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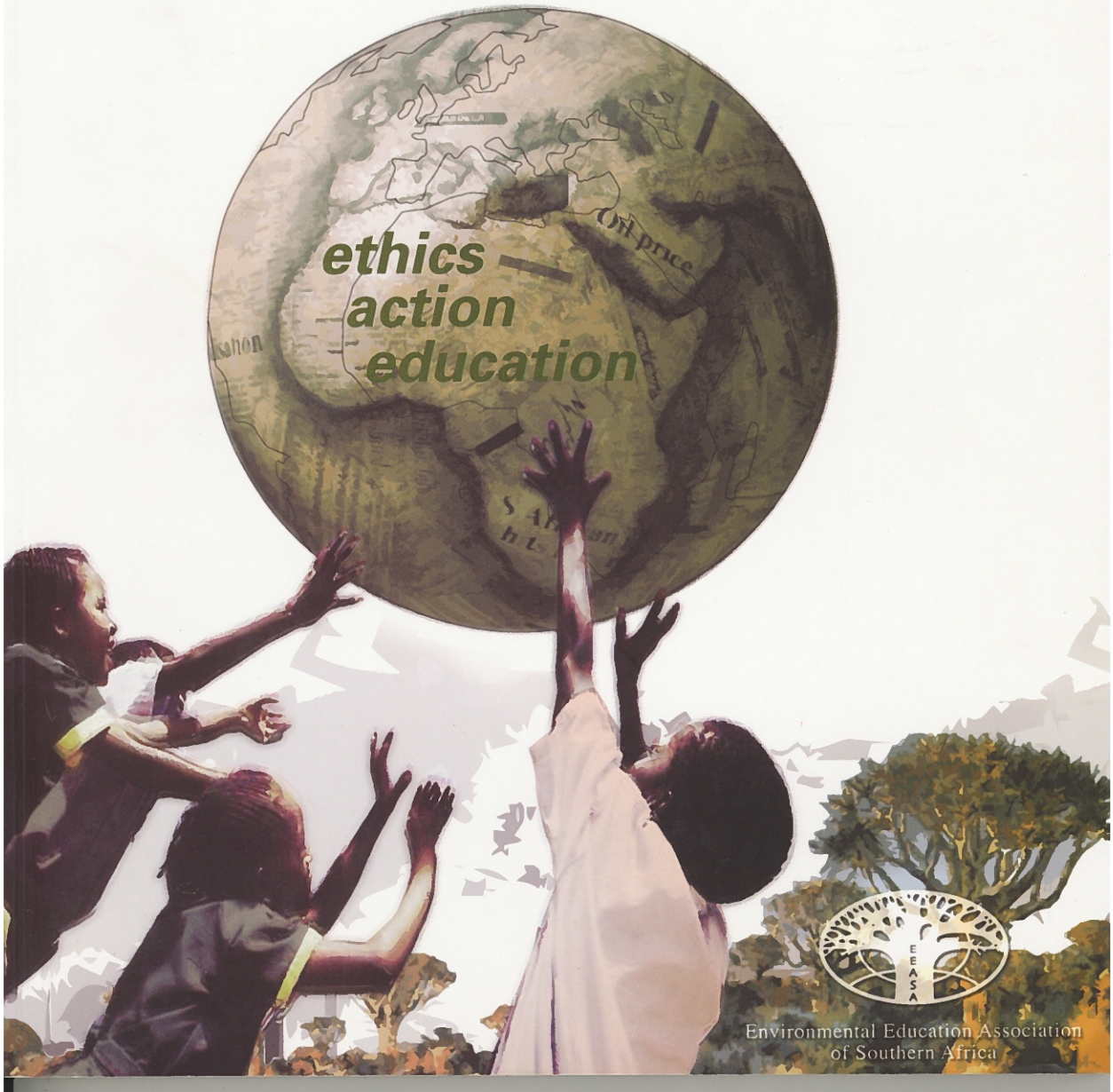

Environmental Education Association
of Southern Africa

Editorial:
Rhizome[1] connections...

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When writing an editorial for a journal, one is faced with many different questions. What should the focus be? What are the authors saying? What does the journal (as a whole) say? What are the conversations that are emerging amongst the papers? Are there any 'threads', any contradictions, any interesting perspectives, any challenging voices? As you run an 'editorial eye' over the papers with these questions in mind, you realise that yes, there are all of these things – there are threads, contradictions, interesting perspectives, challenging voices – and all of these 'say something' when assembled in one edition.

So what does this edition of the *SAJEE* say? In using 'rhizome connections' as a frame for this editorial I 'imagined' *interactions* as Noel Gough and Leigh Price note in their paper (this edition):

> The word 'interact' infers that different components act *on/with* each other, like billiard balls. We prefer to imagine that reality and narrative are *mutually constitutive*..., because *constitution* (as both noun and verb) does not necessarily deny the singularity of *constituents*. (Gough & Price, this edition.)

In writing this editorial, I have found three 'rhizome connections' that threaded and twisted their way across this edition of the EEASA Journal. In highlighting and picking up on this frame, I, like Noel and Leigh, '... imagine a multiplicity of realities and narratives mutually constituting themselves like a tangle of rhizomes' (Gough & Price, this edition), and I imagine the journal playing a role in enabling narratives and realities in environmental education to mutually constitute themselves.

In exploring the mutually constitutive potential of these journal papers (and their constituent realities), and to open the possibility of interactive readings of these papers, I shape the rest of the editorial through a discussion of the three 'rhizome connections' that I identified:

- Recuperative, relational epistemologies.
- A deepening criticality evident in re-examinations of assumptions and ideals in postcolonial contexts.
- A heightened awareness of the role of education in sustaining life and livelihoods in contexts of poverty and risk.

I will not therefore introduce each of the papers in consecutive order, as is 'traditional' in journal editorials, but will rather engage some of the rhizome connections that work their way

through this journal. In doing this, I invite you to read all the papers carefully, with intent to engage these and other connections – *as mutually constitutive interactions* – evident in environmental education processes and discourse.

Rhizome One: Recuperative, Relational Epistemologies

There are a number of papers in the journal that reflect a trend in environmental education towards deliberating recuperative, relational epistemologies. In their paper addressing the near-schism between those that appear to be antagonistic to post-structuralism and deconstruction, and those that find them generative in their inquiries, Noel Gough and Leigh Price go right to the heart of human inquiry by questioning the most commonly held assumption in the research enterprise – that the social sciences require a different methodology from the natural sciences. Through giving attention to relativist (constructionist) epistemology and a stratified, realist ontology – which assumes a relational account of ontology – they suggest the same basic methodology for both the social and natural sciences, arguing that '... society and humans mutually transform/reproduce each other, just as nature and humans mutually transform/reproduce each other'. In doing this, they address over-simplified dialectics between 'constructionism' and realism which has shaped much human inquiry (including environmental education research).

In a similar, yet different way, Tšepo and Chaba Mokuku and Charles Namafe, through their two papers focussing on indigenous knowledge and metaphor, open deliberations on relations between the real and constructed in African cosmologies, and how environmental discourses have come to be constructed in particular ways in African contexts. Tšepo and Chaba Mokuku raise discussion on the limitations of working with oversimplified dichotomies that exist between conceptions of 'Western' and 'Indigenous' knowledge. At the same time, they illuminate the centrality of relational epistemology and a combination of realist/spiritual ontologies in indigenous ways of knowing as they explore local knowledge on conservation and monitoring of biological resources amongst the Lesotho Highlands communities. Charles Namafe's paper illustrates the close relationship between the material reality of flooding and the social constructions of this material reality (through metaphor and culture), and how these are mutually constituting amongst the Lozi-speaking people in Zambia.

Daniel Babikwa's piece on re-conceptualising power relations is particularly interesting as it, through working with a deployment notion of power (drawing on Foucault), articulates the relational way in which power circulates in development projects. His paper considers the material effects of the circulation of power in a rural agricultural development project in Uganda, again illustrating the mutually constituting nature of material reality and social constructions that emerge and change within that reality.

This theme is also evident in the debate opened in the Viewpoint paper by Alistair Chadwick and the two responses provided by Eureta Rosenberg and Johan Hattingh, on how we interpret 'environment' and sustainable development, and deploy these contructions in response to the 'realities' of various social and ecological issues evident in southern African contexts of poverty and risk. Both Rosenberg and Hattingh point to the epistemological and ontological errors and the risk inherent in recent trends towards 'separating out' the social from interacting socio-ecological

processes in environmental education discourse practices. Hattingh links this to a similar trend in sustainable development discourse which 'separates out' the social, economic and ecological as three 'separate' terrains for practice. The opening keynote paper by Danie Schreuder also addresses this theme, as he, through his autobiographical account, illustrates how environmental education praxis is relational and recuperative – it involves intertwined connectedness between life and society, the world, how we see and describe the world and what we do in the world.

These papers together have the potential to be mutually constitutive of a re-orientation in methodology and thinking in environmental education in southern Africa. However, in considering this fragile emerging trend in environmental education research in southern Africa and elsewhere, we can still run the risk of 'becoming participants in dubious dialectics between naïve realism and equally naïve constructionism/constructivism' (Gough & Price, this edition). The scope and the scale of the social transformation challenges and associated methodological and intellectual challenge in environmental education research is alluded to in Gough and Price's paper, in Babikwa's paper, in Jackson's paper and in Hattingh's illuminative response to Chadwick's Viewpoint paper (amongst others). Jackson eloquently reflects on this challenge in his paper, in which he describes the seeking of a more 'effective, realistic Indian environmentalism'. He notes that in this process the object of their quest changed and metamorphosed into something much wider and deeper, notably 'the need for entirely new ways of thinking about our human situation – globally'. He argues that one of the strategies associated with this re-orientation is working with and learning from community educators, children and community members in local community contexts, and that this requires a deepening understanding of the 'workings of the cosmic order as it manifests itself in our local ecosystem and community affairs' (Jackson, this edition).

Rhizome Two: A Deepening Criticality Evident in Re-Examinations of Assumptions and Ideals in Post-Colonial Contexts

A number of papers in this journal show evidence of a deepening criticality in environmental education research. Daniel Babikwa's paper focusses on the tensions, contradictions and inconsistencies in community-based environmental education programmes, and he considers critically the role of what he terms 'defective educational theories' in shaping community-based environmental education programmes. Through detailed descriptions he illuminates the way in which theories and philosophies are rendered defective when applied inappropriately in given contexts. The paper illuminates how critical theories often make sweeping assumptions about power and powerlessness, oppressor and oppressed. He reveals the inadequacy of these dialectial perspectives for describing power-related issues in environmental education processes. His paper presents insight into the ideological nature of education, and he argues that educators should remain critically aware and reflexive of their educational ideologies. This theme is developed in great depth in the keynote paper by Schreuder, in which he illuminates the significance of a critical reflexive stance to educational ideology in environmental education.

This 'rhizome connection' is also evident in the papers by Georgina Frölich and Cheryl le Roux, in which they are critically reflexive of the tutoring processes in the Namibian

environmental education certificate course programme, and they argue for a re-examination of the way in which tutoring is supported in the context of the course. The paper by Iris Chimbodza, Jan van Ongevalle and Manasa Madondo working in the St^{2}eep programme in Zimbabwe also reflects an interest in criticality and re-examination of practice. They describe how a participatory action research process, involving ongoing action and reflection in context, has shaped their ways of working together, and they consider the value of this process in enabling ownership and a sense of empowerment. In opening the space for further criticality in their practice, they begin to explore the relationship between project, context and donor and the longer-term sustainability of their programme.

Rahema White, in her paper, deliberates critically on the paradox that arose between the participatory reflective approach promoted by a development project along the Wild Coast in South Africa and the technicist ethos of the development programme that was required to 'deliver training to targets'. She suggests a pragmatic approach to resolving the tension, and suggests that in future such tensions should be 'acknowledged and exploited positively', requesting a re-examination of how approaches to education articulate with developmentalist logic.

The Viewpoint paper by Lesley Le Grange seeks to critically engage with a trend in environmental education discourse towards favouring a concept of 'environmental learning'. He discusses this critically in the light of an international trend towards adoption of a 'language of learning', and argues that uncritical associations with this broader 'language of learning' in environmental education creates associations between environmental education and the discourse of performativity characteristic of neo-liberal models of change, which, paradoxically, are contributing to the environmental crisis and increased risk and vulnerability in southern Africa. He argues for a deconstructive re-examination of this emerging trend in environmental education in South Africa.

Like Le Grange, Gough and Price, in their paper, argue for the important role that deconstruction plays in allowing us to ask questions about how our words, among other things, are transforming and reproducing our reality in ways that we might not perceive at first reading. They argue that deconstruction is an important and powerful methodology to enable ongoing self-reflexivity within the research enterprise. Katie Farrington and Kate Davis'Viewpoint paper provides a small-scale case study in deconstruction, in which they explore some of the tools of deconstruction as a strategy for developing increased criticality, arguing for a re-examination of the way in which we read media texts.

Noel Gough presents an interesting 'Review essay' on two books that recently commented in two very different ways on issues of transformation/transition in the past post-apartheid/post-colonial South African context. His review alerts us to the fact that we 'cannot be romantic about [the South African transition]' (Fakir, p.112, cited in Pieterse *et al.*, 2004; see also Gough, this edition), especially in regard to issues of environmental justice, rights-based approaches to development, and the conflicts and/or synergies between conservation and development and argues for a deeper criticality by again drawing on Fakir's argument that 'labelling South Africa's 'compromise with capital' as adopting a neoliberal agenda is 'too superficial, dismissive and unsophisticated in being able to provide an understanding of how domestic and international policies and relations mutually reinforce each other' (Gough, this edition). In his essay Gough raises the potential for further critical framings in environmental education research centred on

'the unruly phenomenology of memory and identity' and 'shifting ideologies of developmentalism', while Jane Burt's book review raises questions on how critical (and other) stories are told and recorded in environmental education research.

Rhizome Three: A Heightened Awareness of Life and Livelihoods in Contexts of Poverty and Risk

The third rhizome connection that twists its way across this journal is introduced by Schreuder's keynote paper. In this paper he emphasises the centrality of 'life' in the work of an environmental education practitioner. His story tells how, in a southern African context, 'life' cannot be seen without concern for poverty, livelihoods and social change. This deep concern for the social consequences of poverty and social fragmentation is the central theme of the Viewpoint paper by Chadwick, in which he begins to argue for the need to pay attention to the social consequences of modernity as a 'key focus' of environmental education. In recognising this consequence of modernity, Rosenberg and Hattingh argue, however, that a consideration of 'life' in environmental education involves the *socio-ecological* in its full relational scope and complexity. This theme is, as noted above, is also picked up by Gough and Price, in their analysis of orientations to bioregionalism as a trend shaping environmental education globally, and by Gough in his review essay, where he considers the different fragmentations, framings and representations of poverty, risk and impacts of discrimination in South Africa.

