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Environmental and Sustainability Education Research, Past and Future: Three Perspectives From Late, Mid, and Early Career Researchers

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Abstract The first research symposium, organised in conjunction with the Australian Association for Environmental Education (AAEE) biennial conference, began with a dialogue between scholars at three different academic career stages. As we all entered the field at different periods in its development, the first part of our presentation and this article provide our perspectives on the context, approaches and issues that characterised the field at the time we became involved in environmental education (EE) and EE research. The second part of this article presents the lessons we have learnt from EE research, and where we see the field headed in the future.

Robert (Bob) Stevenson's Perspective on the 1970s and 1980s

Growing up in the 1960s near the foreshores of Sydney Harbour, I often walked through the bush to reach and climb along its rocky shores. Many of these foreshores remain in their natural state today, which a former federal government Minister attributed to occurring 'more by accident than good planning'. This statement does not explain the full story. The accident was a military history, dating back to the late 19th century, of using these areas to guard against invasion by naval vessels. When the Australian Government in the early 1970s began discussing transferring some of these foreshore lands, local grassroots social movements worked to save portions of the Sydney Harbour foreshores from urban expansion and property developers. This community activism led to the declaration of the Sydney Harbour National Park in 1975. This declaration was *not* by accident — it was the result of a national and global environmental movement

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that created a new cultural context in which the protection of nature was valued and community-based political and conservation activism was socially acceptable.

Surrounded by this context, environmental education (EE) at this time had a nature conservation education focus, with the dominant EE research concern identifying what students gained from experiences in nature. The assumption was that the earlier the experience the better, and that awareness of nature would lead to changes in individuals' attitudes and behaviours. The goals of environmental education were modest — none challenged the dominant socioeconomic structure of Australian, or indeed of Western society (Stevenson, 1987).

A more defined and progressive agenda for EE came in the second half of the 1970s with the Belgrade Charter (UNESCO-UNEP, 1976) and Tbilisi Declaration (UNESCO-UNEP, 1978), both of which expanded the concept of the environment to include the built, and specified the goals of active student involvement in investigating and working toward resolving environmental problems. These goals resonated with my experience of the community political activism that led to the establishment of the Sydney Harbour National Park and supported my belief that education should be about working towards a better environment and society. These international intergovernment conferences and reports were highly influential on EE theory and national and state policies in Australia, including in Queensland during the time of a highly conservative pro-development government.

In the 1980s, theorising about curriculum and educational research was particularly fertile, with debates about ideological, ontological, and epistemological positioning strongly in evidence. In particular, critical theory illuminated the socially reproductive role of education and argued instead for a social reconstruction approach that emphasised educating for transformation to a more egalitarian and just society — to which EE scholars added, and an ecologically sustainable one.

A socially critical perspective to theoretically frame EE research was led from the mid 1980s by Australian scholars such as Ian Robottom (Robottom, 1984, 1987), Annette (Greenall) Gough (Greenall, 1986, 1987), Noel Gough (Gough, 1984, 1987), John Fien (Fien, 1988), and, to a lesser extent, myself (Stevenson, 1987). John Huckle in the United Kingdom (Huckle, 1983, 1988) was another critical theorist who also influenced the international EE field. This scholarship challenged the dominant focus, especially in the United States, of viewing EE as about changing individual behaviour to predetermined ends. This U.S.-led behaviourist and positivistic focus assumed that so-called 'pro-environmental behaviours' are the desired outcome of EE. This 'deficit model', strongly represented in educational research efforts to identify ways of eliciting 'responsible environmental behaviour', usually fails to recognise the influence of socioeconomic structures on individual behaviour. Although later models have taken into account the complicating factors of individual contexts, the goal remains contrary to the idea of empowering individuals and communities to make their own decisions about environmental issues and to organise for collective political action.

Jo-Anne Ferreira's Perspective on the 1990s and 2000s

Arriving in Australia from South Africa in the late 1980s, I was suffering the effects of a highly politicised life. After attending talks by Bob Brown and Peter Garrett, I decided to marry my teaching background with my newfound interest in the environment and in 1993 discovered the Master of Environmental Education program at Griffith University, jointly developed by John Fien and Helen Spork at Griffith University, and Ian Robottom, Annette Gough and Noel Gough at Deakin University in the early 1990s — the first in Australia. Through this Masters program, I was introduced to the key thinkers such

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as Annette (Greenall) Gough (Greenall Gough, 1991, 1993), Noel Gough (Gough, 1990, 1991), Ian Robottom and Paul Hart (Robottom & Hart, 1993), John Huckle (Huckle, 1986, 1990) and John Fien (Fien, 1988, 1991, 1993). In retrospect, the program provided an excellent grounding in the field's history, and the key ideas, thinkers, and questions being asked.

