

Chapter 5

Environmental Learning and Categories of Interest: Exploring Modes of Participation and Learning in a Conservation NGO

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5.1 Introduction

This chapter explores ideas of participation by considering some of the issues surrounding frameworks for environmental learning. We begin by reviewing a recent analysis of a range of categories of interest in environmental learning. This indicates that the people and groups who promote or encourage environmental learning can have widely differing assumptions about both its purposes and processes, and about participation by learners in both their learning and thence in any social action they might take. We develop this analysis by examining how that which might be expected of the learner and the teacher/instructor in such environmental learning processes, and in ensuing participatory social and/or environmental change, can vary markedly across categories.

We then present an explorative case study of a membership non-governmental organisation (NGO) with a remit to enhance biodiversity and a mission to draw the public into actively participating, not only in the organisation itself, but also in society, through changing how they live. In this case, we examine the tensions between the interests of the organisation, with its need for people to participate in its work and for it to achieve its goals, and the interests of the participants themselves with their own values, goals, and imperatives. In particular, we examine the tension experienced by educators in the organisation between their values as educators and their work to support organisational goals. Finally, the work of the organisation is examined in relation to recent work on the relations between different types of learning and sustainable development.

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5.2 Environmental Learning and Categories of Interest

As we have explored in some detail elsewhere (Scott and Gough 2003a, b; Gough and Scott 2005), environmental education can usefully be thought of as a broad church whose congregation and ministers represent the many different facets of what has come to be called *environmental learning*. This is the learning which accrues or is derived from a study of the environment or environmental ideas, as the extensive environmental education literature confirms. Such learning can be the outcome of formal or non-formal educational programmes in schools and/or communities, or of designated environmental education interventions and/or personal or incidental learning where no teacher or instructor was involved. All these involve participation by learners in one form or another.

Table 5.1 sets out nine categories of interest which show the range of possible foci and objectives of those teachers, lecturers, non-formal educators, trainers, interpreters, field studies officers, conservation scientists, environmental activists, environmental philosophers, and researchers who value, espouse, and promote such environmental learning. It will be noted that this group varies considerably, not only in obvious ways relating to the kinds of professional responsibilities they have towards learners (and learning), but also in how they and learners interact. What all constituents represented here have in common is that, one way or another, they use the environment as a stimulus to learning. It will be observed that this common denominator – an interest in environmental learning – may link people whose principal concerns and interests, and perhaps whose underlying intentions (Lundholm 2004) in terms of desired social or environmental goals, may actually prove to be very different. It is certainly worth noting that this categorisation is merely a snapshot (at an early point in the 21st century) and that, had a similar analysis been attempted 30 years earlier (and were one to be attempted in 30 years time), the results would certainly have been (and would perhaps be) quite different. Indeed, carrying out the former at intervals would be an interesting retrospective way of mapping the development of the field, and the various pressures and influences on it.

Table 5.1 shows how emphasis varies across different interests. It sheds light upon the relationship between development education, and environmental education, and the interconnection of each of these with sustainable development and learning. All these contribute something to learning about the human condition, and about our co-evolving (Norgaard 1984, 1994) relationship with nature.

Of course, any such categorisation has to be a simplification, but this heuristic does allow us to consider how those interested in environmental learning can have widely differing assumptions about both purpose and process and, as we shall see later, about participation. For example:

- From #1 to #8, interest in nature *per se* decreases markedly along with a shift from a realist view of nature to a metaphorical one. There is also a shift from an interest in the individual learner to the social context.
- From #3 to #7, the environment (natural or otherwise) is viewed mainly heuristically, i.e. as a means of exploring issues and achieving particular goals.