The papers by Daniel Babikwa, Rehema White, Tsepo and Chaba Mokuku, Charles Namafe, Lesley Le Grange, Alistair Chadwick, Eureta Rosenberg, Johann Hattingh, Kate Davis and Katie Farrington are all interlinked through this 'rhizome connection' – they all reflect a heightened awareness of life and livelihoods in contexts of poverty and risk. In considering this theme in environmental education, perhaps Jackson's opening words alert us to the full implications for environmental education processes. He opens his paper by noting, for example that '... a critical examination of the way in which environmental problems are described in Indian school textbooks reveals a disturbing lack of relevance to ground realities... textbooks tend to define environmental problems in terms that suggest that they can be solved by purely technical means... ' (this edition). Similarly, Le Grange warns that environment is not 'in the curriculum', the curriculum merely provides a starting point for explorations of life, livelihoods and risks in context, and Rosenberg notes that:

> Environmental education makes us aware of inter-relatedness: between plants and soils; between people and plants; between people, plants, prosperity and policies; and so on. It helps us understand that our actions are constrained and enabled by socio-ecological circumstances including political history, cultural traditions and economic resources... Environmental education processes must help us develop and deepen our understanding of such wider inter-relationships (this edition).

In closing this 'rhizome inspired' editorial, I am reminded of some words found in the seminal *Post Development Reader* edited by Majhad Rahnema in 1992:

Why We Sing...
(Por que Cantamos)

if each hour brings its death
if time is a den of thieves
the breezes carry a scent of evil
and life is just a moving target

you will ask why we sing

if our finest people are shunned
our homeland is dying of sorrow
and the human heart is shattered
even before shame explodes

you will ask why we sing

if the trees and sky remain
as far off as the horizon
some absence hovers over the evening
and disappointment covers the morning

you will ask why we sing

we sing because the river is humming
and when the river is humming the river hums
we sing because cruelty has no name
but we can name its destiny
we sing because the child because everything
because in the future because the people
we sing because the survivors
and our dead want us to sing

we sing because shouting is not enough
nor is sorrow or anger
we sing because we believe in people
and we shall overcome these defeats

we sing because the sun recognises us
and the fields smell of spring
and because in this stem and that fruit
every question has its answer

we sing because it is raining in the furrow
and we are the militants of life
and because we cannot and will not
allow our song to become ashes

Mario Benedetti, Uruguay, 1979, Translated by D'Arcy Martin
(in Rahnema, 1992:363)

In my view this edition of the EEASA journal engages rhizomatically, critically and courageously, like Mario Benedetti, and reflects the power in his voice and song. As Gough and Price note (referring to key thinkers) '... All of these authors (and many others) evoke methodologies of relationships and connections, of ways of rewording a world in which humans and non-humans are intimately connected in a "real" way without firm foundations or fixity, a 'reality' that is in constant movement, stratified but not polarised' (this edition).

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Endnotes

1 In using this metaphor, I draw on the paper by Gough and Price (this edition), who discuss the transformative potential of Deleuze and Guattari's (1987) concepts of rhizomatics for environmental education research. Gough and Price (this edition) note that working with these concepts invites us to 'do things differently'.

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EEASA 2004 Keynote Address
Environment as Life: The journey of an environmental educator

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Editor's Note

The EEASA Journal will publish a keynote address from the annual EEASA Conference and workshops on an annual basis. In 2004 we were privileged to have Professor Danie Schreuder with us at the EEASA Conference, held in Mooiriver, South Africa. Danie's paper opens this journal with a reflexive autobiographical account of 'being an environmental education practitioner'. Danie shares his story (a distinguished professional journey reaching over four decades) of engaging with life through his educational practice and his pedagogy. It opens this journal, by challenging us all to think deeply about life, and our roles as educators in enabling and sustaining life. Danie's story, as told here in the journal, was received with standing ovation at the EEASA conference, as EEASA members recognised his humility, honesty, scholarship and deep respect for all forms of life, which is articulated through an equally deep commitment to education, and environmental education in particular.

Abstract

In this paper I discuss the constructs environment *and* human existence *in terms of the lessons I have learnt from biological life processes. I draw on personal experiences in my journey as an educator and the influences that local, international and global changes in environmental education have had on my practice and on my understanding of key concepts. I link the development of some of my critical understandings to my personal, lived experiences as a biology teacher in times of political turmoil and change in South Africa. I argue that the development of my key understanding of both environment and education is rooted in my experiences and encounters in the natural world and that, for me, environmental education processes are about appreciating, celebrating and preserving life and the place where life is possible, thereby helping people to become inhabitants and not merely residents. Environmental education is a critical pedagogy that should focus on and critically expose practices, ideologies and hegemonies that oppress and undermine people and their thinking and, in effect, threaten not only the quality of human life, but also the capacity of the earth to sustain life.*

Introduction

Each of us tells stories, and each of us is a story. Not just each of us humans, but each of us creatures – spruce trees and toads and timber wolves and dog salmon. We all tell stories to

> ourselves and to each other... roses do this when they flower, finches when they sing, and humans when they speak, walk, dance, sing, swim, play a flute, build a fire, or pull a trigger. (Robert Bringhurst, 2002:14)

Since I started my teaching career in 1966, the concept of *life* – its complexities and mysteries, the millions of ways in which it is expressed, the astonishing array of adaptations to ensure that it is sustained and propagated – has fascinated me and had a dynamic and constant influence on my practice. Now, towards the end of my teaching career, I have come to a point in my career in environmental education where *life* has become the all-encompassing focus and theme, not only of my philosophy of education, but of my religion and my political views.

In this story of my journey I will stop from time to time, as I did when taking people on field trips, to point out some of the significant moments that have had formative influences on my pedagogy.[1]

Reflecting on all the significant moments that shaped my story was a most rewarding task, and one that I can strongly recommend. Remembering oneself and those significant influences is meaningful, as Gough (1998:67) states:

> We need to examine the stories in which we participate very carefully – to recognize the myths and meanings in their sequences and structures..., and to have a self-critical awareness of how our interpretations of these stories influence our thoughts and actions.

My story is one of a teacher finding his way in a new field with many opportunities, and just as many closed doors. It is one of a slow learner, trying to make sense of the many movements, trends and concepts that came and went like flavours of the month; perplexed by paradigms and paradoxes, trying to keep up with new ways of thinking, and trying to understand the real meaning behind popular terms and labels in order to at least be able to participate meaningfully in the discourse of the day.

During this journey I often stopped to adjust to new situations and scenery, looking around, consulting maps and checking out descriptions of the place. I also found it useful, before resuming the journey, to check with my gut feel and retrace my journey up to a specific point. I suppose this metaphor describes the *modus operandi* of a reflective practitioner who continuously strives to improve his/her work. Like the traveller, the reflective practitioner uses different sources of information – experience and gut feel, empirical ways of knowing and finding, and applying theories (Singh, 1996:352).

So why do I regard myself as a slow learner? Because I, like many other teachers, lean heavily on experience as I reflect critically on significant moments in teaching/learning situations, trying to learn from them and improve my understanding. And this often happened very long after these incidents took place, when I would find support and explanations in literature and in my own research. Theory not grounded in experience, which I could not link to lived encounters, never gave direction to my journey.

In reliving this journey, I realised that my journey as an educational practitioner was crisscrossed by another journey, one through a field of politics, which started while I was

growing up in an era of apartheid. This was a time when I, like many other South Africans, was being lied to by educational, political and religious leaders. Significantly, these journeys became 'joined' into one exactly halfway through my career.

A growing understanding of environment

To give structure to the story, I will refer broadly to the useful views of Lucie Sauvé (2002) where she refers to a number of dimensions of peoples' relationship with the environment that shape their understanding of the environment.

Environment as nature, as a resource to be managed

I believe that my own understanding of the many facets of environment is firmly rooted in the field of biological sciences. My enrolment in biological sciences at university was not really planned, but soon the various aspects addressed in the study of plants and animals – their evolution, relationships, physiology and anatomy – captivated me. In the mid 1960s, one of my lecturers introduced me to ecology, a new field of study of the world of relationships between living and non-living.

This fascination with and understanding of living creatures deepened when I was appointed to the Zoology Department at the University of the Western Cape (UWC) in 1966. For three years I had the most wonderful opportunities to do research, help build a museum and go out on collecting trips with well-known people like Jan Skinner. I was privileged to see, handle and examine live specimens of animals (especially invertebrates) that most people only read about in books.

When I decided to go into school teaching it was because I was well on my way to becoming a researcher – and the prospects, although I found most of the discoveries fascinating, did not appeal to me. I wanted to share my excitement about life and living with others, especially children, and not become an expert on a limited number of species only (as is often the pattern in the 'pure' sciences).

My first teaching post was at Thornton High School. My appointment in 1970 coincided with the inclusion of ecology, biochemistry and some physiology in the matric biology syllabus. Soon I was identified by the Western Cape Education Department (WCED) to serve in in-service training programmes of biology teachers. My responsibility was the ecology section, and this, together with the profound influence of Dr Kampe Smith, laid the foundation for the direction in which my biology teaching would go.

My work as a teacher was rewarded in 1975 when I was promoted, after five years in schools, to a teachers' college as a senior lecturer in biology. By this time I had established a reputation for teaching biology in a new way, moving away from dead and dreary subject content and concentrating on the wonders of life and the fascinating stories of plants and animals in their natural state. Essentially, there was a strong conservationist message in my teaching and an ongoing plea for a greater respect for and love of nature. This would become the focus of my MEd studies, namely a case for a stronger emphasis on the natural environment in the training programmes of biology teachers. The study itself did not make much difference to my pedagogy or my views on the environment, but it did open another door for me.

In 1983 I was introduced to EEASA at its second annual conference in the Hohenhort Hotel in Constantia, Cape Town, where I was offered the new position of Head of Environmental Education at the Cape Department of Nature and Environmental Conservation (CDNEC). This would offer me the opportunity to teach people in the natural setting of nature reserves and share with them with the splendour and wonders of nature.

My time in this new career was spent enjoying the freedom to develop environmental education centres, identifying 'target groups' and developing programmes to effect a deeper understanding and appreciation of nature and natural processes and developing a pedagogy that I preferred.

The time spent at the CDNEC became one of the most gratifying parts of my journey. It was very rewarding to involve a variety of target groups in basic ecological education dealing with the diversity, richness and complexities of our natural environment, and to define a human niche within the ecosystem (Sauvé, 2002:2).

One weekend in the mid-1980s, a group of children from a poor Cape school visited the centre where I was presenting the programme. As was the custom, I handed out a simple questionnaire afterwards to provide me with feedback regarding the educational quality of the programme. To my shock, a substantial percentage of the children responded in similar fashion to the question 'What did you like most about the programme?' The warm showers, having slept in their 'own' beds and the food were among the most popular responses.

I know that, at that moment, I formed a new picture of the concept *environment*. Up until then, environmental issues (for me) were represented by those conditions that pose risks to the capacity of natural systems to support and sustain life, including human life. I then realised that human living means so much more than survival, and that the human *oikos*, our 'home-of-life', is supposed to let *humans live their niche*, or to be *human*. Being in a position, in an *oikos*, where one is allowed, provided with the opportunities to live one's niche as a human being, is what *quality of life* is about. I realised that millions of people are denied this basic right to quality of life due to impoverished environments, which, in turn, are the result of political, economic and social conditions.

This fateful weekend was the point at which my professional journey merged with my political journey, where the niggling questions of my youth about the social injustices towards other people fell into perspective. It was also the point at which I began to understand the enormous power of hegemonic thought and ideology, and how I had been held captive by many ideologies for many years. It was, most importantly, the early beginning of a crude, critical pedagogy that would guide me as a teacher in the future.

Shortly afterwards I was offered a post at the Education Faculty of Stellenbosch University. What is significant is the fact that I had unsuccessfully applied for the same position 16 years earlier, at a time when environmental education was not at all part of my vocabulary – let alone a critical pedagogy. It was only after leaving Cape Conservation that this detour in my journey, this short and eventful time outside formal education, made sense; not only did I now have a much better grasp of the key concept of *environment*, but I was ready to engage with the critical dimensions of environmental education.

Life and Work in an Academic Environment – A New Struggle

Having been appointed as senior lecturer in Biology Didactics, I had the framework for my work with student teachers cut out – I wanted to help teachers develop a deep concern for life, and for the environment in which life is sustained. Together with my students, I explored those powers and hegemonies that impact negatively on the capacity of the earth to sustain life. I was now also ready to help other teachers understand how education can liberate and empower people to improve their quality of life, and to expose those ideologies and educational theories that inhibit the optimisation of human potential. I was openly challenging long-established educational and didactic theories and principles that served as theoretical frameworks in the faculty.

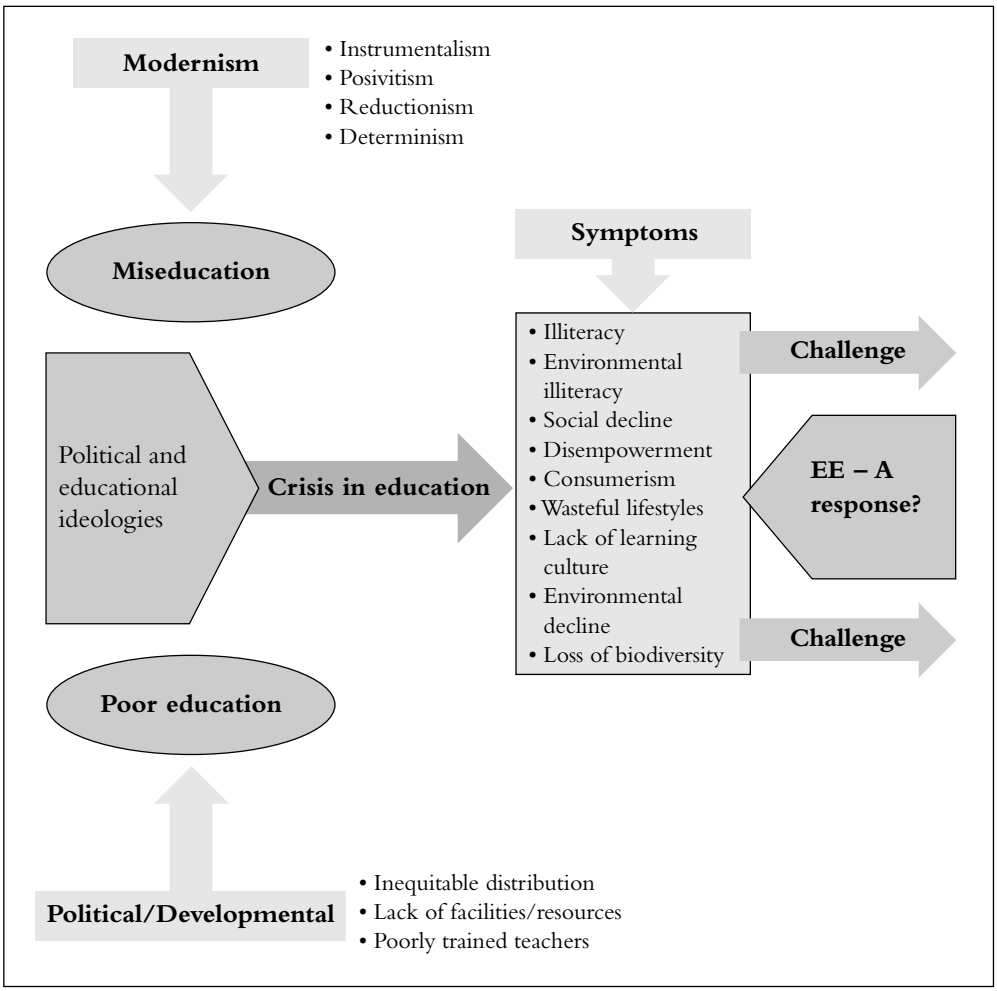
I was very critical towards political, educational and religious hegemonic ideologies and regarded these as the main causes of what I called *bad education* (to which millions of marginalised and underprivileged were subject). *Miseducation* (the education of the privileged minority), on the other hand, was the result of the devastating influence of modernist mind frames on education theory and practice (Schreuder, 1995) – see Figure 1. This, in my opinion, was one of the main reasons for the crisis in education and, in effect, also of the dreadful state of the South African environment (including its political, social, bio-physical and economic dimensions).