The focus in the field in the 1980s was on the social and the political in relation to the environment and to EE, and this focus rippled out through a range of EE activities. There were concerns about how we do research, for example. With the main journal in the field at this point — the *Journal of Environmental Education* (JEE) — still resolutely quantitative, there was a desire for 'richer' ways of engaging with the research, which led to an increased interest in qualitative research methods such as action research, grounded theory, and interpretive case studies. So determined was this methodological shift, however, that Sharon Connell cautioned the field against throwing the baby out with the bathwater, arguing that there was still a place for quantitative research in EE (Connell, 1997). The challenges of teaching values, ethics, and controversial issues — should a teacher demonstrate neutrality or committed impartiality? — were being discussed. The question to ask today is whether or not this social and political focus — education *for* the environment — is still really evident in the field. Has it become, as I have argued (Ferreira, 2009), simply an unquestioned orthodoxy — or, as Jickling and Spork (1998) argued over a decade ago in *Environmental Education Research*, mere rhetoric?

Talking of orthodoxies and rhetoric, the second key shift I have seen is a focus on sustainability rather than the environment. Sustainability is a highly contested concept (see Jickling's 'infamous' paper: 'Why I don't want my children educated for sustainability'; Jickling, 1992) and debates between Lucie Sauve (Sauvé, 1996) and John Huckle (Huckle, 1999), for example. Despite the contestation within the field of EE, Education for Sustainability (EfS) or Education for Sustainable Development (ESD) — with the backing of the United Nations — seems to have become a juggernaught. Or has it? What is the future for ESD post the United Nation's Decade of ESD, for example? Will we still be talking about ESD in five decades time, as we are with EE? If we look at Google Ngram — where you can search for terms and their use in books over time — EE still reigns supreme, with ESD and EfS used only around 20% of the time. So is ESD a juggernaut and will it survive?

Sherridan Emery's Perspective on the Current Era

I spent the 2000s completely unaware of this history and work in EE. Armed with a business degree in marketing I worked for most of that decade in the field of public relations. I was a little like those graduates Orr (1994) wrote of in the opening chapter of *Earth in Mind* when he warned that 'without significant precautions, education can equip people merely to be more effective vandals of the earth' (p. 5). I cut my teeth doing publicity for a massive regional shopping centre redevelopment, managing public relations state-wide for a global hotel brand in its takeover and rebranding of hotels around Queensland, and writing advertising copy for slick new property development sales brochures. This was my stock in trade until I realised I was more part of the problem than part of the solution, and traded in public relations for education.

I moved to Tasmania and have had the good fortune of meeting critical thinkers in sustainability and arts education. Through sustained, shared conversations with these new colleagues, I have been exposed to authors whose ideas I have been intrigued by, including the more recent works of Zygmunt Bauman. Bauman (2005) argues that in the fragmentariness of this contemporary life — 'this liquid modernity' as he so

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poetically terms it — the stable pathways and anchoring points that once helped us navigate our way are in a state of flux (p. 313). It is a somewhat dystopian vision, but retrospectively, I have found resonance in his ideas with what I experienced in Queensland and in response to your question about the survival of the sustainability 'juggernaut' as you so well described it, Jo. Perhaps Bauman's ideas that all is not solid apply to ESD too — who knows if it will prove to be this permanent field or fixed structure that we can anchor ourselves to?

I am driven by what I see in our society as an urgent need for reconnection to a sense of identity and to the 'real world', and towards a focus on wellness and wellbeing in contrast to continuous economic growth as the measure of 'the wealth' of nations.

Bob Stevenson's Perspective on What We Have Learned From Environmental Education Research to Date

Of the many lessons learned, I would highlight three broad areas. First, we have learnt that both environmental and educational issues are ideological. That is, they are political struggles over ideas and worldviews. For example, education (and economic) systems continue to reproduce social structures and conditions (e.g., passive consumerism) that maintain the primacy of decision-making on economic rather than socioecological grounds. Too many people, including EE researchers, seem to be either unaware of or unwilling to confront the concept of ideology. Consequently, it is appropriate to question whether the political focus is really evident in the field. We do need scholars to be engaging in ideological critique of ontological, epistemological, and methodological positions, including their own. And we need educators to engage students in ideological critique in order to understand socioecological issues (such as climate change and poverty) and build their capacity to participate thoughtfully and creatively in addressing such issues.

Second, we have learned that people's worldviews and identities — or *subjectivities,* as the term preferred by many poststructuralists — shape their understanding of socioecological issues. How environmental worldviews and identities develop and influence individual and community actions needs to be the focus of EE research, in part because we do not know what actions create sustainable societies and, more importantly, because we should be seeking to empower and build people's capacity to make their own informed decisions rather than telling them how to behave.

