

Education for the environment: action competence, becoming, and story

M. J. Barrett*

University of Regina, Canada

Introduction

A recent United Nations' report claims that nearly two-thirds of the Earth's natural systems are unhealthy or failing, and many point to education—environmental education, education for sustainable development, or sustainability education—as a key means of addressing these issues. Learning *about* environmental problems is not sufficient, however (see Hart & Nolan, 1999; Rickinson, 2001; Kollmus & Agyeman, 2002). As Russell and Hodson (2002, p. 489) claim, 'it is not enough for students to be armchair critics'; they need to get their hands dirty and learn how to take action. It is this action-orientation that characterizes 'education for the environment'.

Yet taking action is often not part of typical schooling processes (Stevenson, 1987), and frequently meets with resistance (see Lousley, 1999; Barrett *et al.*, 2005; Barrett & Sutter, 2006). Furthermore, a puzzling disconnect exists between those who possess environmental knowledge and awareness, but lack the propensity to act (see, for example, *Environmental Education Research*, 2002, 8(3)). In this vignette, I shall engage the ideas of Jensen and Schnack (1997), and Payne (2003) to explore, and complicate 'education for the environment'. I draw on my experiences of both gardening and conducting 'post'-informed narrative research (see Hart, 2005) with a high school outdoor/environmental education teacher in order to illustrate and reflect on these themes.

The stimulus papers by Jensen and Schnack (1997) and Payne (2003), are both concerned with what and who environmental education is for, in the sense that all environmental education is, in some way or other, education *for* the environment. Taken together, the authors examine the kinds of experiences, knowledge and ways of being that might lead to environmentally-focused student action. Jensen and Schnack (1997) support the development of students' action competence, which they suggest is an interdisciplinary type of knowledge that focuses on students' abilities to envision a future they want, and reflect on and respond to current health and

*Faculty of Education, University of Regina, 1045 Birchwood Place, Regina, SK, Canada S4S 7L1.
Email: Barret2m@uregina.ca

environmental concerns. Rather than advocate for particular behaviours where the action or outcome is already pre-determined by the teacher, Jensen and Schnack emphasize teaching to increase students' abilities to create their own visions for the future, and make choices based on those visions. They present issues around education for the environment as epistemological ones, focusing on the kinds of knowledge students gain from the experience of planning and taking action. Their work builds on modernistic conceptions of the subject and their ideas coalesce around questions such as: 'How do we come closer to an understanding of the types of experience that develop (relevant) action competence, and the types, if any, that counteract it?' (Jensen & Schnack, 1997, p. 176); and more recently: 'Which forms of knowledge contribute to the development of students' action-competence, and how should such a knowledge be acquired?' (Jensen, 2004, p. 414).

Payne (2003), however, is more concerned with questions of ontology than of knowledge, and suggests that in environmental education we need to emphasize matters of our own *becoming*. He argues for a focus on social ontology, which would involve studies of how humans are "socially constructed" through experience' (Payne, 2003, p. 530). Like Jensen and Schnack, he is interested in issues of agency in environmental education, and seems simultaneously both supportive and critical of 'post-informed' notions of the subject as discursively constituted. Payne expresses concern that too great a preoccupation with the textual or discursive production of the subject, and its deconstruction, might lead to the disappearance of the embodied, contextualized subject (Payne, 2005). Stories of summer gardening together with my doctoral research with secondary school teachers, provide two contexts in which to consider these issues further.

On gardening and other stories

I share a plot in the local community garden, a three-minute bike ride from my home. There, in the early morning hours, I enjoy experiences of soil on hands, sun on back, dew on grass. I soak in the fragrance of basil pushing its way into my nostrils.

Although, as Payne suggests, such an experience may be less mediated than gardening on the Internet would be, my mornings at the garden are far from unfiltered. As I plant, and pull weeds, I carry stories with me and re-live them as my hands move in and through the soil. It is these stories, together with my physical interaction with the earth, that (re)produce this garden as a place of safety, abundance and pleasure for me.