My critical, emancipatory pedagogy (Clegg *et al.*, 2003:50) was therefore established on the premise that the current educational theories and practices themselves underpinned and maintained oppression and exploitation on a socio-political level and needed to be interrogated and challenged. In this new academic environment I could, for the first time, really understand how social structures – like the government and universities – reproduced ideologies and thereby determined individual consciousness (Maddock, 1999:45) or, should I rather say, false consciousness. Environmental education as a critical pedagogy, I believed, offered many opportunities for exposing some of the conditions and roots of this false consciousness.

This also explains my involvement in lobbying for a much more prominent status for environmental education in national education policy documents. In 1993, Thinus Joubert of the Department of Environment Affairs and Tourism (DEAT) and I, with the assistance of a few local enthusiasts and the support of the South African Nature Foundation (SANF), established the Environmental Education Policy Initiative (EEPI). This initiative was the forerunner of the Environmental Education Curriculum Initiative (EECI) (1995), which in turn paved the way for the National Environmental Education Programme (NEEP).

The biggest challenge of my job remained, however, to establish environmental education in a particularly conservative academic environment where tradition played a major role and new courses were difficult, if not impossible, to establish. Being one of the oldest education faculties in the country, this Faculty of Education at Stellenbosch University was home to some of the major proponents of Fundamental Pedagogy and, as such, one of the principal allies of the apartheid government, which favoured this approach to education, as it could be used to justify discriminatory practices in schools.

Figure 1. Schematic representation of my views on the roots of the environmental and educational crises, and environmental education as a possible response (Schreuder, 1995)



Environmental education initially featured only in the programmes of the Life Sciences, but I grasped all opportunities, for instance having it accepted as an optional module in the BEd programme in 1989.

In the same year, I was approached by the SANF (later WWF SA) to lead a materials development process to produce suggestion materials to help teachers develop learning programmes focusing on local environmental issues. The 'We Care' materials proved popular and useful, and when, in the same year (1989) the Environmental Education Programme, University of Stellenbosch (EEPUS) was born, we had the foundations laid for a scholarship based on the triadic relationship of research, curriculum development and materials development.

In that same year, a restructuring of the Higher Education Diploma (HED) programme saw my efforts rewarded when environmental education was included as a permanent module – ever since, I have been assured that every single high school teacher leaving the faculty would have some kind of understanding of the importance of the environment as a focus in school programmes. Gradually, environmental education also became part of all the B Prim Ed programmes, especially as a result of the work done by Heila Lotz at EEPUS in the early 1990s.

A new philosophical framework was emerging as the basis of my pedagogy and, as an alternative to the still predominant fundamental pedagogy, I presented the ideas of Braham (1988:11), who regards education as a process of optimising human (species) potential by optimal exposure to the environment. This also tied in with the *niche* concept, as I believed that, in order for humans to take up a functional role in their environment, all dimensions of human potential need to be optimised. Western models of education have obviously not succeeded in this. Likewise, apartheid education denied millions of our people the opportunity to optimise their species potential by creating highly discriminatory and inequitable positions with regard to the provision of teachers and services.

A new responsibility became obvious at this time – my involvement, as an academic, in research and publication. My personal struggle to find suitable research orientations (as was seemingly 'required' by some members of the local environmental education community) is described in an unpublished paper (Schreuder, 1999).

My first venture into research was commissioned by the SANF and the South African Broadcasting Corporation (SABC)[2] (Le Roux & Schreuder, 1990) and, in the design of the project, I resorted to the only model that I felt comfortable with because of my science background – a classical educational experiment. The results were statistically calculated, 'proving' a distinct difference between the experimental groups, one of which was exposed to We Care materials. In my PhD research (Schreuder, 1990), I decided to further develop a technique of generating 'rich' data, namely the use of line drawings to elicit open responses instead of multiple choice questions in a Likert-type research design. Although I was not exactly sure what was meant by 'positivist' research at the time, I had instinctively decided that there must be other ways to generate data, namely by interpreting open responses and listening to people. This somewhat curious mix of positivist/empirical and interpretivist research is indicative of my pursuit of a 'paradigm' within which my work as a teacher and scholar could be justified.

The establishment of the Schools Water Project (SWAP) at EEPUS in 1992, and the extraordinary research and development work done by Heila Lotz with the 'We Care' project and by Ina de Lange with the SWAP project, opened new doors to research (Lotz, 1996; De Lange, 1997). Many research projects followed where teachers and school children participated in investigating environmental problems by studying local streams and rivers (Schreuder, 1994; 1997; De Lange, 1997). This process – working with teachers and students in a participative action research process for the development of suggestion resource materials – became the basis of an EEPUS scholarship for teaching, research and community service.

Environment as the Biosphere, As a Place to Live

Being offered the opportunity to coordinate the development of Windows on the Wild (WoW) materials in South Africa by WWF (US) (the home the WoW materials) in 1995 presented me with a chance to develop my understanding of sustainability and opened up new perspectives for the teaching of Life Sciences in an outcomes-based approach to learning programme development. While the US materials focussed exclusively on biodiversity and its meaning, importance and other aspects, I was given the freedom to draw on existing WoW activities, while developing a resource around a different, locally relevant rationale described in a number of papers (Schreuder *et al.*, 1999; 2000; Schreuder & Waghid, 2000).

The rationale for the South African version was to open windows on natural systems in order to investigate those principles that enable sustained ecosystems, such as diversity, interrelationships, population control and resource use and recycling. Despite initial criticism, especially from the sponsors, the materials, as well as the rationale, were received very well by teachers participating in piloting processes.

Apart from the similarities in the processes of development of the three EEPUS resources, the basic organising concept of all these resources can be described as a *study of place*. In my opinion, *this is a fundamental organising concept for education*. David Orr (1990:50) stresses the difference between educating people to *reside* vs educating people to *inhabit*. While education for the resident is based on the supply of theoretical and abstract knowledge with the purpose of control, education for the inhabitant occurs, in part, as a dialogue with a place. Inhabitants have a much more intimate knowledge of the place where they live and take responsibility for its management more readily. Residents tend to know just enough about the place where they live so they can benefit and exploit. I think that a crucial task of education is to help learners understand that they are part of the natural world, and that this place that we share with millions of other forms of life has limits. And, for this reason, the old and somewhat discarded concept of 'environmental literacy' should remain the basis of all environmental education (Cutter-MacKenzie & Smith, 2003), and a key element of ecological literacy.

I have often been criticised for having a narrow view of environment. I do not think so. It is just that I have learnt so much about life, as processes and as a phenomenon, and about its multitude of expressions, and about how every single form of life is adapted to not only survive, but also to make the place where it lives better – more liveable. And how humans, because they are not properly educated, often make the place where they live worse. This, I still believe, is where teachers of Life Sciences have a special responsibility – a focus on Life, more than Science, and a focus on our common habitat.

Environment as Life

Like many others, I also asked the question about what life is all about – the purpose, the rationale behind diversity, the never-ending striving for survival – until I got to understand the *niche* concept. According to this concept, every species has a niche, a specific functional role for which it is very specifically adapted. This role can always be associated with making a specific

place more liveable. Every single creature, therefore, not only lets life flow *onward* through reproducing its own kind, but also *outward* in creating conditions for life. This, for me, has always been the key to sustained ecosystems – that, by living, every creature contributes to the ecosystem and, ultimately, to the earth's capacity to sustain life.

This also forms the basis of my understanding of human life – our lives not only flow onward, but also outward, making the place where we live better. This is the essence of the quality of human life, which sets us apart from other living creatures, but at the same time links us with all other forms of life – we have not escaped the key role of life and living, which is to create more space for life and living.

For this role we need to be educated in order to optimise our species potential and, apart from the intellectual dimension, we need to focus, in our education processes with children, on the development of all other dimensions of being human. These include the aesthetic, psychosocial, religious and physical (an understanding of our place).

For me, environmental issues (problems, risks) are not only those factors that threaten the earth's capacity to sustain life, including human life, but also those that threaten the *quality* of human life. Whether they are political, social or economic – if the environmental conditions of any community are such that the capacity of the people in that community to optimise their species potential and make their place better is threatened – they become environmental issues. This is also the key to my understanding of the critical nature of environmental education – a continuous, critical interrogation of the popular hegemonies, ideologies, myths and illusions which permeate our society and regulate our religions, education, economies and political systems and are often at the heart of inequalities in communities, human suffering and environmental risks and issues. The development of a critical awareness of these hegemonies is the pursuit of emancipatory knowledge – the basis of critical theory.

Conclusion

The development of environmental education in South Africa over the past 30 years is a fascinating story. I have been fortunate enough to attend environmental education conferences on almost every continent across the globe, but I have always been struck by how the concept has developed locally, not so much as a result of international trends and influences, but more in response to local socio-political developments and people thinking and working together.

There have been many international developments, conventions, declarations and landmark publications that must have had major influences on the direction of the developments in environmental education locally. We have been visited by some of the most prominent environmental educators from across the globe, and many of us have participated in major international events. And yet, the current status and nature of environmental education is home-grown, coming from the soil and the souls of this wonderful land.

My own journey may not be unique or spectacular, and maybe it is pretty boring. All I have tried to do is to show a few snapshots of some of the scenes on this journey, to show how the place where we find ourselves at a particular time can nourish and shape our lives so that we become transmitters of life. I was indeed fortunate to journey through wonderful places where

life flowed into me in astonishing ways, and where I was fortunate enough to be a teacher so that I could let it flow onwards, and outwards.

> And if, as we work, we can transmit life into our work
> Life, still more life, rushes into us to compensate, to
> be ready
> and we ripple with life through the days...
> (DH Lawrence, 1963)

Notes on the Contributor

Dr Daniel Rossouw Schreuder is regarded as one of the founders of environmental education in South Africa. Since the mid-1970s he has been actively involved in promoting the concept and principles of environmental education in formal curricula and developing professional development programmes as well as resource materials. He has spent most of his working life in the field of teacher education, first at Wellington Teachers College and also to date at Stellenbosch University. He was also the first Coordinator of Environmental Education at the Cape Provincial Department of Nature and Environmental Conservation. Schreuder was instrumental in developing environmental education resource materials such as 'We Care', Windows on the Wild (SA): Science and Sustainability and also Schools Water Project (SWAP). He is currently Professor in the Department of Curriculum Studies at Stellenbosch University. Email: drs@sun.ac.za.

Endnotes

1 The term **pedagogy** is used in this text as an educational practice '... in which one acts with the intent of creating experiences that will organise and disorganize a variety of understandings of our natural and social world in particular ways' (Giroux & Simon, 1998:12).

2 'We Care' formed the basis of a series of educational programmes for children, broadcast in 1989/90, and the SABC funded a research project to investigate the effect of these programmes on children.

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Rewording the World: Poststructuralism, deconstruction and the 'real' in environmental education

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Abstract

In this paper we question the desirability of the near-schism between (on the one hand) environmental philosophers, advocates and educators who appear to be antagonistic to, and/or dismissive of, poststructuralism and deconstruction and (on the other hand) those that find these philosophies and methodologies generative in their inquiries. We examine the claims of writers who assert that poststructuralism and deconstruction are anti-realist positions and suggest alternative ways of thinking about these matters that might enable environmental educators who currently take opposing positions to work in more commensurable ways.

Poststructuralism, Deconstruction and the 'Real'

Many environmental philosophers, advocates and educators appear to be antagonistic to, and/or dismissive of, poststructuralism and deconstruction (or anything they associate with postmodernism). Some are downright vicious, including Ariel Salleh (1997) who sees postmodernism as a 'castrated academic philosophy' (p.xi). Others, like Carolyn Merchant (2003), are more politely suspicious: 'Although deconstruction is an important analytical tool, I argue that realism... is an important counter, or other, to deconstruction's focus on language' (p.201). Somewhere between these positions, Charlene Spretnak (1999) offers the following caricature of 'post' scholarship:

> The critical orientation known as 'deconstructive postmodernism,' 'constructionism', or 'constructivism' asserts that there is nothing but 'social construction' (of concepts such as language, knowledge systems, and culture) in human experience... The philosophical core of deconstructive postmodernism is the rejection of any sense of the 'Real' (pp.64–65).

Spretnak (1999) discusses 'postmodern developments' in academia during the 1980s and contrasts what she calls 'the deconstructionist variety (also called "constructionism","constructivism", and "poststructuralism")' with another perspective that (she asserts) 'lacks a widely accepted umbrella term, but is sometimes called "constructive",

"reconstructive", or "restructive" postmodernism' (p.223). In these passages, Spretnak uses at least four rhetorical strategies that distort the views of those she discredits.

Firstly, by asserting that the 'deconstructionist' position is 'also called' 'constructionism', 'constructivism' and 'poststructuralism', she infers that all three of these terms are synonymous with each other and with 'deconstruction'. But we have not been able to find any scholars who identify themselves with these positions and agree that they could be conflated to this extent. The positions that these terms signify have very clear affinities with one another but they are certainly not coterminous.[1] Secondly, she compounds the problem of equating these different positions with one another by applying a single homogenising label to them all. But in our experience the critical orientation that she calls 'deconstructive postmodernism' is not widely 'known' by this name among a majority of scholars who identify themselves with poststructuralism and/or deconstruction. Thirdly, by setting up 'constructive' and 'reconstructive' postmodernism in opposition to poststructuralism and deconstruction she implies that the latter positions are not 'constructive'. The invented term 'restructive' clearly is intended to suggest that deconstruction is destructive. Fourthly, her insinuation that poststructuralism and deconstruction rejects any sense of the 'Real' distorts the positions of many philosophers – structuralists and poststructuralists, constructionists and deconstructionists – who share the view that the objects and meanings that constitute our existential 'reality' are social constructions. We do not interpret these philosophers to be questioning *belief* in the real but *confidence in its representation*. As Richard Rorty (1979) puts it, 'to deny the power to 'describe' reality is not to deny reality' (p.375) and 'the world is out there, but descriptions of the world are not' (Rorty, 1989:5). Representations of the world are products, artefacts or effects of particular sets of historical and linguistic practices.

