natural processes, the proposition becomes a 'null curriculum' and it is little wonder that we do not appreciate it.

So a key theme in our sustainability education work is the development of this relational theme – ourselves as part of nature, nature as part of us. This is a difficult concept as the opposite (we can exploit the Earth for our own needs, and that we are separate and rational - a Descartian worldview etc.) are deeply embedded as a social norms. It is also a tricky thing to manage, as we have to develop an understanding that we are both 'nature', and as a rational and enormously powerful species, have at the same time 'responsibility for nature'. This means we can't behave as other animals can and take what we want without thought for the consequences.

This is not unproblematic as we have to take care to understand what motivates our actions. Rachel Howell's doctoral[7] study on people who have already adopted lower-carbon lifestyles

[7] Howell, R. (2012). Promoting Lower-Carbon Lifestyles: The role of personal values, climate change communications and carbon allowances in processes of change. PhD Thesis, University of Edinburgh

found that for these people 'protecting 'the environment' *per se* is not the primary value stimulating action; 'typically they were more concerned about the impacts of climate change on people in developing countries'[8]. For these individuals whilst 'biospheric values are important … they tended to score altruistic values significantly higher' [9]. This fits in with the work of Tim Kasser who with his colleagues has analysed the values-sets of individuals from many countries and found that intrinsic values are grouped associatively, as are extrinsic values[10]. Their work also indicates that people with an intrinsic values orientation (tend to be interested in community etc.) are generally more motivated to care about the environment and sustainability. Further, Kasser and colleagues argue that approaches to learning that develop one aspect of intrinsic values lead to the development of other related values, and overall a stronger sense of community values[11] [12].

In recent empirical studies Weinstein et al[13] showed that participants in their studies who were subject to 'nature immersion' showed higher valuing of intrinsic motivations and 'lower valuing of extrinsic aspirations, whereas those immersed in non-natural environments reported increased valuing of extrinsic aspirations and no change of intrinsic aspirations'. This fits in with a broader review of literature my colleague Beth Christie and I conducted in 2012 where we found that influences on the development of pro-environmental behaviours included 'direct contact with nature, eco-literacy (knowledge of basic ecological principles and understanding of one's place in the ecosystem), sense of place, connection to nature, critical and reflective thinking skills' etc. and a sense of being willing 'to take responsibility for one's actions' (and so become agents of change). We concluded that 'education, specifically the process of teaching and learning out of doors, is well placed to deliver aspects of these positive, connecting experiences'[14] . This means that a rounded concept of 'learning for sustainability' must acknowledge the significance of what is often called 'global citizenship' (as per Howell's research) and outdoor learning experiences.

So what are the implications for the education systems of the world if these sustainability issues are to be taken seriously? The interface between educational theory and practice, curriculum and teaching, and relationships between the teacher/facilitator and the learner are 'the business' of the educational process, but in the context of sustainability the 'environment' and our relationship with it, must also feature. Consequently learning experiences that highlight much more than factual learning are required. Previously, I have advocated highlighting the 'elements' - 'air', 'water', 'earth' (biodiversity/food) and 'fire' (energy flow from the sun through ecosystems and food sources), and in particular that it is important to emphasise the role of plants in producing the air we breathe and the food we eat, and global thermal balance - climate

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[8] Howell, R. (2012). Promoting Lower-Carbon Lifestyles: The role of personal values, climate change communications and carbon allowances in processes of change. PhD Thesis, University of Edinburgh p.2
[9] Ibid
[10] Kasser, T., & Ryan, R. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. Personality and Social Psychology Bulletin, 22, 280-287.
[11] Kasser, T. (2009). Psychological need satisfaction, personal well-being, and ecological sustainability. Ecopsychology, 1, 175-180.
[12] Kasser, T. (2011). Cultural values and the well-being of future generations: A cross-national study. Journal of Cross-Cultural Psychology, 42, 206-215.
[13] Weinstein, N., Przybylski, A., Ryan, R. 2009. Can nature make us more caring? Effects of immersion in nature on intrinsic aspirations and generosity. Personality and Social Psychology Bulletin, 35, 1315-1329.
[14] Christie, E., Higgins, P. (2012). The impact of outdoor learning on attitudes to sustainability. Commissioned report for the Field Studies Council. Preston Montord: Field Studies Council. 38p p.2

and weather. However, the approach to teaching is also important, as in line with support from the literature[15] [16] [17] direct outdoor learning experiences are valuable in supporting this learning. This approach is of course both supported by a notion of the 'environment' frame and promotes its value, but with a strong emphasis on associated human-centric values. Perhaps for similar reasons to those listed above relating to our unwillingness to address sustainability, we seem to have a short-term view of the 'environment', and this too needs to be addressed if we are to support the healthy functioning of the Earth's biogeochemical systems.