Table 5.1 Categories of interest in environmental learning

Categories of interest	Focus and outcomes	Exemplified by ...
1. Those <i>interested in sharing the joy and fulfilment derived from nature</i> , in order to bring about significant life-enhancing and life-changing experience for learners e.g. Van Matre and Weiler (1983)	<i>Nature values and feelings</i>	<i>Non-formal educators and interpreters</i> seeking attitudinal and/or value change; possibly seeking to introduce and extend particular philosophies of living
2. Those <i>interested in the study of the processes of nature</i> in order to understand, or to teach about them e.g. Research sponsored by the National Science Foundation – www.nsf.gov , or by the UK's Engineering and Physical Sciences Research Council – www.epsrc.ac.uk	<i>Nature understanding</i>	<i>Teachers</i> of ecology, (physical) geography, the earth sciences, and rural studies; <i>researchers</i> in these (and other) areas
3. Those <i>using nature as an heuristic</i> to foster the development of knowledge, understanding, skills, and character which, although situated, are transferable to other contexts and through time e.g. Higgins (2002)	<i>Nature skills</i>	<i>Teachers, environmental interpreters, and field studies officers</i> seeking to develop students' cognitive/conative/affective/ psychomotor skills related to environmental work
4. Those <i>using the natural and/or built environments as heuristics</i> to achieve conservation and/or sustainability goals e.g. Foster <i>et al.</i> (2004), The National Association for Interpretation – www.interpnet.com	<i>Conservation understanding</i>	<i>Conservation/heritage scientists</i> (and others) working for government or NGOs bringing communication and education strategies to bear on conservation and sustainability issues
5. Those <i>advocating/promoting individual behaviour changes</i> in order to achieve conservation/ sustainability goals e.g. McKenzie-Mohr and Smith (1999)	<i>Conservation behaviours</i>	<i>Environmental activists and teachers</i> who have clear views on what the problems are and on their solutions

(continued)

Table 5.1 (continued)

Categories of interest	Focus and outcomes	Exemplified by ...
6. Those <i>advocating/promoting particular modes of social change</i> in order to achieve environmental/conservation/ sustainability goals e.g. Fien (1993), Huckle (1993)	<i>Social change</i>	<i>Environmental activists and teachers</i> with clear views on the form of social organisation needed to achieve sustainability
7. Those <i>using environmental, conservation, and/or sustainability issues as contexts</i> for the development of skills and knowledge related to the exercise of democratic social change e.g. Hungerford and Volk (1990)	<i>Social change democratic citizenship skills</i>	<i>Teachers</i> and others interested in helping (young) people acquire democratic and citizenship skills which will enable them to participate in open-ended social change relating to human–environment relationships
8. Those <i>promoting nature as a metaphor for a preferred social order</i> – which may be ‘cooperative’ or ‘competitive’, according to world view e.g. Devall and Sessions (1985), Lovelock (1979), Wilson (1975)	<i>Social change values</i>	<i>Sociobiologists, deep ecologists, social Darwinists, Gaianists</i> who engage in communication and informal education in relation to the relationship between humans and nature
9. Those <i>interested in the study of environmental learning</i> (and environmental education) itself e.g. Researchers such as ourselves – www.bath.ac.uk/cree	<i>Learning, learning about learning</i>	<i>Educational researchers</i> interested in various aspects of learning and teaching related to environmental and sustainability issues

- From #4 to #8, interest in social change increases strongly.
- #4, #5, and #6 are marked by an emphasis on activism which can complement (and sometimes supplant) educational goals.
- #8 sees the natural world as providing the foundations of a coherent and liveable philosophy that explains our social and ecological obligations. Some of those we have placed in this category may have very little else in common.
- #9 is a mix of those interested primarily in social/environmental issues, and those whose focus is on educational issues. #9 can usefully be further subdivided along methodological lines.

What Table 5.1 does not show, however, is the way that each of these categories has implications for participation, that is, for the engagement of people with these ideas and in learning. Yet all demand participation because all involve learning – and all learning involves participation, one way or another, whatever theory or model is invoked to explain this. Those teachers whose belief in technique is matched by a faith that the learner’s mind is simply waiting to be filled have to believe that the empty vessel is waiting, open – even if the learner’s only participative act is to aid this or not resist it.

In Table 5.2, a range of modes of participation in learning is explored in relation to the nine categories of interest set out in Table 5.1. These variously show what might be expected of the learner (and the teacher/instructor) in the learning process and, in some cases, what might then be expected in the use of any such learning in processes of social and/or environmental change. It will be seen that what is expected can vary from being better prepared to think about and act in novel contexts (e.g. where complexity, risk, and necessity are dominant features), to putting into action what one has newly learned to do (e.g. changing in probably fairly narrow ways one’s use of energy), to thinking differently in respect of certain issues (e.g. about social justice). Such a learning–action menu clearly ranges from education to training – with a little bit of conditioning on the side.

5.3 Case Study

What follows now is a brief exploratory case study inspired by a local membership Non-Governmental Organisation (NGO) (hereafter called ‘the Organisation’) whose remit is to enhance biodiversity in its locality, and with a mission to draw the public into actively participating not only in the work of the Organisation (e.g. through using facilities and volunteering time), but also through changing how they live to ensure a sustainable future for wildlife and people.