Our concern is not so much that well-intentioned environmental philosophers have 'got it wrong' when it comes to poststructuralism and deconstruction, although we believe that many of them misrepresent and/or oversimplify the issues. Rather, we worry about the effects of these rhetorical positions circulating within the discourses of environmental education and environmental education research. We also worry that interminable arguments about the absence and/or presence of the 'real' in poststructuralism and deconstruction distract us from more important concerns.

Risks of over-simplified rhetorical positions

If we merely 'counter' anti-realism with realism, as Merchant (2003) suggests, we risk becoming participants in dubious dialectics between naïve realism and equally naïve constructionism/constructivism. We see traces of such dialectics in Merchant's (2003) assertion that: 'The real physical world and the constructed mental world... exist in dialectical relation to each other. Reality and narrative... interact with each other' (p.201). The word 'interact' infers that different components act on/with each other, like billiard balls. We prefer to imagine that reality and narrative are mutually constitutive (a concept to which we return below), because *constitution* (as both noun and verb) does not necessarily deny the singularity of *constituents*.[2]

Merchant's (2003) desire to 'counter' deconstruction with reality tacitly assumes that deconstruction is non-realist. We argue that the majority of 'post' scholars have *never denied* the

existence of a reality 'out there'. Debating this point might have hindered progress on more significant issues, such as how these authors' theorising of the real/constructed interrelationship as dialectical may have been underdeveloped. Like Merchant, these authors *agree* that there is a material reality but, also like Merchant, they merely *add it back* to constructed (or deconstructed) representations. As Lois McNay (2000) writes of Foucault's work:

> The lack of detail in Foucault's consideration of how the dialectic of freedom and constraint is realized in subject formation results, ultimately, in his thought vacillating between the moments of determinism and voluntarism... While Foucault's work does not foreclose an account of agency in so stark a manner as the Lacanian reification of the phallocentric order, it is seriously limited by its conceptual underdevelopment (p.9).

McNay is talking about a similar dialectic to Merchant. However, in talking about freedom and constraint, she has taken a step further in the argument (related to Salleh's assertion that postmodernism is castrated). Specifically she is referring to the way that naïve constructivism prevents agency by implying an antirealist voluntarism,[3] and the way that naïve realism also prevents (individual) agency by implying determinism.[4] To avoid oscillating between determinism and voluntarism, we need to ask *how* material reality conceptually fits into our theorising – a question to which we will return.

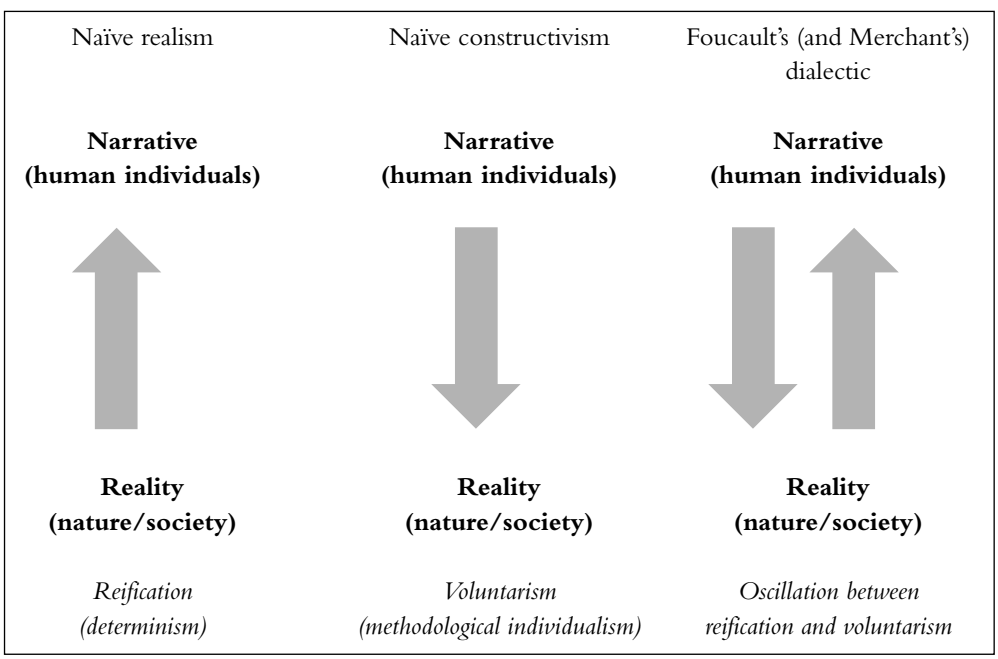
Finally, Merchant's suggestion that we 'counter' deconstruction with reality implies an acceptance of what Roy Bhaskar (1993) calls a 'performance contradiction': when we are being realist, we are being unfaithful to deconstruction; when we are being deconstructionists (her anti-realist version), we are being unfaithful to realism. This performance contradiction can lead to a questionable pragmatics. For example, it might suit us to be naively 'real women' if we are fighting for gender-targeted rights such as long, paid maternity leave, but if we are arguing against social practices that discriminate on the basis of gender it might suit us better to change tactics and claim that distinctions between men and women are 'socially constructed' rather than 'real'. We will argue for the defensibility of one position or the other depending on what is 'good for society' or 'good for the cause'[5] (Denise Riley, quoted in Lather, 1991:29-30).

Sandra Harding's call for 'politically adequate research and scholarship' (quoted in Haack, 1998:97) exemplifies this pragmatic approach to epistemology (what is true is what is good for society), but the difficulty remains: *who decides what is good for society?* Replacing the absolute of positivism with the fideistic absolute of 'what is good for society' seems dubious to us, not least because we recognise this replacement in the philosophies of some of the world's most notorious dictators. For example, Adolf Hitler asserted: 'There is no such thing as truth. Science is a social phenomenon and like every other social phenomenon is limited by the benefit or injury it confers on the community' (quoted in Sayer, 2000:47). Merchant deploys her interpretation of a reality/narrative dialectic to argue for social practices that we agree might improve environmental education, such as pursuing a partnership ethic and 'listening' to non-humans. However, in different hands, this dialectic could be used in a sinister, Machiavellian way.[6]

Conceptualising a narrative/reality interface

Figure 1 summarises three different approaches to conceptualising and representing a narrative/reality dichotomy (adapted from Bhaskar, 1989:77). The relationships depicted in Figure 1 have what Gilles Deleuze and Félix Guattari (1987) might call an *arborescent* logic. That is, Western knowledge is often represented as treelike (as in Linnaean taxonomies), with hierarchically articulated branches of a central stem or trunk rooted in firm foundations. Thus, in Figure 1, we could replace the arrow under naïve realism with a tree in which human narratives are rooted in 'reality'. Naïve constructivism could be represented as a tree in which nature and society are rooted in human narratives. Merchant's dialectic would thus be an orchard or grove of trees of both types, growing together in a mutualistic (or commensal) relationship. We could extend this metaphor by noting that naïve realism and naïve constructivism cannot 'survive' by themselves, because they are so easily understood as untenable. However, as mutuals or commensals they thrive because they apparently make up for their shortfalls by the addition of the other.

Figure 1. Three approaches to conceptualising and representing a narrative/reality dichotomy (after Bhaskar, 1989:77)



As an alternative to Merchant's 'dialectic', we suggest that it might be more defensible to understand reality (whether social reality or non-human, natural reality) and narrative as *mutually constitutive* (see Figure 2). To do this we abandon labels and arrows and treelike structures and imagine a multiplicity of realities and narratives mutually constituting themselves like a tangle of rhizomes.

Figure 2. Reality and narrative mutually constituted in a tangle of rhizomes (drawing by Warren Sellers)

A mutually constitutive approach assumes that reality is 'stratified' (Star, 1991:30). This means that 'things' exist in a real sense but are neither the same as each other nor are they strongly separate, rather they are 'mutually' constituted, distinguishable but not strongly dichotomised. Despite its ontological realism, this approach also assumes epistemological relativism; how we come to know reality is fallible, always in process and dependent on who is looking and the spatio-temporal context (Bhaskar, 1993; 1989). Our stratified, realist ontology assumes a relational account of ontology: *relations precede ontology* (Bhaskar 1993; 1989; Sayer, 2000; Haraway, 1991; 1997; Bourdieu, 1998). A mutually constitutive approach discards the hitherto commonly held assumption that the social sciences require a different methodology from the natural sciences. The social sciences have tended to be associated with anti-realist methodologies[7] because it makes sense that narrative constructs what we mean by 'society' (i.e. there is no social reality beyond narrative), but it might be more difficult to see how narrative can construct all that we mean by 'nature' (a rock will still be there whether we call it a rock or not). Instead, we suggest the same basic methodology for both the social and natural sciences; society and humans mutually transform/reproduce each other, just as nature and humans mutually transform/reproduce each other. Nevertheless, we acknowledge that *how* they mutually constitute each other might be different, as might the techniques we choose to study them (Bhaskar, 1989:82–88).

Do Environmental Educators 'Need' Deconstruction?

Bruno Latour (2004) suggests that a critical analyst should be 'one for whom, if something is constructed, then it means it is fragile and thus in great need of care and caution' (p.246). Caution implies deliberation, an avoidance of rashness and precipitancy, of not judging things by first appearances, and of being alert to possible implications and alternatives. This caution is

evident in the work that Jacques Derrida (1972) calls 'deconstruction', which he insists should not be understood in a negative sense:

> Here and there I have used the word deconstruction, which has nothing to do with destruction. That is to say, it is simply a question of (and this is a necessity of criticism in the classical sense of the word) *being alert to the implications*, to the historical sedimentation of the language we use – and that is not destruction (p.231, our emphasis).

Deconstruction invites us to be suspicious of stipulative definitions and of attempts to claim that words and concepts have essential meanings. A deconstructive reader attends to suppressed tensions or conflicts within a text, and treats all 'natural' categories, essentialist oppositions and representational claims with suspicion. Environmental educators certainly need to be suspicious of 'natural' categories. Since the Earth Summit in Rio in 1991, the language of 'sustainable development' has become a language of power, global capitalism and government, and nature's 'laws' are often invoked as a basis for social and economic policy. Our generations of environmental educators tend to take a relatively benign view of ecopolitics and associate it with left leaning, socially critical thought and action. But during the century that preceded the rise of contemporary (Western) environmentalism in the 1970s, much ecological activism was distinctly right-wing, with many fascist groups and organisations exhorting the merits of nature conservation, small-scale living, energy efficiency, regulation of industry, and so on. For example, Anna Bramwell (1985; 1989) examines the relationship of green ideology to the Third Reich and to reactionary back-to-nature movements in Germany, Britain and North America, and finds that very similar arguments from 'natural' science were used to support nutritional purity and racial purity. The appeal to nature's 'laws' is particularly obvious among advocates of bioregionalism (see, e.g., Kirkpatrick Sale, 1985), an ideology that is championed by a number of environmental educators (e.g., C.A. Bowers, 1993; 1995; 2002; David Orr, 1992). Spretnak (1999) sees bioregions as viable alternatives to the modern nation-state:

> The land masses of Earth are organized into bioregions delineated by watersheds (drainage areas) of the river systems or other natural demarcations. Everyone lives in a bioregion and in the Earth's commons. Pollution and ecological degradation or breakdown occur in a bioregion or in the Earth's larger systems, not some vaguely theorized realm of 'externalities'. Nations inhabit, and evolve with, one or more bioregions... A new global system of coordination could begin with the realities of the Earth: Nation-states would be encouraged to redraw their internal regions to match the contours of their watersheds, as New Zealand has done, in order to help us recover from the modern error of thinking that we live on top of nature (pp.104–105).[8]

Although we see no categorical reason for *excluding* the invocation of nature as a ground for judgement, we remain deeply suspicious of arguments from the natural sciences being used to support social and cultural policies and practices. Descriptions of the physical world are not prescriptions for social life. As Andrew Ross (1994) writes, 'ideas that draw upon the authority

of nature nearly always have their origin in ideas about society' (p.15). Indeed, an extreme 'love' of that which is taken to be 'natural' may be dependent on an (unspoken but implied) opposition to that which is taken to be 'artifice' and, as Luc Ferry (1995) puts it, 'the hatred of *artifice*... is also *a hatred of humans as such*. For man [sic] is the anti-natural being par excellence' (p.xxviii).

Watersheds and landmasses do not delineate and organise themselves into bioregions; we do. Bioregionalism, in its current formulation, suggests that local 'laws' of nature should determine the social life of autonomous communities geared to a bounded biophysical economy. But there are no 'laws' in nature; humans make laws. We fear that bioregionalism might be another variant of biological determinism, and that the autonomous communities envisaged by bioregionalists might repeat the repressive histories of other such fundamentalist communities, with their parochialism, hostility to outsiders and persecution of minorities within them – indeed, the persecution of anyone who does not conform to their idea of what is 'natural'.

Deconstruction allows us to ask questions about how our words, among other things,[9] are transforming and reproducing our reality in ways that we might not perceive at a first reading. Deconstructing Spretnak's text, and finding the shadows of fascist ideology in her words, has helped us decide how to respond to her suggestions. We have little doubt that Spretnak had no intention of reproducing fascist ideology. As we word and reword our worlds, deconstruction is indispensable to our project, not only in helping us think about the words of others, but also in helping us self-reflexively assess our own words.

An alternative to Spretnak's bioregionalism: mutually constitutive bioregions and humans

Being non-naïve realists means accepting that the referent to which we attach the term 'bioregion' has some sort of existence beyond humanity, but it also means troubling the naturalness of our words about that referent. As in Merchant's (2003) 'partnership ethic', we agree that we need to 'listen' to the information we might be given by these bioregions (remembering that *we* call them bioregions; *they* don't). But we suggest that 'listening' can be interpreted as the collection of evidence of the functioning relationship between us and the bioregions in order to produce an always-incomplete explanation of it, never forgetting that it is *humans* who are wording/rewording this evidence.

In this way we will give them a social countenance; as Latour (1999) suggests, we will have mobilised knowledge about them, in order for that knowledge to be useful to us and to allow us to act. Giving the bioregions a social countenance is not necessarily an act of anthropomorphism, but acknowledges that when we describe them, they become equivalents to Donna Haraway's (1991; 1997) cyborgs and thus carry with them *both* our humanness *and* their materiality. As Ferry (1995) explains:

> ... the ambiguity of the enigmatic nature of certain (non-human) beings cannot leave those of us who care about the ideas they incarnate indifferent. The word ambiguity is apt here: these *mixed* beings, *syntheses of raw material and cultivated ideas*, participate equally in nature and in humanity (p.141).

Giving bioregions a social countenance means acknowledging that bioregions and humans have been, and will continue to be, *mutually constitutive*. Our human settlements have been partially constituted by bioregions. For example, the shape of Zimbabwe is constituted in part by the Zambezi River, which demarcates a section of the nation's border. The hydroelectric dam, Lake Kariba, was deliberately situated according to the structural features of the Zambezi River. Both pre- and postcolonial settlements were positioned to have access to water from the Zambezi River Basin. We argue that it might have been wise for the colonisers to listen even more carefully to these bioregions before they imposed their borders. As a result of their poor listening skills, eight southern African countries now share the Zambezi River Basin; it thus requires a complicated joint management agreement culminating in the Southern African Development Community (SADC) protocol on Shared Watercourse Systems (Communicating the Environment Programme, 1995).