Although we are both participating in the same tasks, my gardening companion brings different stories with her and lives a different experience. She brings stories of gardening with her grandfather, where the focus was on getting the job done. She talks of wanting to learn a new gardening culture that includes stopping for tea and snacks halfway through planting a row of carrots. But changing her story takes effort, and needs someone to call out: 'Whoa! It's time for a break, now!'

I talk of my time in the garden plot to point out that, for each of us, available discourses make only certain experiences, and meanings of our time there, possible.

While gardening may appear to be a direct experience, mediated only by hands, eyes, and other senses, the discourses we have access to, and their relative power, mean that my friend and I not only make different meanings from our interactions with weeds, sun and soil, but we actually experience them in different ways (see Scott, 1991; Russell, 1999; Newbery, 2003; Weedon, 2004). This seems different from Payne's claim that it is only the meaning we make of those experiences that differs, as our experiences are those of historically situated and 'biographical subject[s]' (Payne, 2003, p. 530).

I now turn to my doctoral research with a teacher called Jeff, to illustrate how dominant educational discourses seemed to constrain him, making it difficult to move beyond his conventional focus on content acquisition, and teach in ways he wanted to. Jeff and I have shared conversations for three years in a range of contexts—during my in-school visits to his class, on extended hiking and canoe trips with his students, at a provincial sustainability youth conference, and at numerous coffee house 'interviews'. Jeff team-teaches an interdisciplinary outdoor education programme in a public high school. The five-credit programme offers courses in Grade 11 English, physical education, biology, math and, more recently, multimedia.

When I first spoke with Jeff three years ago, he wanted to offer students more freedom, flexibility, and responsibility for their learning. Yet he expressed concern about whether or not he was doing his job properly when students began working independently and didn't require his input as much as he was used to. He also worried about what other teachers might think if his class was seen 'wandering the halls' on days they were working on projects in different parts of the school. Educational discourses produce particular notions of what it means to be a teacher, including the idea that Jeff's job was to supervise students and provide knowledge through finely-tuned lessons. Some of these discourses seemed to have a hold on Jeff, keeping him from teaching the way he wanted to even though the flexible structure of the school's interdisciplinary programme could easily support a more open pedagogy.

The introduction of a multimedia course to the programme, and its integration with the Grade 11 biology course, seemed to provide the legitimation Jeff needed if he was going to teach the way he wanted - or, perhaps, thought he needed to. Most striking was the year-end project that he left 'wide open' (Interview, June 2005), giving students the chance to have more independence, choice and vision in their work. After three years of talking about it, his pedagogy was finally able to match his expressed desires. In order to be able to offer this open-ended assignment, it seemed as though Jeff had had to reposition himself within a different discourse of 'the teacher', contradicting what he had been 'trained to do' for most of his teaching career (Interview, October 2004). It appeared that since he had no previous experience and few preconceived notions of teaching using technology, Jeff was able to be open to new pedagogical possibilities: 'I always to a certain extent wanted to think that I was out of the box anyway and tried to think outside the box, but it's not the easiest thing to do when the box is set up for thinking within it' (Interview, May 2003).

On this point, Foucault's (1995) discussion of the panopticon and its effects is useful. Foucault talks of how, in eighteenth century England, it was proposed that external forms of prison punishment should be replaced by a multi-sided structure encircling a central watchtower that housed an invisible 'inspector' whose presence or absence was unknown at any moment. This panoptical apparatus, Foucault argues, fosters an oppressive self-regulatory form of control and constraint among inmates through both isolation and the possibility of constant surveillance. Foucault suggests that far from being just a physical structure, the 'panoptic schema' became a 'generalizable model of functioning' that can be, and has been, applied in prisons, hospitals, schools, and other institutions. Particularly useful 'whenever one is dealing with a multiplicity of individuals upon whom a task or a particular form of behaviour must be imposed' (p. 205), it is this panoptic form of discipline that seemed to be keeping Jeff from teaching the way he wished. Trapped by the uncertainty of never knowing when the guards (e.g., the principal, colleagues, parents) were looking, Jeff appeared to be disciplining himself to remain a 'proper teacher' as it was being defined and maintained by those in his school; it was a panoptic mode of constraint that was keeping Jeff from teaching the way he wished.