In the Organisation there are many different professional roles and kinds of expertise, for example, conservation scientists, land managers, nature reserve wardens, communicators, fund-raisers, educators, trainers, and community outreach workers (not forgetting managers, accountants, secretaries, trustees, etc.). Whilst there is a tendency to see such roles as separate, all are actually part of an integrated whole, working towards the vision of the Organisation and its goals.

Table 5.2 Categories of interest and modes of participant in learning

Categories of interest	Modes of participation in learning
1. Those <i>interested in sharing the joy and fulfilment derived from nature</i> , in order to bring about significant life-enhancing and life-changing experience for learners	Here, participation involves being immersed and confronted with that which can provoke, inspire and affect; there is something of the waiting empty vessel idea here: nature as instructor, as expressed by Romantic poets such as Wordsworth
2. Those <i>interested in the study of the processes of nature</i> in order to understand, or to teach about them	The learning here is largely cognitive (and then may be pedagogical) and may well involve the sort of contact with nature outlined in [1]; it may involve social or individual engagement with nature, but will be focused on acquiring certifiable knowledge, understanding, and skills that will enable participation in society in appropriate ways
3. Those <i>using nature as an heuristic</i> to foster the development of knowledge, understanding, skills, and character, which, although situated, are transferable to other contexts and through time	Such heuristical devices demand involvement – a willing participation in order to acquire knowledge, etc.; transference to novel contexts is then possible through further participation
4. Those <i>using the natural and/or built environments as heuristics</i> to achieve conservation and/or sustainability goals	Although more narrowly focused than [3] and not necessarily involving novel contexts, learning is unlikely to be achieved without active participation by those involved; further, such learning is typically expected to enable participation in conservation/sustainability projects
5. Those <i>advocating/promoting individual behaviour changes</i> in order to achieve conservation/sustainability goals	Where specific behaviours are sought as, for example, in social marketing, the learner's role is to take part and (in effect) do as instructed; such limited scope for involvement suggests that extended participation will be unlikely
6. Those <i>advocating/promoting particular modes of social change</i> in order to achieve environmental/conservation/sustainability goals	Here, participation involves a degree of induction into the insights of the teacher. Where techniques to remove 'false consciousness' (Braybrooke 1987) are in use, participation is not even-handed
7. Those <i>using environmental, conservation and/or sustainability issues as contexts</i> for the development of skills and knowledge related to the exercise of democratic social change	Given that such endeavours might reasonably involve the practice of such skills by learners, it is here that levels of participation might be expected to be very high
8. Those <i>promoting nature as a metaphor for a preferred social order</i> – which may be 'cooperative' or 'competitive', according to world view	Though superficially similar to [1] in the sense of nature as teacher, here nature cannot be expected to do the job unaided; nature needs to be interpreted and its ideas persuasively presented; the participation involved is close to that required in [6]; note how very different messages may be presented; anything from 'learn to compete at all times' to 'learn to cooperate at all times' – in each case because it is <i>natural</i>

(continued)

Table 5.2 (continued)

Categories of interest	Modes of participation in learning
9. Those <i>interested in the study of environmental learning</i> (and environmental education) itself	Such people are mainly researchers and participation here will have various meanings – depending on the nature of the research being carried out; action research, ethnography, critical enquiry, and even surveys all involve participation – though very different kinds

Box 5.1 Possible benefits of participating in the organisation

Psychologically

For example, enjoyment, stimulus, succour, contemplation, release, escape, appreciation of nature, shared purposeful activity, mental well-being [these span a number of categories in Table 5.1.]

Physically

For example, fresh air, exercise, fitness, de-stressing, physical well-being

Ecologically

For example, maintaining the Web of Life, regulating the homeostasis between the quality of life and the quality of the environment, ecological well-being

For example, *conservation scientists* might be thought to have (or might see themselves as having) a fairly unambiguous focus on wildlife and biodiversity, maintaining/extending habitat, protecting species, constructing wildlife corridors, increasing acreage under conservation, etc., and this fits very well with the core aims of this, and similar organisations. Biodiversity is an essential aspect of the biosphere that supports human life and civilisation. Thus, the work of scientists and land managers in the Organisation enables participation by a wide swathe of people who benefit from the work of this and other organisations (see Wildlife Organisations UK Office 2001) at several levels, as shown in Box 5.1.