But bioregions have not only constituted our nations, our settlements and ourselves; we also have modified (i.e. partially constituted) bioregions through our activities, not least because of the ways we have chosen to describe them. For example, city planners use models of bioregions that were produced according to the geographical conventions of a particular time. In southern Africa, Lake Kariba, one of the largest human-made lakes in the world, is a testament to the ways in which humans have transformed or 'constructed' bioregions, a construction that can only be understood within the discourses of the time, which privileged linear development and (white) man's[10] control over nature.

Nevertheless, the ways we choose to describe/construct the bioregions are not without limit and the bioregions themselves provide that limit. As Umberto Eco (2000) writes: 'being places limits on the discourse through which we establish ourselves in its horizon' (p.51). The way we 'word' bioregions transforms them in ways that allow them to take their place in the social world, which also has implications for how we transform them (as they simultaneously transform us) in the material world. However, our models and words are imperfectable representations, and we cannot assume that because we are attempting to mirror 'nature' – assuming that nature is our safe measure of what is absolutely right – then we too are absolutely right. We know that we must doubt our words, but we must continue to reword the world in order to gain the confidence to act. As Latour (1999) puts it: 'why burden this solitary mind with the impossible task of finding absolute certainty instead of plugging into the connections that would provide it with all the relative certainties it needed to know and act?' (p.122).

Making Rhizomes: Becoming Nomadic Textworkers

Latour (1999) asks us to plug 'into the connections' (p.12) and Pierre Bourdieu (1998) asserts that 'the real is relational' (p.3); Merchant (2003) privileges 'partnerships' and Haraway (1994) argues that we should imagine our work as playing 'a game of cat's cradle'. All of these authors (and many others) evoke methodologies of relationships and connections, of ways of rewording a world in which humans and non-humans are intimately connected in a 'real' without firm foundations or fixity, a 'reality' that is in constant movement, stratified but not polarised.

We are finding it increasingly useful to imagine (and perform to the best of our abilities) modes of educational inquiry informed by Deleuze and Guattari's (1987) figurations of *rhizomatics* and *nomadology* (see, e.g., Gough, 2004a; 2004b). Rhizomatic inquiry destabilises arborescent conceptions of environmental studies and environmental education as hierarchically articulated branches of knowledge rooted in firm foundations and questions the monocultural understandings of knowledge reproduced by the education systems of most Western industrialised nations. Arborescent thinking and writing begins from a fixed or grounded position from which the inquirer/author produces and expresses ideas in orderly directions. Abandoning arborescent thinking means becoming nomadic, allowing thoughts to wander beyond familiar territories and to produce new texts/terrains.

Although it is beyond the scope of this paper to explain how Deleuzean nomadology and rhizomatics offer transformative possibilities for environmental education research, we can provide an example of how they invite us to do things differently. In earlier work, one of us (Gough, 1993) suggested that science and environmental educators should adapt to the natural sciences a proposal that Rorty (1979) makes in respect of the social sciences: 'If we get rid of traditional notions of 'objectivity' and 'scientific method' we shall be able to see the social sciences as continuous with literature – as interpreting other people to us, and thus enlarging and deepening our sense of community' (p.203).

Seeing the natural sciences also as 'continuous with literature' means, to paraphrase Rorty, seeing both science and literature as interpreting the earth to us and thus 'enlarging and deepening our sense of community' with the earth. Thus, Gough (1993) argued that:

> The consequences for science teaching and environmental education are perhaps best understood in terms of storytelling: we must abandon the conceit of trying to tell 'one true story' and, instead, deliberately treat our stories as metafictions – self-conscious artefacts which invite deconstruction and scepticism (p.622).

Gough drew support for this argument from scholars who work at the intersections of literary criticism and science studies. For example, David Porush (1991) argues persuasively that in the world of complex systems revealed to us by postmodernist science – protein folding in cell nuclei, task switching in ant colonies, the nonlinear dynamics of the earth's atmosphere, far-from-equilibrium chemical reactions and ecological perturbations – we must accept that 'reality exists at a level of human experience that literary tools are best, and historically most practiced, at describing... by science's own terms, literary discourse must be understood as a superior form of describing what we know' (p.77).

Although we agree that literary and artistic modes of representation might be more defensible for many purposes in science and environmental education than the supposedly more 'objective' accounts of professional scientists and textbook authors, we would now prefer to go beyond debating the merits and demerits of competing representationalist philosophies. Gough (1993) might have moved away from the fixity and centeredness of a conventional scientist's (or mainstream literary scholar's) point of view, but he could still be read as working within the limits of a grounded position, albeit moving (in Rorty's terms) along a continuum

between literature and science. Becoming nomadic means stepping away from such well-trodden paths, encouraging random, proliferating and decentered connections to produce rhizomatic 'lines of flight' that mesh, transform and overlay one another. Becoming nomadic in environmental education research means liberating our thinking from fixed points of view and judgemental positions on the 'real physical world' and the 'constructed mental world' or any other nodal points of environmental education discourse. As Pat O'Riley (2003) writes:

> Rhizomes affirm what is excluded from western thought and reintroduce reality as dynamic, heterogeneous, and nondichotomous; they implicate rather than replicate; they propagate, displace, join, circle back, fold. Emphasizing the materiality of desire, rhizomes like crabgrass, ants, wolf packs, and children, de- and reterritorialize space (p.27).

We hope that we have planted a little crabgrass in the manicured lawns of philosophical realism, encouraged a few trails of ants to invade the polite picnic of dialectical reasoning, and set some wolves to prey on naïve bioregionalism. We will encourage our children to play in the abstract debates about realism versus representation and delight in their incredulous laughter.

Notes on the Contributors

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Endnotes

1 For readers new to these concepts, we offer a very brief introduction to them here. As Christopher Norris (1996) notes, in linguistics *structuralism* initially referred to the claim that 'truth and reality were constructed entirely in and through language, or by way of those signifying codes and conventions that language imposed upon the raw data of experience' (p.130). Linguistic structuralists such as Ferdinand de Saussure made such methodological decisions strictly as a matter of intradisciplinary technique, but theorists in other fields – notably literary criticism – also adopted their ideas. For example, according to Norris (1996), Roland Barthes equated the 'arbitrary' nature of the sign (a structuralist concept) with an open-ended textual free play: 'So it was that the structuralist dream of method gave way to a heady *post-structuralist* ethos in which systematic 'theory' lost its erstwhile appeal' (p.130). *Deconstruction* is a term coined by Jacques Derrida (1972) to name a process of laying bare the structure of a discourse – of showing how a discursive system works and what it includes and excludes. Deconstructing a text may mean looking for evidence that reveals more than what the author purposely wanted to share

(sometimes referred to as 'surplus meaning'), or revealing a difference between the 'obvious' function of the text and a potentially different function (which often sheds light on the socio-historical positioning of the author). *Postmodernist* perspectives in social inquiry are not a uniform set of shared assumptions but, rather, a loose collection of ways of thinking about how to go beyond modernist perspectives without producing alternative metanarratives. Postmodernist philosophers throw a number of Enlightenment beliefs into radical doubt, including the transparency of language and that claims to authority grounded in reason can overcome conflicts between 'truth', knowledge and power. This skepticism is variously imputed to postmodernism or poststructuralism, which may be conflated with each other and sometimes conflated with deconstruction. Patti Lather (1991) offers a way of distinguishing between postmodernism and poststructuralism that resists 'fixing' the meanings of either concept: postmodernism is 'the code name for the crisis of confidence in western conceptual systems... borne out of our sense of the limits of Enlightenment rationality', whereas poststructuralism is 'the working out of academic theory within the culture of postmodernism' (p.4), although she also admits to using these terms interchangeably (see also Cheek & Gough, 2005). The word 'constructivism' is used in a variety of ways, including the assumption that mathematical concepts are 'real' only if a mathematical proof can be given (see Antony Flew, 1984) and the view, relevant to education, that learning is an active process of constructing rather than acquiring knowledge (see Piaget, 1977). The latter view has expanded to include the idea that people do not construct knowledge in a vacuum but, rather, that construction of meaning is a socio-cultural process (see, e.g., Vygotsky, 1978). *Social constructionism*, a concept credited to Berger and Luckman (1966), was an attempt to move beyond a sociological version of the chicken-and-egg question: does society construct humans, or do humans construct society? *Social constructionism* tries to resolve this conundrum by suggesting that society and humans are just different moments of the same thing, and that they constantly create each other in a continuing 'dialectic'.

2 On the concept of singularity see Derrida (1987).

3 Voluntarism is the belief that the 'true' nature of reality is *will*, in this case effected through narrative. Voluntarism refuses agency because it assumes that we simply need to change our way of speaking about the world to change the world; there is no need for material action.

4 Determinism is the idea that subjectivity and human actions are determined by socio-cultural surroundings; everything we think or do is predetermined by society. Thus, autonomous agency is impossible.

5 An alternative way of seeing men and women is that at any point the category 'woman' has both real and constructed components; it is neither naturally given, nor entirely made up.

6 See Price (2004) for an exploration of how this illicit dialectic has been used by Zimbabwe's government, with devastating effect.

7 One exception is particle physics, in which anti-realist philosophies abound, although mainstream physicists, taking the cue of Niels Bohr, tend to be agnostic with regard to the reality/constructed debate. Significantly, Merchant (2003) draws inspiration from David Bohm, who takes a stand towards realism, despite this being unpopular with the mainstream physicists. Einstein preferred to see particle physics as still incomplete rather than accept its anti-realist tendencies.

8 Spretnak oversimplifies the relationship between New Zealand's internal regions and watersheds. We assume that she is referring to New Zealand's Regional Authorities, which evolved in the 1980/90s

from the former Water or Catchment Boards that were formed in the late 19th century to manage flood and erosion control. These Regions are controlled by Regional Councils and are concerned mainly with macro environmental and transportation matters. They are thus distinct from City/District Councils, which are concerned with wider ranging local area matters. Bioregions, boards, catchments and councils are all human inventions. We thank a New Zealand colleague, Warren Sellers, for drawing our attention to Spretnak's oversimplification.

9 The addition 'among other things' is important as it avoid voluntarism: it is not just our words that reproduce and transform reality.

10 Our use of non-inclusive terms here is deliberate.

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The Role of Indigenous Knowledge in Biodiversity Conservation in the Lesotho Highlands: Exploring indigenous epistemology

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Abstract

This paper is based on part of a broad study to investigate indigenous knowledge applied by the Lesotho Highlands communities to conserve biodiversity. A questionnaire was administered in 12 villages, to a population of 139 interviewees. It guided interviews on conservation of selected faunal and floral species with various community groups in the highlands: men, women, herd-boys and school pupils. It is illustrated that there are practices and beliefs about certain species that contribute towards their conservation. Through these beliefs species are perceived to have powers to cause certain awesome consequences for humans if destroyed, seen or encountered, and some species are believed to have abilities to communicate some messages to humans. It is argued that these beliefs and practices reflect evidence of the existence of a complex epistemological framework characterised by physical and spiritual interconnections of humans with other species. Some implications of the emergent epistemology for educational and conservation approaches are discussed.

Theoretical Framework

Marimba Ani's (1994) cross-cultural thesis *Yurugu. An African-centred critique of European Cultural Thought and Behaviour* provides useful concepts for interrogating the nature of epistemologies in post-colonial contexts. Postcolonial and postmodern theories have given rise to indigenous knowledge research (Morgan, 2003), which provides rich material for in-depth exploration of coherent indigenous theories and epistemologies. Ani alludes to the majority of non-Euro-American worldviews, such as the African, Amerindian and Oceanic, as typically spiritual and holistic:

> ... they have spiritual bases and thereby reject rationalism and objectification as valued epistemological modes... they do have rationalistic and pragmatic aspects but these do not dominate. These views generate an authentic cosmology, *the interrelatedness of all being*... We who have been educated in European societies have grown up assuming that it is only with the triumph over such worldviews that 'true knowledge' begins (1994: 98–99, our emphasis).

This perspective differs from the reductionist worldview of western science. Drawing on De Lubicz's (1982) *The Sacred Science*, Ani describes the African worldview as characterised by 'revealed' knowledge, a knowledge form that De Lubicz has referred to as 'Sacred Science'. She further draws on De Lubicz to explain that the African worldview is

> ... founded on an irrational basis and therefore not a rational science. It rests on the assumption of a 'common energetic origin of all bodies', an ultimate spiritual source 'which alone is able to animate matter', 'an undefined cosmic energy' (Ani, 1994:99).

This view of knowledge is comparable to the concept of '*ho bonts'oa*', 'to be shown', usually in a dream, in the Basotho traditional medical practice, which provides, for example, a plausible account of how the Basotho came to know about 400 listed species of medicinal plants (Jacot-Guillarmod, 1971).

Based on Vine Deloria in *God is Red* (1957), Ani sees commonality of the Native American world-view with the African:

> In the worldview of the Native Americans, all living things share a creator and creative process and, therefore, relate to one another. Their spiritual quest is to determine the proper relationship that people have with other living things. The universe manifests life energies, 'the whole life-flow of creation'. The person is dependant on everything in the universe for his/her existence. Rather than the determination to subdue nature... 'the awareness of meaning of life comes from observing how the various living things appear to mesh and to provide a whole tapestry' (1994:102).

From this perspective some common key tenets of the African and Native Americans worldviews include connectedness and interdependence of all creation, and presumption of a harmonious relationship between all living things that only needs to be discovered.

Some research work in the African context (Emereole *et al.*, 2001; Fakudze, 2003a; 2003b; Asabere-Ameyaw & Anamuah-Mensah, 2003) provides evidence of the existence of indigenous worldviews as characteristically rational, spiritual and mystical. However, most of the research approaches tend to be 'euro centric' (Ani, 1994:101), which results in simplistically oppositionalising the Western 'scientific' worldview with 'traditional worldviews', often reflecting the latter as 'naïve', 'superstitious' and 'magical'. The overall quest in these studies is to investigate 'traditional knowledge forms' to determine their validity from the scientific viewpoint (Emereole *et al.*, 2001), to establish the extent to which they inhibit or could enhance the learning of science (Fakudze, 2003b; Emereole & Maripe, 2003), and the knowledge is tacitly reflected as inferior to science in that it conditions people's behaviour by instilling 'fear' (Emereole *et al.*, 2001). In general the research reflects indigenous knowledge as archaic, and there is little or no apparent attempt to use the researched indigenous knowledge to articulate coherent theories and epistemologies.

However, some indigenous knowledge discourse has crystallised the nature of the Western modernist epistemology, and Morgan articulates this:

> Western science, ontology and epistemology are underpinned by concepts of universality. Important principles include objectivity, true/false dichotomies, and notions of Cartesian-Newtonian science that *the nature of reality is mechanistic – a series of compartmentalized systems which together combine to form a whole*. Central to this is the belief that any of these systems can be reduced to causally significant parts which can be isolated, manipulated, altered or reconfigured, and that as long as the output is consistent with what is expected then the whole remains unaffected. *Thus reality becomes in essence only those factors deemed causal to an outcome; all else is irrelevant* (2003:38, our emphasis).