This analysis resonates with Jeff's point that 'our cultural identity almost precludes [students taking action] because our culture is based on something against that' (Interview, March 2004), as well as with St Pierre's (2000, p. 485) claim that speaking or thinking outside available discourses 'remain[s] unintelligible, outside the realm of possibility'. It is these self-disciplining 'technologies of the Self', combined with institutional structures (technologies of power) (Foucault, 1980), that seemed to be constraining Jeff from teaching the way he wanted. Theorized this way, assumed discourses of schooling act rather like prison guards to maintain the current, and dominant, pedagogical order.

What I am suggesting is that given the power of cultural narratives to frame experience, it is questionable whether, by itself, education for the environment (whether engaging in action projects or 'direct' nature experiences), is enough. For instance, in his performance of 'the environmental educator', Jeff's subjectivity was constituted by discourses that made some approaches to teaching possible and others very difficult (Boler, 2004). Rather than directly countering these notions of 'proper teacher' when faced with doubts about appropriate pedagogy, Jeff tended to revert back to more directive pedagogical approaches that were more aligned with content knowledge acquisition than with student action, and he suggested that perhaps encouraging action was a task better allocated to the museum (the host site of the forum) than the school.

The above segment of Jeff's story illustrates how he gained access to, and was able to take up, a pedagogical approach more in line with that of action competence. However, reflections on his participation in a 'Youth forum on sustainability', an educational programme that encourages students to develop and implement local action plans, suggests that dominant discourses of schooling made it difficult for him fully to engage in examining what or who environmental education might be for. In understanding Jeff's responses to the possibility of supporting student action within

the context of his school, Payne's (2003) notion of social ontology, and what a person can 'become', together with Foucault's perspectives on constraint, are clearly significant.

On repositioning and action competence

Jeff, together with the school's teacher-librarian and five students, participated in a youth forum on sustainability hosted by the Royal Saskatchewan Museum (see Barrett & Sutter, 2006). Catalyzed by two conference days, the forum provided opportunities for students to envision the futures they want, attend workshops about local issues and action-planning strategies, and then work with community partners, both at the museum and back at their schools, to develop and implement local sustainability action plans. Presenters at the youth forum emphasized that it was important for students to investigate and act on issues that were important to them while they also acknowledged that among other things, course content and time available might limit student choices of projects to take on.

While at the forum, Jeff spoke enthusiastically about the opportunity it provided for students to choose their own projects and take responsibility for their own learning. But afterwards, he expressed reservations about his own follow-through, and in our subsequent conversations his beliefs about the importance of teacher neutrality in action programs that support environmental action (see McKenzie, in press, 2006) came to the fore. For instance, Jeff spoke of teachers as presenting different perspectives, but when the discussion turned to environmental issues, he expressed concern about the possibility of his being a 'social engineer' if he was to make action projects part of his pedagogy (Interview, November 2004).

It is in such expressions of conservative notions of schooling that one can find the value of textual deconstruction, as a process of 'being alert' (Derrida, 1972, p. 231) to ways in which discourses produce and circulate values, beliefs, and notions of what is possible, doable, and acceptable. Discourses that position knowledge and education as neutral, limit students' engagement in environmental action (McKenzie, in press, 2006). In Jeff's case, it was as if the dominant discourse of the teacher as one who helps students develop a passion for learning, but not for action or advocacy, was a significant barrier to his fully supporting his students' follow-up actions from the youth forum.