Finally, I think we have learned that our research focus should be on learning rather than on education, as the latter is understood as formal and institutionalised with limiting regularities that have resulted in EE remaining at best marginalised in schools. Much learning and development of environmental identities and worldviews, particularly now, occurs outside formal education. Yet, little EE scholarship has focused on environmental learning processes and outcomes (Hart, 2003; Rickinson, 2001) inside or outside of schools. This is problematic as we need to learn our way forward to transform dominant ways of thinking about human development and progress, to bring about sociocultural change, and to create ecologically sustainable practices.

Jo-Anne Ferreira's Perspective on What We Have Learned From Environmental Education Research to Date

I think a key issue we face is not having a good historical perspective on and of the field. Knowing about, recognising and using research that has gone before is the only way we will shift our thinking and our practices. To paraphrase Nietzsche, only an untimely thinker who thinks through the past can become a thinker of the future. This is not, however, a call for us to romanticise the past or to recognise the past as some golden era when we were naturally in touch with nature (I find such thinking highly problematic),

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but for us to think critically about the knowledge that has been generated by previous EE researchers, in a way that is attentive to issues of the present.

One of the problems with not doing so is that we end up engaging in research that does not really tell us anything new, even when it is dressed up as something new. For example, we still see numerous papers on cases of individuals' attitudes/concepts/beliefs when the influence of these on, for example, teaching practice or student learning, are 'known knowns'. The concern I have is dual — first, as Mark Rickinson (2001) noted, we need to think about what it is we learn from these sorts of individualised cases of practice and how these may provide insight into broader issues of concern in the field. Unfortunately, this sort of reflection on the larger purpose is often missing from these studies. The second concern is what Reid and Scott (2013) refer to as the field's bald spots — those areas where we keep rubbing away over and over on the same issues when we should be looking for blind spots.

I also see this problem with the history of our field in my own students — who ask why I am giving them 'old' and 'out of date' materials to read. We seem overly obsessed with the new, and assume that it must necessarily be better than what we already know, or what has gone before. As researchers we need to think about why we do research and how we think of ourselves as researchers — our ontology. Papson (2014) reflects on both the amount of knowledge being generated and the ease of access to it — what he refers to as 'the increasing velocities of information flows' (p. 377). He discusses three forms of researcher — the scholar, the intellectual, and the bricoleur. Scholars, he argues, are deeply embedded within a limited body of knowledge — but they really know and understand it and can move thinking within it. The second, the intellectual, is more concerned with existence and possibility — with the 'what is' and the 'what ought to be' — he argues this is a very modern, progress-oriented, view of the world.

The third, the bricoleur — and he argues our students are already at this point and I would guess many of us researchers are also — has a grab bag of unsystemically gathered information we turn to different research needs. That feeling of 'this is stuff that I better save because it may just be useful!' is why curating tools like Pearltree and Diigo are becoming more widely used by academics. Papson's argument is that while our idealised notion of ourselves may be as scholar or as intellectual, our research practices are increasingly those of the bricoleur. The problem is, he argues, and as I noted earlier, for one's work to be noticed or seen now it does not have to necessarily be rigorous, or be building on what is already known, but it does have to be spectacular.

I am not arguing that we should all return to some romanticised notion of the scholar, but in a world with a fetish-like obsession with the economy and accounting we need to be mindful of the impact of this on our research — and on the quality of our work. Perhaps being a bricoleur will not allow us to do this. Perhaps we need to become flaneurs — walkers who deeply understand their city or world, who participate in their world, and who portray their world — and in the process change their world. We need to remember, as Myles Horton and Paulo Freire more eloquently said, that 'we make the road by walking' (Bell, Gaventa, & Peters, 1990, p. 1).

Sherridan Emery's Perspective on What We Have Learned From Environmental Education Research to Date

In terms of what we have learned, in my view, it is that the challenges are great and researchers have responded. However, despite the overwhelming evidence for the necessity to change the status quo, it is proving powerfully resilient. Researchers in the field have with their enduring efforts woven an incredibly fine-grained tapestry detailing so many dimensions of sustainability education — its pedagogies, practices,

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challenges, and impacts. For example, we are seeing action research having real impacts in classrooms in engaging children in genuine hands-on inquiry into sustainability issues, along with the development of new sustainability partnerships and programs, including research partnerships with teachers who are engaging in research on their own practice and its impacts. Methodological innovations, such as conducting research with and by children and young people (e.g., children's dreaming, designing, guided tours and photography as data in the 'Dapto dreaming project'; Malone, 2013), young people's use of social media in environmental networks (Field, 2015), and student-led research informed activism (Bencze, Sperling, & Carter, 2012) are developments I am inspired by.