Thus, what conservation scientists do is crucial for people’s lives, both now and in the future and here and elsewhere, as biodiversity enhanced locally is biodiversity enhanced more widely. This anthropocentric view has the merit of ensuring that human welfare (here and now, elsewhere and in the future) remains in view when policy is made and enacted. However, the point, ultimately, of advancing these arguments about participation is tightly focused for the conservation scientist – it is to conserve nature, and not, for example, to make the world more just, or the human species better educated in the hope that conservation interests might somehow be served. Not surprisingly, the Organisation spends a great deal of effort and resource working with landowners and managers on the ground, encouraging, persuading, and helping such individuals and groups to adopt pro-conservation/

biodiversity practices. In this, conservation scientists and land managers are to the fore encouraging landowner participation in pro-conservation schemes.

Educators might be thought to play a different, but still vital role. Box 5.2 shows how they might contribute to the goals of the Organisation (see CEE 1997). Each role is qualitatively different. They get more complex from 1 to 7, offer greater/deeper scope for participation in social/environmental decision-making, and hence become more valuable. Through this transition they also form an increasingly good fit with what people interested in sustainable development do. These seven levels of purpose suggest different learning outcomes and different kinds of educational approaches/methodologies/modes of participation. Of course, it may not be sensible to think of seven separate levels (and/or there may be more than seven). Table 5.3 explores these ideas by examining possible goals for the Organisation and outcomes in relation to those goals, in terms of the indicators, measures, and proxies that it might use to examine the degree of participation that ensues. This is, essentially, a means of evaluating outcomes against goals, and it needs to be stressed that not everything in reality will be as neat and sequential as implied in this table.

All this, however, serves to highlight three major difficulties. The first is that the chances of success (whether in terms of conservation, biodiversity, or sustainable development) are limited because educational interventions rarely seem to be directed at the main issues, rather they address proxies – and sometimes poor ones at that. Thus, educators within the Organisation are much more likely to engage

Box 5.2 Possible contributions to the goals of the organisation

Helping people to:

1. Raise their knowledge and awareness of what the Organisation does, how it does it, and why.
2. Have first-hand experience and engagement: viz., visiting nature reserves, working in local conservation groups, contributing to practical conservation, including developing social/practical/cognitive skills for use in their own lives.
3. Realise what biodiversity is, and how valuable and important it is to all life on Earth, and in particular to human quality of life and well-being.
4. Think how their own lives affect (positively and negatively), and are affected (positively and negatively) by biodiversity issues (historically, culturally, spiritually, psychologically, socially, environmentally, economically, etc.)
5. Consider how they might change the life they lead, helping them understand options, benefits, and drawbacks.
6. Work through such changes, to enhance their awareness and understanding of how their lives are different and the impacts that this has on them, other people, and nature.
7. Work with others to have an effect on how wider social groups and institutions (including government) view such issues.

Table 5.3 Goals, outcomes and degrees of participation

Possible goals	Possible outcomes	Degrees of participation: indicators, measures, and proxies
1. Raising people's knowledge and awareness of the work of the Organisation	<i>Knowledge</i> of what the Organisation does, <i>awareness/understanding</i> of why this is important, leading to <i>involvement</i> and enhanced <i>empathy</i> towards conservation as an idea	Membership and funding from individuals/families increases; people think about the issues and what it means to their lives
2. Encouraging/enabling people to have first-hand experience of the work that the Organisation does and the facilities and experiences it offers	<i>Involvement/activity</i> : visiting nature reserves, contributing to <i>practical</i> conservation and other Organisation activities, being part of the Organisation's work	People get out more; they visit the Organisation's nature reserves and they begin to value what there is and want to conserve it
3. Helping people to realise how valuable and important the Organisation's focus on biodiversity and conservation issues are	<i>Understand</i> that having healthy (and dynamic) ecological systems is important for all species and <i>especially</i> for human well-being, i.e. for <i>sustainable development</i>	People volunteer and get involved, they begin to want to make a difference (to their locality) and improve matters
4. Helping people to think how their own lives affect, and are affected by, biodiversity issues	People <i>understand</i> that what they do affects all other aspects of the biosphere and can see how they benefit from healthy ecosystems, and how their (and other's) descendants will as well	People realise that what they do can make a difference to ecosystem health, and that ecosystem health (and dynamism) makes a difference to human lives
5. Helping people to consider ways in which they might change the life they lead	People <i>think</i> carefully and critically about biodiversity/conservation issues at home, at work and at leisure, and <i>seek to change</i> how they live accordingly	People begin to think that they should do something and have ideas about what they might do in how they live their lives; they begin to evolve strategies for change
6. Helping people support themselves and others as they work through changes in lifestyle and philosophy	<i>Making changes</i> to the way lives are led (from purchasing, to political engagement, transport use, investment, and the like) and shared <i>understandings</i> of what can be achieved (and <i>how</i>); increased <i>skills</i> of analysis, planning, evaluation, and reflection	People can demonstrate progression in how they live towards modes more 'in tune with nature'; they show increasing abilities to analyse and plan, and to work collaboratively
7. Helping people to work with others to have an effect on how wider social groups and institutions (including government) view such issues	Local campaigns are begun or strengthened to <i>influence</i> the thinking and practice of institutions	People see that, whilst what they do and how they live matters, what others do matters more, and take steps to influence institutions and other organisations