Looking ahead

The experiences described above, together with the work of Jensen and Schnack (1997), and Payne (2003), suggest alternative ways educators and researchers might think about what and who environmental education is for. For instance, since one of the dominant discourses in Canadian public schools is knowledge acquisition, perhaps framing action competence as a particular kind of knowledge—knowledge about visions, causes, effects and possible responses to environmental problems (Jensen & Schnack, 1997; Jensen, 2004)—might open up space for it to become

legitimized as an educational aim and make it easier for teachers to adopt. On the other hand, this framing also puts action competence at risk of being co-opted by notions of school that (re)produce knowledge as something neutral, and once named as knowledge, action competence might become (re)inscribed as another behaviour-focused approach, and lose not only the emphasis on student thought, dialogue and choice, but also its the opportunity it brings to achieve the kind of social and structural changes it aims at. As Jeff's experience indicates, discourses of educational neutrality can have powerful disciplining effects on a teacher's ability to see beyond what they think it is possible to do.

Notions of knowledge as neutral, the subject as 'authentic' and stable, and the individual as an active, independent agent (McKenzie, in press, 2006) mask ways in which discourse and power work to keep teachers within conventional narrations of teaching. In the context of these concerns, it is important to ask what is being disrupted and what is being reinscribed when engaging various notions of environmental education. Even for passionate environmentalists like Jeff, taking up discourses not considered normative embodies social risk and requires careful negotiation (Whitehouse, 2001). Yet as Foucault (1980) reminds us, where there is power, there is resistance. For Jeff, it was technology that appeared to create the 'crack in consent' (marino, 1997) that enabled him to disrupt some discourses about what constitutes appropriate teaching. Yet when it came to supporting students to take action, dominant educational discourses (for example, learning as knowledge acquisition, and the teacher as provider of that knowledge) remained a dominant, and disciplining, force.

When I first read Payne's (2003) paper several years ago, I agreed with his argument that technology structures human experience in ways that erase many of the aesthetic, sense-laden, and dare I say, spiritual parts of experience that a pair of rubber boots, a 'yabby' net and a real pond might enable. I had been schooled by discourses of outdoor education that assumed 'direct' experiences in nature are context-free (Brookes, 2004), less mediated than classroom lessons (Payne, 2003), and can be experienced by a pre-discursive self (Payne, 2005). Also, I wanted (and still want) to believe, as many environmental educators and researchers seem to do, that 'human estrangement from nature is a significant factor' in current ecological crises, and humans might be less destructive if they 'were able to develop a closer, less estranged relationship to the natural world' (Hart, 2003, p. 164; see also Evernden, 1993; Hutchinson, 1998; Fawcett, 2002). The two experiences recounted here have troubled these perspectives and my assumptions about the correspondence between experience, narrative and meaning.

Now, while I still believe in the importance of "embodied intimacy" (Bell, cited by Payne, 2005) and support 'agitating for more direct experiences that 'rematerialize' the postmodern subject and his/her environments and natures' (Payne, 2003, p. 538), I do so with caution. My experiences of gardening and working with Jeff have led me to believe that as much as places, tools, or other technologies mediate experience, so do the stories we have access to. These stories not only produce our experiences, they also enable particular meanings to be made of them. While I still believe it is useful

to support direct experience with nature, to continue discussions about what knowledge students should learn and how they might learn it, and to engage in various other currents of environmental education (see Sauvé, 2005), I suggest we might find it useful to focus attention on approaches to research and pedagogy that interrogate how dominant educational discourses make it difficult, or (im)possible, for teachers and students to engage in action-oriented environmental education or, indeed, to take up environmental education at all.

To do this will require attention to not only what we know, but also to how we have come to know what we know (see Razack, 1993; Schick, 2000). It will also require interrogation into how this knowing, whether it be linguistic or embodied, serves to produce who we are. In taking this approach, we can gain some understanding of who teachers and learners are 'allowed' to be, and how it is 'decided' what is possible and permissible in education (Kumashiro, 2000, 2004). This kind of interrogation certainly helped both Jeff and me understand some of his resistance to an education for the environment. Contrary to Payne's (2003) concern that a focus on 'linguistic, textual considerations and their deconstruction' (p. 536; see also 2005) limits research and practice of environmental education to epistemological considerations, I suggest that an emphasis on interrogating discursive production of experience and subjects is very much about becoming, and in particular, what environmental education has, and might, become.

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