Sometimes, however, research and reality appear to be two different worlds. Are we on the same page with what is happening 'out there' — or are we as researchers actually living in some kind of sustainability bubble? In the real world, for example, a curriculum review instigated by a conservative Australian Government has recommended fundamental change to the ways children are taught in Australian schools. Authors of the review, Kevin Donnelly and Ken Wiltshire, argue that inquiry learning, a pedagogical approach advocated in EE/EfS (Stevenson, 2007), is overly privileged in the curriculum. They call for a 'rebalancing' of pedagogical approaches through a back to basics focus on literacy and numeracy and more explicit instruction (Donnelly & Wiltshire, 2014). The Australian Curriculum was still in its implementation phase when the newly elected government started its campaign to dismantle it on what appear to be ideological grounds. The prospect of the nation's key educational policy being subject to the swings and roundabouts of politics truly frightens me.

As to where should it go from here, it can be really hard to remain hopeful when so many people seem unconcerned about global sustainability challenges. However, I feel energised by young people and their positive approach to the world. When I consider the future they are facing, I feel a sense of responsibility to advocate against a system that says literacy and numeracy matters most in the field of education. I am compelled to find out from young people what they are dealing with and how the education system can support them. I am interested in finding out what is really going on in this fragmented liquid modernity. I am fascinated by the cultural dimensions of sustainability — hence my PhD research of children's cultural wellbeing. For me, cultural wellbeing is learning to be well together, and in my research I am exploring how teachers make sense of this in their classroom communities.

In Conclusion — Bob Stevenson

First, I would like to strongly agree with Jo's point about the lack of historical perspective — I see that problem all the time in the manuscripts I review for journals. Second, I like your metaphor, Sherridan, of the polar bears isolated on broken-up icebergs reflecting our fragmented society. Researchers need to seriously consider how this fragmentation influences their own practice as well as that of educators.

My perspective is that the shift is now occurring internationally in leading environmental education research, from a focus on individual knowing (awareness and understanding), feeling (attitude), and acting (behaviour) to social worldviews, relational values and identities, and collective, as well as individual, agency (Stevenson, Dillon, Wals, & Brody, 2013). Research (some outside the boundaries of our field) is moving to probe the (often tacit) assumptions underlying environmental worldviews and illuminate the identities that shape and are shaped by those worldviews. We need this research to help us understand how and why people engage with — or disengage from — issues

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such as climate change. We also need to understand how educators' professional and environmental identities shape their curriculum and pedagogical practices.

In the future, I believe we should be focusing on learning. Price and Lotz-Sistka (2015) focus on the question: 'How we can facilitate learning processes that will lead to the flourishing of the Earth's people and ecosystems?' This is the kind of question environmental educators and researchers need to be addressing as it centralises learning processes and identifies human and ecological flourishing — including, in Sherridan's words, cultural wellbeing — as desired goals. Their book reports on a 10-year history of efforts — grounded in practice and theory — to address this question in southern and eastern Africa. This conveys the importance of grounding research in the context of place, time, and culture. However, I also think research should be engaging better with the discourse of practice as part of being grounded in the context of practice. I would suggest EE scholars still need to be working on the challenge of creating more accessible discourse without compromising the integrity or reflective utility of theoretical concepts. And, as Jo implied, we should not be shying away from critically examining how our discourses and practices relate to politics and power relations.

There is also the issue for environmental educators and scholars of translating environmental or sustainability discourse into curriculum and pedagogical practices that will engage students in developing deeply meaningful (but tentative) understandings and enduring dispositions (Stevenson, 2007), such as reflecting critically on reimagining human-nonhuman relationships (Hart, 2010). Hart has argued, 'if we can create pedagogical places/spaces that may have deep meaning, perhaps learning can be transformative' (2010, p. 7). We might begin by reflecting on what counts as engaging and authentic learning for youth and examine the sites and spaces where this occurs. For example, one of my PhD candidates, Ellen Field, is examining how young people use social media to learn from each other about socioecological issues and how to engage in environmental activism. That is one of the kinds of pedagogical spaces where, as researchers, we need to explore if and why deeply meaningful and powerful learning and activist engagement in authentic socioecological issues is taking place. This will help us to construct an informed narrative for supporting and empowering young people to build their individual and collective capacity to think critically and creatively about socioecological issues — and ultimately, to imagine what more sustainable and equitable communities and societies might look like and how we can get there.

Keywords: critical theory, liquid modernity, cultural wellbeing, environmental education, sustainability education, history, trends

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