people (and to be encouraged to do this by the Organisation) on specific though relatively marginal issues, such as composting and recycling, each of which can readily be accommodated within a normal, business-as-usual lifestyle, rather than attempting to engage people with how they live, and to think about their lives, in a more comprehensive and radical way. They do this for a number of reasons, prominent amongst which is that funding is more readily available for such marginal activities than for more ambitious and admittedly less well-defined (and definable) goals. Another powerful set of arguments which results in a focus by educators on marginal issues (and which substitutes one sort of participation for a more limited kind), rests on a long-standing conviction amongst conservation organisations that funding educators is a relatively poor use of resources (Fien *et al.* 2001). In part, at least, this is because, though results from educational work may be enduring, they are uncertain and long-term. Other uses of time and money, such as lobbying or campaigning on specific issues or information dissemination about practical tasks, can offer quicker and much more measurable returns.

The second difficulty is that it is quite clear that the correspondence between more education on the one hand and more conservation on the other, is at best imperfect, even when expressly targeted in the way outlined above. This is partly because an education which places any value at all on conceptions such as autonomy or independent thinking must allow for the possibility that educated individuals will elect to take risks, value short-term over long-term considerations, deploy environmental assets for the purpose of securing competitive advantage for themselves or their families/communities (perhaps in the interests of justice), and/or prefer human-made to 'natural' surroundings. It is also because many other factors, apart from what particular groups of learners think and/or believe, can determine actual outcomes in the environment. In consequence, it seems increasingly and properly accepted that attempts to obtain predefined conservation (or sustainability) outcomes from particular educational interventions are unlikely to be successful, except through good luck – no matter how participative an education is on offer. The issue here, perhaps, is to be alert to possibilities and to intervene to take opportunities as they occur, thus maximising the chances of success. As Foster (2005:13) notes:

[I]t must surely by now be obvious to anyone confronting the issues without illusions: that a sustainable human future, if it comes about at all, will come about essentially *by chance* – or, at best, through the quality of our responses to the chances which present themselves.

And, as Foster goes on to argue (p. 133), although we may be:

At the mercy of such happenstance, we can nevertheless strive to make our own luck: not just by continuing the vital work of building sustainability understanding and practice where we can, but also – and crucially – by ensuring that we build the optionality, social intelligence and heuristic learning capacity to apply our knowledge adaptively and creatively in situations of perhaps extreme turbulence, and at comparatively calmer junctures to seize the unattended favourable opportunity, the suddenly available option.

Here, of course, the need for participation is writ large.

The third difficulty is the considerable tension contained within Box 5.2 and Table 5.3. Here, the degree to which the learner's participation is devoted to the Organisation's prime (and local) goals (which may include social ones such as more

recycling/composting and lower energy/water use) changes rapidly from 1 to 7, to a focus on social/global concerns. The irony here is that the more the Organisation allows and enables this sort of personal learning, and the more successful it is, the less likely it is that it will directly benefit itself. We return to this dilemma later.

To illustrate these issues, we now look at the Organisation's reported activities to members (and the nature of the participation these involved) over one recent three-month period (Table 5.4).