But education *per se* is not the only 'answer'

To return to the idea of 'the process' above, this becomes a key to both understanding and action. There is no nature/biologic/geologic/human/culture divide, there is simply a sense of movement, of 'becoming', as all organisms and all inorganic matter on the planet 'becomes' something other, and then 'becomes' something else. This concept resonates with the non-standard definition of 'animism' suggested by Clarke and Mcphie (2015) who describe this as a "mode of being (becoming) that embodies both 'seeing' and 'acting' within a world ontologically understood by its inhabitants (animists) to be constituted materiality, to be whole, alive and forever becoming" (p. 206). They illustrate this idea with the question 'When, for instance, does plankton stop being nature? When it has gone through cartagenesis and become oil? When the oil is refined into plastic?' etc.

They argue that the manner in which reality is co-depicted 'holds the most potential for sustainability education through animistic ways of seeing', and that 'educational approaches more likely to demonstrate the essential 'becomingness' of the world' (p. 211) require learning as 'elemental' (Higgins, 2010, and as above) and related to seasonal and diurnal rhythms. A guiding question, again echoing Levi's article, may well be 'what does it really mean (to me) to be a carbon-based life form?'.

However, communicating learning ideas for discussion, debate, modification and if appropriate, implementation, requires more than local practices. The scale of the issues we face suggests that we enlist global 'communication systems' to support the process. One example of potential is the growth in Massive Open On-line Courses (MOOCs). My colleagues and I recently wrote and ran a MOOC called 'Learning for Sustainability: developing a personal ethic'[18]. To deal with something so fundamentally embedded in personal values (with over 12,000 individuals in 162 countries) is daunting and very atypical of MOOCs. We decided to try to develop an intimate and familiar learning environment online, and having maintained this approach throughout it seems to have been effective, resulting in a highly effective support-community amongst participants through on-line posts/blogs etc. leading to commitment to individual action. For example…

[15] Christie, E., Higgins, P. (2012). The impact of outdoor learning on attitudes to sustainability. Commissioned report for the Field Studies Council. Preston Montord: Field Studies Council. 38p.
[16] Higgins, P. (2009). Into the big wide world: sustainable experiential education for the 21st century. Journal of Experiential Education 32(1), 44-60.
[17] Beames, S., Higgins, P. & Nicol, R. (2012). Learning outside the classroom: theory and guidelines for practice. New York: Routledge. 125p.
[18] Christie, E. & Higgins, P. (2015). 'Learning for sustainability: developing a personal ethic'. Massive Open On-line Course (MOOC). University of Edinburgh. https://www.coursera.org/course/sustainability Accessed March 2016.

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> ***'Learning for Sustainability*** *has allowed me to reflect on where I have come from and has asked me to address local issues in ways I have never done before. I live in a developing country where there is much to be done in creating a more actively sustainable community (although this course has made me realise that this is indeed a global issue whether the country is developing or not). Now it is time for me to consider how I will make an individual, yet necessary, difference within my community.'*

Whilst the issues we face under the very dark umbrella of 'sustainability' are of a scale and complexity we as a distinct species have never encountered, we have, in recent centuries made progress on issues of great significance that for a long time were resisted by vested interests so strongly that they seemed impossible to address. Examples include banning slavery, female emancipation, apartheid, black/coloured and indigenous rights, freedom to join a trade-union movement etc. All of these required civic engagement with governments, commerce, the media etc., and here the role of education was to provide support for and belief in the value of this civic and essentially democratising process. The generic skills required to address such issues (critical thinking, values orientation, willingness to act on such values etc.) are precisely those required to address the challenging issues we face today.

The process of examining, re-stating and re-enforcing the conclusion that 'we are nature' demands review of our individual and collective moral positions. The issue of sustainability, and most notably dangerous climate change is a reality for all of us and all other species on this planet, and the biogeochemical systems that maintain all of this in balance. This is not something that we can simply continue to allow individual greed and politics to disrupt, and so the educational process must become political, as it was in the significant issues noted above.

The purpose of education must therefore become one where the key skill is helping the learner to recognise that they can understand difficult and complex issues, that the common good is a moral objective worth pursuing, that individually and collectively they can act to bring about change, and perhaps most of all that 'respect for and indeed love of self, others and the environment is essentially the same thing. This is not simply a 'here and now' issue, this has to be a love that is enduring with (in Hutton's words) 'no prospect of an end', and it requires us to consider our actions of the past and our responsibilities for the very long-term future, much as we do in any intimate relationship.

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