Morgan further illustrates how indigenous knowledge differs from Western scientific thought. He describes indigenous knowledge, in ways that parallel Ani's conceptualisation of African worldviews, as 'systems which make no distinction between fields of understanding of the *physical and spiritual*', and '(d)espite its dynamic and diverse nature, indigenous thinking is mostly *holistic and contextual*' (Morgan, 2003:43–44). He argues that 'a new age' of inquiry into indigenous knowledge, began in the 1960s and that it was driven by postmodern, postcolonial theories, as well as Eastern philosophies. The recent emergence of indigenous knowledge research in southern African environmental education discourse – as noted in the works of Masuku (1999), O'Donoghue and Janse van Rensburg (1999) and O'Donoghue and Neluvhalani (2002) – may be seen as a postcolonial resurgence to explore and document valuable cultural practices and knowledge that have historically been marginalised from mainstream institutional knowledge. The research work on which this paper is based was in part inspired by similar sentiments.

Research Methodology

Purpose of the study

The study is based on the assumption that over many years of interaction with their local environment, communities have acquired valuable practical knowledge about the local natural resources and therefore to some unknown extent actively manage and conserve their resources guided by indigenous epistemology. The study therefore sets out to investigate aspects of the prevailing indigenous knowledge in the Lesotho Highlands and its significance in biodiversity conservation. The present paper further attempts to construct worldview(s) underpinning the established knowledge.

Research goals

The broad study goals were to explore the following in the Lesotho Highlands:

- Local knowledge on conservation of natural resources.
- Local knowledge on monitoring of natural resources that could foster the capacity of the communities to monitor and conserve their resources.

This paper forms part of the exploration of the first goal of the study, and is based on only part of the collected data found relevant for the exploration of indigenous epistemology.

Research participants and data collection

A questionnaire was administered in 12 villages to a population of 139 interviewees. The 12 villages were situated in the rugged highlands terrain of the Mohale Catchment area and were selected on the basis of their accessibility to researchers. The interviewees represent 1.9% of the Mohale catchment population estimated at 7 435 (LHDA 1994) and 0.03% of the total Mountain Ecozone population estimated at 480 468 (Sechaba, 2001) at the time of research. Due to the overall homogeneity of language, cultural practices and beliefs within the mountain ecozone of Lesotho, it is assumed that the established findings would largely be transferable to other contexts in the highlands. A questionnaire guided interviews with different key social groups including: men, women, herdboys and schools pupils in the catchment. Respondents were randomly selected and interviewed individually by one of the authors with the assistance of a research assistant, and responses recorded in the questionnaires. The questionnaire was formulated by the authors on the basis of their awareness of the possible existence of the indigenous knowledge of the form investigated. Part of the questionnaire, on which the paper is based, investigated whether there were animals or plants that if when used or killed (*bolaea*) would result in misfortune (*bo-malimabe*), or if when 'seen' (*bona*) or protected (*baballoa*), would result in good luck, (*Mahlohonolo*). This rationality was informed by the authors' awareness of its existence in this context. After mentioning the name of the species the respondents' knowledge on the *food chain* concerning the species was established, and respondents were asked to state what the organism lived on/preyed on and to name its predator (animal that ate it).

Findings

Below is a discussion on several species of plants, birds, reptiles, amphibians and insects that seem to be conserved for biophysical and possibly spiritual reasons. The respondents' explanations on how one might be affected by the use of or encounter with the species are classified in the tables below, under the column 'Possible Conservation Basis/Strategy'. The column on 'Apparent Biophysical Rationale' reflects the interviewees' expressed knowledge on the food chain involving the identified species, and is regarded as the plausible 'biophysical' basis for species conservation.

Plants

Six plant species seemed to be conserved through application of the investigated form of indigenous knowledge. There was no evidence of apparent biophysical rationality, from the interviewees' responses, as a basis for conserving the plant species. However, *Gnidia burchelii* (Moomang) is reported to contain a poison that affects the mucous membrane (Schmitz, 1982), and this could be a basis for the explanation that its use as firewood in the house makes people quarrelsome, and also that its use causes mental illness. The association of the use of *Heteromorpha* sp., Monkhoane, with an adverse impact on livestock, signifies a strong deterrent to use the plant, given the cultural and economic value of cattle in the Lesotho context.

The association of the use of the plants with some form of adverse impact on humans reflects perceived non-physical, perhaps spiritual, connections between humans and flora.

Table 1. Local conservation knowledge of plants

Sesotho Name	English Name/ Scientific Name	Possible Conservation Basis/ Strategy	Apparent Biophysical Rationale*
Moomang	*Gnidia burchelii*	Using it as firewood, especially at home, calls for starvation/brings bad luck/one does not prosper/ causes mental illness/causes quarrels amongst the family. If eaten by livestock they 'dry up'/ 'omella'.	Contains poison that affects the mucous membrane.
Monkhoane	*Heteromorpha arborescens*	If cut and used to hit a cow, your cattle will not multiply/'ha li sa tla khona ho ata' that is, 'lia ts'eha'.	Emits toxic smoke when used as firewood.
Phefo	*Gnaphalium undulatum; Helichrysum odoratissimum; H. splendidum*	If used as firewood, it causes wind/'*e tsosa moea*'.	–
Moferefere	*Senecio asperulus*	Causes bad luck (not specified).	–
Morara	Vines/Capsular fruits	Causes bad luck when used (not specified).	–
Sehloko	*Euphorbia clavarioides*	Causes some form of bad luck (not specified).	–

* The rationale is a postulation by authors drawing from the literature, and not stated by interviewees.

Birds

Twelve bird species seemed to be conserved on the basis of established local knowledge rationales. The apparent biophysical rationale for conserving four bird species is based on their (biophysical) role in the food chain/web. The association of a human with the bird species by bringing about fortune, bad omen and death is also epistemologically significant in that it alludes to the perceived interconnectedness of humans with bird species, in more than just physical ways.

Table 2. Local conservation knowledge of birds

Sesotho Name	English Name	Possible Conservation Basis/ Strategy	Apparent Biophysical Rationale
Khoale	Greywing Francolin	Encounter with it points to a safe journey/'*tsela-ts'oeu*'.	Preys on butterflies, etc. Eaten by people and dogs.
Khoho-ea-lira	Spotted Dikkop	It warns about death ('*e belietsa mokhohlane*), if it is heard in the village. If one kills it, she/he will always have a dry skin/ '*e tla o tlabola ke lefafatsane le sa feleng*'. If one kills it, she/he will die.	Preys on rats.
Sephoko	Owl	Its call warns about/causes death in the family.	Preys on rats.
Mankhane	Bat	Seeing it brings good luck.	Preys on mosquitoes.
Seotsanyane	Rock Kestrel	Seeing it brings good luck.	Preys on rats and worms.
Maeba (a maputsoa/ a thaba)	Rock Pigeons	Seeing them brings good luck (e.g. could get money, visitors).	–
Likhaka	Helmeted Guinea-fowl	Seeing it brings good luck (e.g. could get money).	–
Mokhotlo	Bald Ibis	Indicates time/*O tsebisa motho nako.*	–
Mokhoabane	Black Crow	Seeing it brings good luck (e.g. one may get money).	–
Lengangane	Hadeda Ibis	Its call brings rain.	–
Mafokotsane	Swallow	Indicates rain (*A bolela pula*).	–
Motjoli	Cape Wagtail	It causes lightening (when/how?).	–

Reptiles

Six species of reptiles appeared to be conserved on the basis of the form of indigenous knowledge explored. The word *Mosenene* in Table 3 may loosely be used to refer to either Spotted Skaapsteker (*mosenene-poli*) or Cross-marked Grass snake (*mosenene-khomo*) (Ambrose, 1999). *Mosoa* is usually a name for Brown House Snake or Aurora House Snake, but could also

be used to refer to Spotted House Snake and Yellow-bellied House Snake (Ambrose, 1999). The Brown House Snake has overt biophysical significance in the household, though not suggested by interviewees, by commonly occurring in places where food or grain is stored where it preys on rodents (Ambrose, 1999). *Mokholutsoane-ao-marako* literally means a lizard that occurs on rocks, and seems to refer to the commonest Lesotho skinks, *Mokholutsoane* or Striped Skink (Ambrose, 1999).

The apparent basis for conserving the species is for their role in the (biophysical) food web/chain. It is noteworthy that Rhinkals is lethal, and can eject venom that can cause blindness (Ambrose, 1999), yet it seems to be valued and conserved as a mice predator. The reptiles are also seen as capable of affecting people's lives if seen, encountered or killed, suggesting perceived forms of spiritual connectedness.

Table 3. Local conservation knowledge of reptiles

Sesotho Name	English Name	Possible Conservation Basis/ Strategy	Apparent Biophysical Rationale
Mosenene	Spotted Skaapsteker or Cross-marked Grass Snake	Seeing it brings good luck, e.g.: • Points to a good journey/ *'o supa tsela ts'oeu*'. • One may get a job. • One may have a baby if in need of it. • A woman may get pregnant. • One may get money.	Preys on mice and frogs.
Masumo	Rinkhals/Red-necked Spitting Cobra	Seeing it brings good luck, e.g. points to a good journey.	Preys on mice and frogs.
Mokholutsoane-oa-marako	Striped Skink	If one kills it, one will laugh till one dies.	Preys on house-flies.
Mampharoane	Southern Rock Agama	If killed, the tits of the family cow will develop cracks.	Preys on house-flies, grasshoppers and butterflies.
Checheiki	Cape Gecko	Seeing it brings good luck.	Preys on mosquitoes.
Mosoa	Brown House Snake or Aurora House Snake	If on encounter it shifts into one's way (*soaela ka tseleng*) it points to problems ahead, but if it shifts out of the way (*soaela ka kantle ho tsela*) it points to a good journey.	Preys on rodents.*

* The rationale is a postulation by authors drawing on Ambrose (2001), and not stated by interviewees.

Amphibians

Four amphibians appeared to be conserved on the basis of the investigated indigenous rationality. There is no sharp distinction in Sesotho names for frogs and toads (Ambrose, 2001). The Sesotho name *Marokolo* is used to refer to toads in general, and in some cases to the Giant Bullfrog. The word *Senqaqana* is commonly used for any large frogs and toads. From the literature it seems the word *Letlametlu* may be used for the Clicking Stream Frog, the Bullfrog and the Aquatic River Frog or the Umbraculate Frog, and for the Cape River Frog (Ambrose, 2001).

The apparent biophysical rationale for conserving two of the four species, namely the frog (*Senqaqana*) and the Clicking Stream Frog, is based on the biophysical role they play in the food chain/web. A further plausible biophysical basis for valuing the Aquatic River Frog (*Letlametlu*) is its function as a 'good indicator of water quality' (Mouton, cited in Ambrose, 2001). The apparent valuation of Toads or Giant Bullfrog for 'bringing rain' may better be understood in terms of the croaking of the organisms when it rains, and the association of rain and the organisms with good harvest. The association of the amphibian species with humans in non-physical ways suggests a perceived spiritual linkage between humans with the organisms.

Table 4. Local conservation knowledge of amphibians

Name/ Description	Common English Name	Possible Conservation Basis/ Strategy	Apparent Biophysical Rationale
Senqanqana-se-setala	River Frog	Killing it results in the cow dying or its tits cracking.	–
Senqanqana	Frog	Lightening will strike one's house/home if one kills it.	Preyed on by Hammerhead (*Mamasianoke*)
Letlametlu	Clicking Steam Frog or Cape River Frog or Aquatic River Frog	If one kills it, she/he dries up till she/he dies. '*Le ea o omeletsa o be o fele o lesokokotoana*'.	Preyed on by Blackheaded Heron (kokolofitoe). Indicator of water quality.*
Marokolo	Giant Bullfrog or Toad	Brings rain	Associated with rain and good harvest.*

* The rationale is a postulation by authors, and not stated by interviewees.

Insects

Six species of insects seemed to be conserved on the basis of the indigenous rationality explored. There was no evidence from the interviewees' responses of any possible biophysical

rationale for conservation of all six species. It is not clear in all the cases whether the species could possibly be conserved for any biophysical reasons. The mentioned accounts about the species suggest perceived spiritual connections between humans and the insects, which could constitute the basis for their conservation.

Table 5. Local conservation knowledge of insects

Sesotho Name	English Name	Possible Conservation Basis/ Strategy	Apparent Biophysical Rationale
Seloma-matsoele	Beetle	Brings bad luck when killed.	–
Malehlohonolo	Ants	Brings good luck when seen.	
Maroana	Red Ants	Their emergence in the house means that food must be cooked for the ancestors or bring good luck.	– –
Mohalajoeng*	–	Seeing it brings good luck.	
Kholoabolokoe	Dung Beetle	If found in the house brings good luck.	– –
Ts'uts'ulupa	Black Ant (*Streblongnathus aethiopicus*)	If seen brings good luck.	–

* It has not been possible to identify the common English or scientific name for this species.

Discussion

It seems plausible that the application of knowledge that the people constructed, in relation to the species discussed above, as reflected under the 'possible conservation basis/strategy', conserves them, even in cases where the 'apparent biophysical rationale' was not evident in the interviewees' responses. This knowledge could be so deeply 'embedded' in the culture that the people are unconscious of its practical ecological benefits. It is noteworthy that the aforementioned knowledge concerns a particular domain of indigenous knowledge, as elicited by the questions outlined under the research method above. From this viewpoint there were more species of birds than any other species conserved through the indigenous knowledge, and the amphibian species were the least conserved. However, the amphibians were comparatively the most conserved in relation to the total number of species occurring in Lesotho (See Table 6). There was no knowledge mentioned that seems to conserve fish and mammals. This could be due to the communities' limited interaction with the aquatic species, and the inclination to use mammals as a meat source.

Table 6. Number of species conserved* compared to the total number of species

Classification	Estimated Number of Species in Lesotho National Environment Secretariat (2000)	Number of Species Conserved Through Indigenous Knowledge
Plants	2169	6
Vertebrates		
Mammals	63	0
Fish	14	0
Reptiles	40	6
Amphibians	19	4
Birds	319	12
Invertebrates		
Insects	1 279	6

* As explored in this study only.

Emerging Epistemology

The beliefs about the discussed plants and animals reflect the complex physical and spiritual connection of the people with the natural world. Animal behaviour, calls, occurrence at certain places and encounters with certain species all seem to communicate some messages or trigger certain beliefs, creating a basis for their reverence. The association of some organisms with fearsome consequences if destroyed and providence if seen or encountered, shrouds them with spiritual powers, sacredness and awe, creating a basis for their respect. These credulous, scientifically 'irrational' beliefs about species allude to an integration of the spiritual and biophysical systems. Within the same thought system, organisms seemed to be conserved for pragmatic biophysical reasons, but this rationalistic feature was comparatively limited, and this analysis parallels Ani's (1994) observations that 'rationalistic and pragmatic aspects' do not assume dominance in African worldviews. In this emerging worldview humans and other species are in a 'horizontal web' of interdependent connections. This relationship of species deviates from the dominant Western scientific thought wherein species are hierarchically classified evolutionarily into different families and levels of sophistication, with humans perceived as distinct from and superior to other species. Kassas traces indigenous worldviews to early civilisations:

> The culture of kinship with other creatures on Earth is old, spiritual environmental ethics was part of the ancient civilizations that was fostered through teachings of religions. This may have been subdued through societal transformation, associated with industrialization and urbanization, processes that fostered societal dependence on power-machines and technologies and have apparently blurred the sense of intimacy with, and dependence on nature... (2002:349).