It will be seen from this (opportunistic) analysis that, setting aside participation through financial donation (which is, of course, an important activity), the majority of ways in which people are engaged are found in roles 1 to 4, as set out in Box 5.2 (shown in the left-hand column in Table 5.4). There is considerable challenge for

Table 5.4 Activity, the organisation, and participation

Box 5.2 roles	Activity reported	Nature of participation by members and others in the activity
1	Report on the AGM	<ul style="list-style-type: none"> • Members attended the meeting
2	Practical conservation work	<ul style="list-style-type: none"> • Volunteers for manual work
2	Wildlife surveys and observations	<ul style="list-style-type: none"> • Members take part
2	Guided walks	<ul style="list-style-type: none"> • Members take part
2	Encouragement of getting out in Winter to see wildlife on an Organisation reserve	<ul style="list-style-type: none"> • Individuals and families encouraged to use the Organisation's facilities for enjoyment and edification
2	Practical skills classes; e.g. composting, growing plants	<ul style="list-style-type: none"> • Members take part
2	Award of lottery grants to the Organisation to fund land acquisitions and to manage conservation activities	<ul style="list-style-type: none"> • Purchase of lottery tickets by people (many of whom participated unwittingly) • Donation of time by volunteers to provide 'in-kind' contributions • Financial donations by individuals and companies to match lottery funding
2	Recording wildlife in the region	<ul style="list-style-type: none"> • Volunteers to record wildlife (especially indicator species) in specific areas
2	Restoring industrial land to a meadow	<ul style="list-style-type: none"> • Practical clearing activities by volunteers • Financial donating by individuals and companies
2	Encouragement to organise participatory projects locally, to get involved with Organisation activities, and to volunteer	<ul style="list-style-type: none"> • Organisation staff provide information and support • Everyone is encouraged to get involved under a 'saving the planet' slogan
3	Illustrated talks	<ul style="list-style-type: none"> • Members take part
4	Encouragement to take more exercise, be more energy efficient, buy green electricity and local food/milk, reuse paper, make compost (and encourage others to do these), in order to reduce climate change, and its adverse effects on conservation	<ul style="list-style-type: none"> • Organisation staff provide information and support • Everyone is encouraged to get involved under a 'saving the planet' slogan

(continued)

Table 5.4 (continued)

Box 5.2 roles	Activity reported	Nature of participation by members and others in the activity
4	Defeating a proposal to build on a conservation site	<ul style="list-style-type: none"> • Lobbying by the Organisation • Lobbying by individuals
-	Recruiting volunteers	<ul style="list-style-type: none"> • The Organisation employed someone to increase the number of volunteers
-	Opportunities provided by the reform of the EU’s Common Agricultural Policy	<ul style="list-style-type: none"> • Organisation managers work directly with landowners • Landowners can take part
-	Fund-raising walk/run for the Organisation	<ul style="list-style-type: none"> • Taking part with sponsorship • Volunteering to support walkers/runners
-	Assisting the production of a television programme to encourage people to get outdoors and look at wildlife	<ul style="list-style-type: none"> • This was in support of a communications exercise (television programme)
-	Books for sale with a percentage of income going to the Organisation for dedicated conservation work	<ul style="list-style-type: none"> • Financial donation through purchase

such organisations to shift the emphasis away from awareness-raising, practical skill development, and marginal (if fashionable) activity to the deeper kinds of considerations that many commentators now suggest are necessary (see Foster 2005; Sterling 2001). Sterling sees the current situation as a crisis in which our habitual ways of thinking limit our ability to cope with problems positively. He argues for radically different thinking within an ‘integrative, holistic, systemic, connective and ecological’ mode (Sterling 2001:61) and advocates a change from a mechanistic educational (and learning) paradigm to a ‘more humanistic, democratic and ecological (holistic)’ one which focuses on human–ecological values. For Sterling, the way forward is to focus on ‘third-order learning’ (transformative learning) which is ‘creative and involves a deep awareness of alternatives worldviews and ways of doing things’ (Sterling 2001:15). It is this sort of approach which is increasingly represented as we shift from Roles 1/2/3 to 4/5/6 in Box 5.2. Sustainable development and sustainable living are seen essentially as a process of learning with sustainability as the context for the learning. A similar notion can be found in Scott and Reid (2001:24) who propose that significant personal transformation happens when individuals start ‘to think about their lives in relation to sustainable development, and thus think about sustainable development itself, not in the abstract, but in the crucible of everyday decision-making’.

Nikel (2005) summarises these issues in her adaptation of the ideas of Scott and Gough (2003a). This is shown in Table 5.5 which, in conjunction with Table 5.4 and Box 5.2, illustrates that the bulk of participatory learning activities actually undertaken by the Organisation are Types 1 and 2, and not the Type 3 approaches advocated by Sterling and explicated by Scott and Gough. The notes in Box 5.3 set out the essential differences between these three types.

As noted above, not only is there considerable challenge for such organisations to shift the emphasis away from awareness-raising, practical skill development and marginal (if fashionable) activity, but there is also something of a disincentive, as such shifts detract from core Organisation goals which tend to be both conservation focused and locally directed.

Table 5.5 Sustainable development, learning, and learning design

Type	Sustainable development problem definition	Role of learning	Role of learning design
1 and 2	Pro-environmental or sustainable behaviour can be specified – either based on perception of sustainable development as caused by environmental conflicts [Type 1], or by social conflicts [Type 2]	Bringing about appropriate (pre-described) knowledge, skills, action	Sustainable development problem definitions can be selected supporting the development of pro-environmental behaviour (adjudicative decision is made beforehand)
3	Pro-environmental or sustainable behaviour can NOT be specified (emphasis on complexity and uncertainty); people’s opinions, actions, and feelings are often confused or contradictory	Bringing individuals to begin to reflect on their perceptions of ‘sustainable behaviour’ in the context of their own and other’s institutional affiliations	Learners have to make adjudication for themselves and there is therefore a need to confront learners with competing problem definitions within changing context and changing affiliation assumptions

Box 5.3 Notes on Types 1/2/3 approaches

Type 1 approaches assume that the problems humanity faces are essentially environmental, can be understood through science, and resolved by appropriate environmental and/or social actions and technologies. It is usually the ‘understanding through science’ that is seen as the clever bit of this, and it is often assumed that learning will simply lead to change once facts have been established and people told what they are. Type 1 approaches see learning as a tool for the achievement of environmental maintenance where people turn objective knowledge into social action. This can be an effective approach when the scientific facts *can* be clearly established, and when there is wide agreement about the desirability or otherwise of the consequences of action or inaction. However, instances of failure are far more common (Kollmuss and Aygeman 2002).

Type 2 approaches assume that our fundamental problems are social and/or political, and that these problems produce environmental *symptoms*. Such

(continued)

Box 5.3 (continued)

fundamental problems can be understood by means of anything from social–scientific analysis (at one extreme) to an appeal to indigenous knowledge. The solution in each case is to bring about social change, where learning is a means *inter alia* to:

- Create an environmentally responsible citizenry
- Disseminate the ideas of global (e.g. UN) governance
- Enable bottom-up social change through emancipation of the poor and weak

In Type 2 approaches, the proposed role of learning is to facilitate choice between alternative future ‘end-states’ which can be specified on the basis of what is known in the present. Such approaches may be useful, for example, where there are clear opportunities for citizenship action, or uncontroversial evidence of environmental damage resulting from systematic social oppression. Once again, however, they more usually fail.

Type 3 approaches to learning and the environment are grounded in the notion of the co-evolution of society and its environment (Norgaard 1984, 1994). They assume that the exact nature of many problems may be incapable of precise specification for the foreseeable future. This is to accept that what is (and can) be known in the present is not adequate, and that desired ‘end-states’ cannot be specified. This means that any learning must be open-ended. In Type 3 approaches, therefore, the role of learning is to enable learners to develop their ability to make sound choices in the face of the inherent complexity and uncertainty, and in key respects the indeterminacy, of environmental futures, and so acquire, as Sen (1999:74) puts it: ‘the substantive freedoms – the capabilities – to choose a life [they have] reason to value’.

In relation to participation, although Type 2 approaches may seem more participative than Type 1 ones, and are often hailed as such by practitioners who favour them, we think that Type 3 approaches have to be inherently more participative as these give the learner a central role in setting agenda for learning and action, and value the contribution that differing perspectives bring to this. Thus, Type 3 approaches are also inherently more educative.

Further, Type 3 approaches seem to be essential if the uncertainties and complexities inherent in how we live now are to lead to useful learning about how we might live in the future.

Finally, if we return to Table 5.1, we can say that, while a range of positions is possible, in both cases, the conservation biologist’s focus can only ultimately be on nature or conservation, and the educator’s on learners and what they do. Each will evaluate the results of any participation differently. Thus, an underlying tension is likely to exist and, from time to time, emerge between them.

5.4 Concluding Comments

We have argued here that there is a continuum of approaches to thinking about how participation in conservation and sustainability initiatives might be brought about through education and learning. At one end lies the view that the educators (or designers of learning opportunities) know best about what to do – and how to do it. Thus, participation is on their terms and in relation to their (existing) values, not the learners’ – and this low-trust approach might be seen both to characterise the Organisation’s work and represent its interests.