Some Recommendations

As indicated above, the results discussed here are partial at this point in time. However, there are some early indications of emerging recommendations. Educational approaches that foster real and complex integrated spiritual and physical relationships between people and other living things could be explored for effectiveness in biodiversity conservation. This approach would constitute a shift from detached and rather mechanical ways of learning about the relationship between humans and other living things, an orientation informed by the dominant Western epistemology.

It is apparent from this study that Sesotho names, particularly in the case of amphibians and reptiles, tend to lack the specificity desirable for species identification. This could be achieved through collaborative work and dialogue between local scientists and the communities, to construct Sesotho names to complement the indigenous knowledge with the detail of scientific knowledge as part of the process of advancing peoples' knowledge on local biodiversity, and their capacity to monitor and conserve it. This would be an essential step if conservation were to become the prerogative of those who live with and amongst the plants and animals to be conserved.

Further research and documentation of indigenous knowledge that promotes conservation is necessary for a deeper understanding of the knowledge (and associated epistemology) in this context. Given the apparent link between language, worldviews and biodiversity, the promotion of indigenous knowledge for conservation a in postcolonial context could also represent a significant dimension of cultural resurgence.

Limitations of the Study

In view of the fact the indigenous knowledge is contextual and localised, the established knowledge could represent only a small part of similar body of knowledge held by the highlands people, since the study involved inhabitants of a particular locality in the Lesotho Highlands. The discussed findings also need to be understood as partial in relation to the broader goals of the study.

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Flooding in the Context of the Barotse People of the Upper Zambezi Wetlands

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Abstract

Much of the historical and contemporary view of flooding is that it is a hazard which threatens property and life, as well as development and social activity. Whilst agreeing that this view is contextually appropriate to restricted places of the world, it is, however, not universal to all regions of our planet Earth. There are several cultural practices that welcome flooding for various cultural, ecological and geophysical explanations. This paper picks on one such cultural practice, namely, that of the Lozi speaking people of the Western province of Zambia. In this regard the presentation seeks to highlight the garment school of thought in the understanding of floods by using the case and experience of the Lozi-speaking people.

Background

Many of my generation born around the late-1950s, and those on either side of it, were brought up on a limited range of understanding of floods, in general, and the Zambian Lozi (Barotse) flood, in particular. Of these forms of understanding, probably the most used idea of flood in the world was that captured by G.F. White as follows:

> ... it has become common in scientific as well as popular literature to consider floods as great natural adversaries which man seeks persistently to overpower. According to this view, floods always are watery marauders which do no good, and against which society wages a bitter battle (1945:1).

According to this view, floods are an enemy phenomenon, which justifies water to be regarded as an unwanted commodity among hydrological engineers in particular (Butler, 1972). This is despite the point made centuries back by Thales, the founder of the Milesian School of Cosmologists, that ultimate reality is one and it is causally made of water (Burnet, 1961). In short, although floods are sometimes considered to be desirable, the predominant concept of them historically has been that they were 'hazards' which devastated or threatened people and property. In view of this understanding, it was believed that the Lozi (Barotse) people of Upper Zambezi wetlands in Western Zambia shifted from their flooded plains around March/April of each year to upland homes in order to escape from hazardous floods which threatened their lives and property. Such descriptions of the flood experience of the Lozi, and other diluvian

cultures such as the English Fenlanders of 17th century, was rarely realised by scholars and observers to have been largely based on metaphorical vision, in particular. This paper attempts to:

- Contextualise the 'hazard' school of thought by explicating its locus within the enemy metaphorical vision.
- Highlight the 'garment' school of thought in the understanding of floods by using the case and experience of the Lozi-speaking people of Western Zambia.

The Heritage of Metaphorical Vision

It has already been stated at the start of this paper that many members of my generation born around the late 1950s may be inheritors of a particular view of flood. Sometimes, the nature of a heritage is something which practitioners imbibe within their conceptual system often unconsciously and, hence, uncritically. That has been the nature of 'metaphorical vision' which many people in both the developed and developing worlds have been unconsciously operating under, without realising or questioning it.

As author of this paper, I adopt the following definition of 'metaphorical vision':

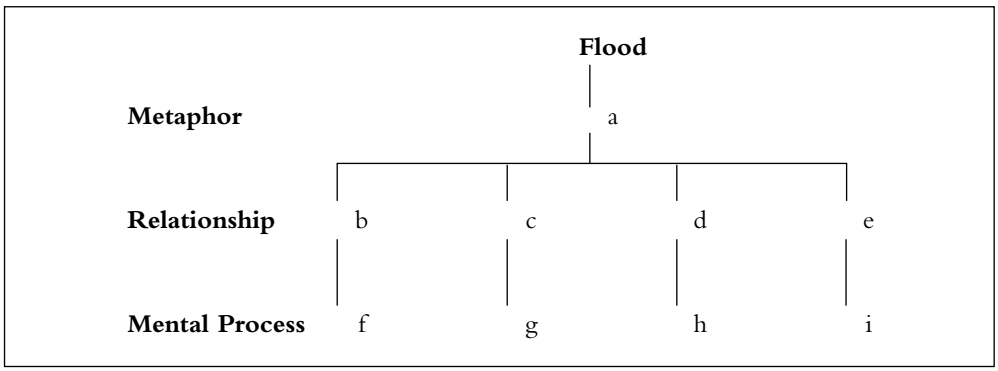
> What I mean by the term 'metaphorical vision' is the tendency for a society to seize upon one metaphor in particular as the central vehicle through which it seeks to comprehend its world. Choice of one metaphor rather than another is highly indicative of the needs and aspirations of that society. The chosen metaphor is exploited for all its implications, around which a systematic world vision is elaborated (Mills, 1982:238).

It is hereby suggested that, in line with the popular and scientific understanding of flood noted above from White (1945), much of the contemporary view of flood is based on the enemy metaphor. In other words, the 'enemy' metaphorical vision is defined in this presentation to be the central idea of the contemporary understanding of flood.

Operational Definition of Terms

A working definition of 'flood' as used in this paper refers to a larger than usual body of water which, at one and the same time during its inundation, radiates a single metaphorical idea which centrally expresses and supports various relationships and mental processes, directly or indirectly reflective of that singular metaphor. This definition can be applied to various terms associated with flood, such as deluge, inundation or freshwater floods and saline (marine) floods. The paper focuses on freshwater riverine floods, specifically those of the upper Zambezi River associated with the Lozi people who are often alternatively referred to as the Barotse people in written literature. Figure 1 depicts the working definition of flood noted above in graphic form.

Figure 1. A flood



Several points crucial to this argument are worth noting from Figure 1. Firstly, there is only a *single flood metaphor* upon which everything else thereafter rests; that is, in terms of relationships, mental processes, institutions and cultural feats. Such a metaphor (labeled as 'a' in the diagram) can be that of the *enemy, garment* (friend) or variants of these dichotomies, namely, *both* enemy *and* garment or *neither* enemy *nor* garment. In as far as garments beautify and support human bodies in various ways, reference to floods as garments in this paper is understood to portray the idea that floods are friendly phenomena to people. In other words, a flood is a friend to people when it covers land and supports land-based activities in various ways. In theory, therefore, four different metaphorical visions of flooding are possible, that is, the 'enemy' and 'garment' as well as the '*both* enemy *and* garment' plus the '*neither* enemy *nor* garment'.

In affirming the existence of these four metaphorical approaches to flood, it is also acknowledged that each of them is valid, acceptable and appropriate to its context. In other words, oppositional reasoning which negates or berates any of the four approaches would not be professionally appropriate. There are contextually-valid explanations for each of the four metaphors of flooding in line with cultural, geophysical and other features of each people's landscape.

The 'garment' metaphor is, therefore, used interchangeably with the 'friend' metaphor in this paper. In reference to Noah's flood, the metaphor of garment as it applies to flooding comes from Psalms 104:6. In confirming that metaphors are central to biblical thought (Macky, 1990), it is hereby proposed that the metaphorical vision of 'flood-garment' has always been dormant in scholarly thinking throughout history in one form or the other, but real. In this paper, only the enemy and garment flood metaphors will be outlined, and it will be highlighted that the popular academic notion of 'flood-hazard', including a few others, are rooted in the enemy flood metaphor. Secondly, the four general relationships expressed and supported by a flood metaphor are:

- Human to human relationships (called 'b' in the diagramme).
- Human to species relationships (called 'c').
- Human to flooding relationships (called 'd').
- Human to supernatural relationships (called 'e').

Thirdly, each of these general relationships is held in place by a particular type of mental process (namely, 'f', 'g', 'h' and 'i'). All these four mental processes, therefore, can reflect or be rooted into a single flood metaphor of the 'enemy', 'garment' (friend) or variants of these metaphorical dichotomies. This situation where a particular flood regime can accommodate four different mental processes which are, in turn, holding in place four varying relationships at one and the same time is crucial. It advances our understanding of flood because, previously, some scholars had not imagined that certain ordinary, day-to-day concepts could, in fact, be flood concepts (Figure 1). Concepts are used interchangeably with mental processes in this paper. Moreover, scholars were often amazed at contradictions in behaviour exhibited by flood occupants who, on the one hand, were devastated by floods but, on the other, refused to vacate and relocate to other places. It is likely that such flood occupants experienced two or more varying mental processes of flood at one and the same time and reacted to them accordingly. The 'both – and' flood metaphor or 'neither – nor' could, in this case, apply. In this regard, it is not absolutely clear in which category the Egyptian notion of flood falls because the water brought soil nourishment alongside destruction and maiming of the populace.

Using the above-presented premise, we may now define the enemy and then friendly flood perspectives in that order by critically designating the received literature and concepts in each flood perspective. We start below with the 'enemy' flood perspective.

Flood as an enemy

Drawing from the premise established in Figure 1, the enemy flood tradition can be operationalised as an academic and social custom of mental processes sustaining human relationships whereby the notion of hostility as radiated by the flood metaphor of enemy is central. A typical flood poem eulogising the enemy idea of flooding comes from the Dutch culture as follows:

Green are the fields and fruitful; men and flocks,
Straight away at ease here on the new-born earth,
Make their abode along the massive dike
Built by a daring and industrious people.
Here within, a land like paradise,
Without, the flood that rages to the brink
As it crumbles the dike, ready to rush in fury.
The people, as one man, hurry to close the breach.
(Wagret, 1967:279)

The idea of flood as an enemy eulogised in the above poem meant that for centuries, people thought of 'taming the flood' in different ways, as illustrated by Purseglove (1989). This mentality resulted over the years in the drainage of floods from wetlands and, concurrently, in the taming of various wetland dwellers by the drainage undertakers. Many flood cultures and landscapes were drained in due course, giving rise to a possible environmental crisis requiring further investigation at the moment.

Flood as a friend

On its part, the friendly view of flooding as an academic idea refers to a flood which radiates relationships and mental processes of an amiable nature within the environment the water inundates because of the centrality of the 'garment' metaphor. In other words, this tradition is potentially an academic and social custom of mental processes sustaining human relationships whereby the notion of amity as radiated by the flood metaphor of 'garment' is central. There are different case examples of the practice of flood as a friend, such as the 17th-century English Fenlanders, the pre-drainage Sudanese Nuer cultures as well as the Zambian Lozi-speaking people. The illustration below comes from the 16–17th Century English Fenlands when these areas were controversially subjected to Dutch drainage projects:

> Is it desirable, in the first place, that land should be reclaimed? Not to those who exist by water; not to those who have no need of firm ground beneath their feet. Not to the fishermen, fowlers and reed-cutters who made their sodden homes in those stubborn swamps took to stilts in time of flood and lived like water rats. Not to the men who broke down the medieval embankments and if caught were buried alive in the very breach they had made. Not to the men who cut the throats of King Charles's Dutch drainers and threw their bodies into the water they were hired to expel (Swift, 1983:8–9).

As noted earlier, the metaphor of flood as garment comes from Psalms 104:6 within some growing realisation noted by Macky (1990) that metaphors are central methodological frames of reference for interpreting the Bible. In this regard, it is suggested that the intellectual essence of the friendly view of flooding based on the garment metaphor involves a situation where a leader and his people living in a flood plain willingly allow floodwaters to inundate their territory (like a garment covering something) for positive effects such as affording a flood ceremony, until the same waters achieve an expanse over land to render the resultant area as 'flood – garment'.

The Biblical tale of Noah's Ark and the Flood, henceforth, becomes a contested event which the hazard school, on the one hand, claims belongs to an enemy phenomenon whose predominantly destructive potential was only avoided by advance divine warning to Noah and his family (Park, 1991). This connotation of flood is often interpreted from Genesis 6–9 (Dundes, 1988). On the other hand, it is clear that Noah willingly consented to God's plan to inundate Noah's territory to produce a flood garment situation. Ordinarily, a garment is never an enemy object to people wearing it. If anything, people make every imaginable effort to make a garment to be colourful, spectacular and clean in its supportive role to the body wearing it. Apart from Psalms 104:6, the idea of flood as a friend can, in this regard, be interpreted from the Ark which Noah made (Genesis 6:14–22) to be a form of adjustment technology meant to willingly allow the inundation of the world by flood for its supportive role of cleansing the area from evil.

Flooding Among the Barotse People

The Lozi (Barotse) people of Western Zambia are currently among the few ethnic groups in the world with a distinct floodwater ceremony called the *Kuomboka*. Just like Noah did with his people, among the Lozi, an ark-like vessel locally called *Nalikwanda* is constructed to permit inundation of their country by floodwaters. The Lozi-speaking people deliberately allow water to flood part or a whole of their land to create a valuable, scenic and ecologically productive area to be enjoyed by the people and wildlife. The Lozi eulogise the spectacle in a flood poem which goes as follows:

It is flood time in Bulozi.
The floodplain is clothed in the water garment.
Everywhere there is water!
There is brightness!
There are sparkles!
Waves marry with the sun's glory
Birds fly over the floods slowly,
They are drunken with cool air.
They watch a scene which comes but once a year
Floods are beautiful.
Bulozi is the flood's dwelling place.
Every year floods pay us a visit.
A Lozi does not beg for floods.
We do not resort to herbs to bring floods.
We practice no witchcraft whatsoever.
These are floodwaters, indeed!
The floods are ours.
They know their own route.
They know their own home.
They know where they are needed.
They know where they are cared for.
And when we ourselves see them we are filled with happiness,
Our hearts become lighter
We do not fear the floods.
Floods are a Lozi's patelo
When the floods are in, we prepare the royal boat.
It is a happy occasion in Bulozi.
Listen! The royal drums boom in the palace,
Calling the paddlers, young and old.
Floods are a Lozi's Patelo
The royal drums are never bought,
They cannot be priced,

They cannot be given away
We might give away cobs of maize or fishes,
But the royal drums are ours and ours alone.
Their booming sound stirs our blood.
We get wild with our cultural heritage,
We dress in animal and lion skins.
Floods, the Kuomboka Ceremony and the royal drums
Are all ours alone.
(Translated from Sibetta, 1983)

In this flood poem, the metaphor of garment appears in the second line. *Patelo* in Lozi means a public, open space in the centre of a village. When applied to floods this *patelo* is sometimes called water arena. Readers are asked to imagine qualities of a garment which would also apply to floods to produce positive effects or impacts. Many of these garment-based qualities help to imbue Lozi's with cultural attributes arguably only unique to them; for instance, a highly developed cultural complex of respect locally called *likute*.