At the other end would lie an approach consistent with Sen’s (1999, 2002) view of both rationality and freedom. Here, a major purpose of education is to facilitate people’s development of preferences over what preferences to have. Sen calls these ‘metapreferences’. This is necessarily much more of a high-trust approach where participation is on learners’ terms and in relation to their (emerging or developing) values. Looking again at Table 5.2, it will be clear that some categories of interest are much more likely to promote high-trust participation (e.g. #1/3/7), than are others (e.g. #5/6/8).

This does not always create a dilemma, however. As we have seen in Table 5.3, at particular times and places it may be that the perceptions of learners and educators about what needs to happen coincide. A good example of this within the Organisation is its programme to promote home composting through leaflets, its web site and a newsletter. The Organisation knows about composting best practice and is effective at disseminating this – at least to those who want to know. The learner (the householder in this context) is an expert in the practicalities and limitations of their own context and is able to interpret and implement the advice provided. This is a good example of Type 1 learning approaches whereby simple information, skilfully provided, enables practical conservation/sustainability practice. Similarly, the creation and growth of a car-share scheme (e.g. www.citycarclub.co.uk) for people with the occasional need for a car for journeys where public transport, walking, or cycling just are not suitable, exemplifies a successful Type 2 approach.

And it seems quite understandable in economic terms if a conservation scientist or an NGO Chief Executive is not prepared to commit resources to helping people participate on their own terms, that is, to trust people to use the outcomes of the educational process in ways that make sense to them as social beings – whether as a direct result of participating in the Organisation’s work, or as a result of something more complex – rather than as some kind of agent *for* the Organisation. After all, the scientist or Chief Executive probably have the same bottom line to contribute to: one that sees conservation outcomes and impacts as *the* priority. If you can do this *and* enable the public to learn (especially if it contributes to Organisation goals on your terms/values), all well and good (Figure 5.1).

However, this calculus is more difficult for educators inside such an NGO. Not to enable learners to learn on their own terms and in relation to what they value, might be seen as a mark of impoverishment and failure in an educator – whatever your employer tells you is for the best.

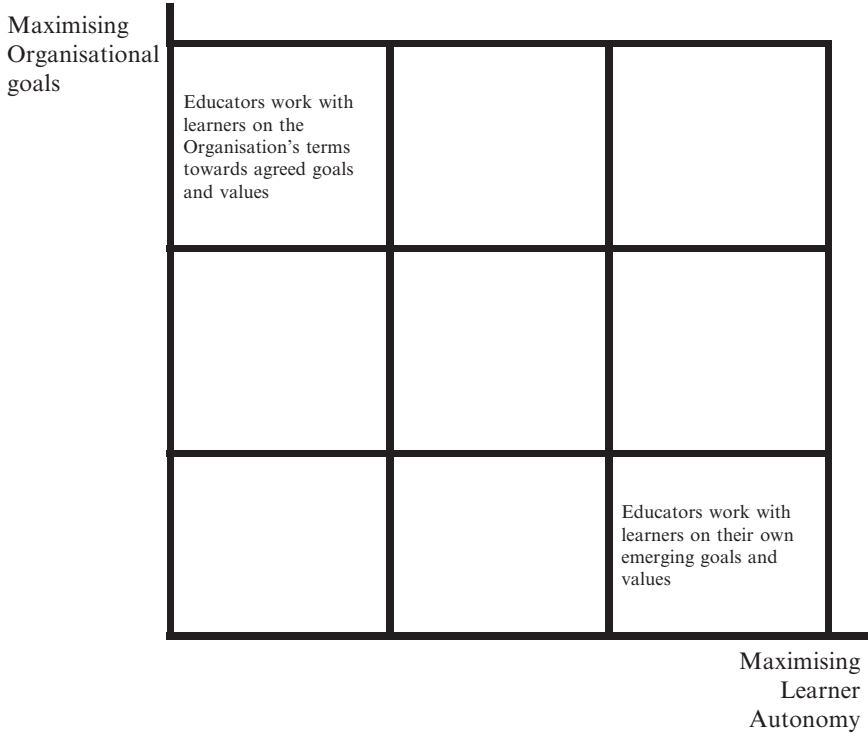


Figure 5.1 Exploring tensions between NGOs and their educators

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