The value of 'garment' as a metaphor of flood giving rise to a watery *patelo* among the Lozi-speaking people spans historical and contemporary times. Almost all Lozi productive activities, movements and monthly calendars are tied to the flood regime. Gluckman (1968) has ably documented this factor, and states that social life moves with every change of the waters and the associated changes of weather. To the Lozi-speaking people, the flood centrally influences their philosophical, religious and cultural approaches to life as well as their economic, aesthetic and other elements of life.

The following outline of the annual calendar illustrates the point that the presence or absence of floods in Barotseland is crucial to, and central in determining people's livelihoods and productive activities:

- January (*Sope*) – means that the flood is coming; and this is the month of much new food of many kinds. The main work is gardening, planting and weeding.
- February (*Yowa*) – means that the flood comes; game and birds are enclosed on higher land and gardening work involves harvesting.
- March–April (*Liatamanyi-Lungu*) – means full flood, this is a time when wedge-traps and other fishing methods are used.
- May (*Kandao*) – means that the flood turns and begins to fall. This is the time of weaving cone-fishing traps. Also fish spears and scoop-baskets are used in public waters.
- June (*Mbuwana*) – means that the flood has fallen. The king makes his ceremonial voyage to his plain capital with his people. A communal bird hunt and reed cutting occur during this month. Margin gardening also begins at this time.
- July (*Sikulu*) – means that the plain begins to dry and water is confined. Fishing, bush gardening and trading in wild fruits occur.
- August–September (*Muyana–Muimunene*) – mean that the plain is dry and the hot months set in. The centre of high fish supplies become concentrated in the mid-plain.

- October–November (*Yenda-Njimwana*) – mean that the rains begin. These months are characterised by the killing of fish in the shallows of pans, as well as net-fishing and fruit supplies. Garden planting also takes place this time.
- December (*Ng'ulule*) – this means the rains set in and the rivers begin to rise in order to start flooding. Gardening involves planting, weeding and guarding crops from birds.

The 'garment' metaphor of flooding provides various ecological benefits and arguments. The Lozi territory is naturally prone to desertification minus a flood. The extreme heat of the area around August to October of each year tends to facilitate the breeding of various disease-carrying organisms. Such organisms tend to be flushed out each time by floods, which drain the vectors to the Indian Ocean. The floods, moreover, support various wildlife, environmental and biological growth processes, including creating conducive niches for fish breeding. The general fertility of the plains is facilitated by flooding which deposits silt. These various ecological functions of floods are to be found in other cultural practices that 'welcome' floods and flooding, for example, the purposeful flooding of the water meadows in the United Kingdom, which can be ecologically explained by the bringing in of fertile alluvial silt to stimulate soil fertility and growth.

In Contrast, the Dutch view of flood as 'enemy' as recorded by Schama:

> ... helps account for the nationalist intransigence of kindred frontier cultures: the Boer trekkers of the South African Veldt, the godly settlers of the early American Frontier, even the agrarian pioneers of Zionist Palestine (1987: 53).

It can never be doubted that there is a clear, researchable connection between a people's view of flood as enemy and the unleashing of some kaleidoscopic machinery of violence and conflict. Moreover, the enemy metaphor which has historically been immanent in the interpretation of flooding tends to spawn concepts that govern scientific thought, language and actions. The way we think, what we experience and what we do technologically and scientifically with floods globally is very much a matter of the historical legacy of interpreting flood as 'enemy'. This is the case with familiar concepts and practices like polder, drainage, embankment, the delta project and land reclamation, on the one hand, and hazard, risk, vulnerability, damage or catastrophe, on the other.

Conclusion

Several conclusions are possible and this paper will not exhaust all of them. Firstly, southern Africa, in general, and the Lozi case, in particular, provides scholars with positive opportunities to challenge the overpowering heritage of flood as enemy. The whole Barotse plain when in flood can become a 'laboratory' for scholarly investigations on the nature of flooding. Secondly, academic concepts we use in ordinary discourse around the theme of flooding may not be wholly neutral in themselves, but can be linked clearly to cultural situations of particular peoples. In this case, the hazard notion is clearly a cultural distillate of the Dutch experience of flood as enemy. This notion helps to caution people about the real threat to life and its connection to death and destruction.

Thirdly, in examining the historical roots of our ecological crisis the research challenge becomes partly to critically explore the negative influence of the 'enemy' philosophy of flooding for a thousand years or more as was practically manifested in a polder project described below:

> ... the history of ecological change is still so rudimentary that we know little about what really happened or what the results were... On more intricate matters it often is impossible to find solid information. For a thousand years or more the Frisians and Hollanders have been pushing back the North Sea, and the process is culminating in our own time in the reclamation of the Zuider Zee. What, if any, species of animals, birds, fish, shorelife or plants have died out in the process? In their epic combat with Neptune have the Netherlanders overlooked ecological values in such a way that the quality of human life in The Netherlands has suffered? I cannot discover that the questions have ever been asked, much less answered (White, 1967:342).

It is likely that, for many such wetlands under the impact of the enemy view of flooding, human life in those respective polders may have become an enemy event which engendered irreversible negative change in the form of famine, desertification, wildlife depletion, drying of acquifers or drought conditions. Many of the destructive consequences wrought by the enemy view of flood as reflected in polder projects could also contribute significantly to what is described by Swain (1993), as migration, social conflicts, fluctuation and deterioration in the standard of living. Research by southern African investigators is needed to explore these postulations. All these negative environmental consequences underscore the point that if (flood) water is life (Thales) and that water is regarded to be an enemy object, then life itself becomes an enemy event also.

Fourthly, what is emerging form the above presentation of the Lozi experience to move us forward in life and academic discourse with reference to floods is that flood remains a crucial agency of reconstructing reality. The Lozi story challenges humanity to consider new opportunities of relating to floods in order to obtain supportive benefits from these waters, including possibilities of re-shaping reality away form violence, conflict and exploitation of one people by another. It is just conceivable, in this regard, that some of the perpetual conflicts and violence of certain areas of our world may continue raging largely because both actors in the war may have inherited the same types of mental processes and relationships of Noah's flood as 'enemy'. Such a possibility offers us challenges to move the academic discourse of Noah and other types of flood forward in order to reshape life. This is in view of the point that our world has evidence of an alternative, visible flood view as illustrated, amongst others, by the Lozi experience.

Finally, the account presented in this paper has some great significance for environmental education of the 21st century and beyond. Interested educationists are invited to take their students to Loziland around February-March of each year on fieldwork to witness for themselves the 'garment' idea in operation. Numerous educational activities could then be devised by teachers and their learners whilst in Loziland during this occasion; for instance,

photographing wildfowl, people and wildlife as these utilise various aspects of the flood. A Flood-Garment Research and Teaching Institute (in contrast to, say, the Middlesex Flood-Hazard Research Centre in Britain) could be established in the region to further explore the idea of flood as garment applicable to various communities scattered around the southern African territory.

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Tensions, Contradictions and Inconsistencies in Community-Based Environmental Education Programmes: The role of defective educational theories

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Abstract

This paper is derived from a PhD study conducted in rural Uganda. The study used Participatory Action Research (PAR) methodology to explore how educational methods employed in community-based environmental education programmes were empowering communities to respond appropriately to environmental challenges. A community-based rural development programme by Volunteers Efforts for Development Concerns (VEDCO), a local NGO in central Uganda, was used as a case to critically explore the community-based environmental education processes. The programme aimed to empower smallholder farmers economically and socially through training in sustainable agriculture, land use and management, agric trade and microfinance. Through a critical analysis of the different educational processes this paper exemplifies how contradictions, inconsistencies and tensions in educational theory undermined practice and affected the character of the programme, its implementation and outcomes at community level. It further demonstrates how the conscious shift in thinking and actions towards more transformative educational practice created tangible positive results. The paper also engages some of the key assumptions of critical theory and their application in a community-based context, and raises the need to go beyond the simplistic uncritical adherence to such assumptions as it leads to further 'instrumentalisation' of education and the accompanying processes.

Introduction

This paper is based on findings of two PAR cycles and is divided into three sections. The first section represents experiences from the first PAR cycle, which was designed and implemented along traditional neo-classical lines despite the declared emancipatory intent of the programme. The second section is based on experiences of the second PAR cycle in which conscious efforts were made to adhere to the principles of socially critical transformative education. The third represents a critique of some of the key assumptions informing the socially critical education framework.

The central argument of this paper is that many of the tensions, contradictions and inconsistencies undermining community-based educational programmes are caused by defective educational theories and philosophies. Theories and philosophies are not necessarily defective in themselves, but it is the way they are interpreted and applied in given contexts that renders them defective. Educators writing from a critical perspective, with which I closely

identify, distinguish educational practice along three broad orientations, namely: the neo-classical, liberal progressive and socially critical emancipatory educational orientations. This categorisation is based on the notion that education is not a neutral activity. This is shared among many critical education theorists, including Carr and Kemmis (1986), Freire (1970), Giroux (1983) and others. Central to this notion is the fact that different educational practices and accompanying processes are informed by specific theoretical orientations (Carr, 1990). The orientations are informed by different knowledge constitutive interests[1] (Habermas, 1972). This implies that educational activities are by nature rooted in some form of ideology or philosophical orientation regardless of whether the persons concerned are conscious of it or not. The educational orientations often manifest differently, which makes it naturally defective to jumble attributes of different educational thoughts in any one given programme as it often leads to contradictory outcomes. This is not to argue for exclusivity of educational orientations, as this can also be defective, but to highlight the fact that different orientations have distinct attributes with distinct educational outcomes. Any such mix should be a careful integration based on the unique learning requirements of a given programme and learners, and not simply an offhand picking from an apparently unclaimed pool. This paper therefore uses the case of VEDCO's community-based participatory training programmes to illustrate these concerns and to draw out some lessons and conclusions.

The Context of the Study: VEDCO's Programme

In the year 2000, VEDCO embarked on the implementation of a community-based rural development programme in response to community needs identified in two 'participatory'[2] baseline studies. Both studies sought to identify those issues limiting people's capacity to overcome poverty and its related effects.[3] According to the findings of these studies, communities lacked appropriate knowledge and skills in agricultural production and marketing, business management and access to micro-finance and credit facilities. Land – the major community resource – was unevenly distributed, controlled and mismanaged through poor farming methods. There was also evidence of crop destruction by vermin, pests and diseases; there was food insecurity,[4] limited access to quality seeds, and unreliable markets for agricultural products, lack of diversification with most of the households depending on agriculture as the only source of income (VEDCO, 1998; 2000).

The community-based programme that arose from these needs specifically set out to address, among others, problems of food security and natural resource management, particularly land for agriculture. Programme activities included 'participatory' training of smallholder farmers in sustainable agriculture (sustainable land use, crop and integrated pest management, food security management, banana and coffee rehabilitation), management of income generating activities and marketing of agricultural products. It also entailed enhancing farmers' participation in the development and implementation of programmes for income diversification, introduction of alternative income generating activities and fair terms of trade between smallholder farmers and crop buyers.

The ultimate goal of this programme was sustainable economic and social empowerment of smallholder farmers and entrepreneurs demonstrated in the communities' ability to utilise and

manage available community resources in a sustainable way and to negotiate for support for sustainable agriculture, food security, marketing and other income generating activities.

The programme objectives and ultimate goals presaged critical transformative educational processes, including learning methods and content. VEDCO as an organisation also believed in the need for transformative education to create an empowered community, capable of responding to its needs, challenges and problems. Based on these motivating factors, VEDCO unequivocally declared its commitment to the implementation of a participatory training programme guided by transformative educational goals. This research, however, generated findings that did not always reflect the best intentions of the organisation as stated in the programme goals.

The research showed that despite the emancipatory intentions of the programme, the processes and outcomes often reflected tensions, contradictions and inconsistencies with the declared theoretical framework of the programme. These were exhibited in the programme development process, the objectives and learning content, the structure of training, the strategies adopted, training methods and techniques, and at a deeper level in the uncritical assumptions about critical theory as a guiding framework.

Part One: Educational Practice as a Technical Activity

The analysis in this part of the paper is based on the findings of the first PAR cycle in which programme activities took the neo-classical view of education as a technical process. Educational activities based on the neo-classical educational orientation approach educational practice as a 'neutral' instrument for overcoming technical problems, overemphasise the use of science and technology to solve problems and view educational process as a process of transmitting knowledge to change people's behaviours.

The contradictory RDDA model

The processes involved in the development of VEDCO's programme contradicted the underlying transformative/emancipatory interest of the programme. The programme exhibited a technocratic neoclassical approach to educational planning reminiscent of what Popkewitz (1984) called the Research, Develop, Disseminate and Adopt (RDDA)[5] model of programme development and implementation. Programmes following this model assume a technocratic dimension based on the neoclassical hierarchical notion of knowledge and knowing whereby the researcher, educator or development worker is assumed to have the 'right' knowledge and capacities to conceptualise issues on behalf of learners, research participants or communities (Usher *et al.,* 1997) with whom they work.

In the case of this programme, consultants were, for example, hired to conduct a participatory assessment of community needs. But as results came to demonstrate, these expert consultants used participatory methods as mere tools for data 'extraction' but not as part of the holistic empowering and co-learning process they are meant to be in emancipatory programmes. Thus, although research played a central role in informing VEDCO's programme, it was based on the technicist positivist notion of 'finding out about' people's lives (Usher *et al.*, 1997) rather than engaging

people in finding meaning in their situations. The communities were used as research 'subjects' only to provide information to the experts to make meaning of that information and in the end 'name' the community situation. As a result of this exclusion of communities from the analysis and interpretation of their situation, the actual needs, problems and interests of the community were misinterpreted and their situation misrepresented. For example it was assumed that:

- The community was not only interested in farming, but farming the same crops.
- Communities were homogenous with similar needs, interests and aspirations (no tensions, no contradictions at different levels).
- People were willing to work together on collective village demonstration gardens to acquire new knowledge and skills.
- People would automatically adopt the methods of work advocated and taught by VEDCO.
- There were no other dynamics to influence people's response to the programme.
- People's priorities were similar to that of the organisation.
- VEDCO and the community had a common understanding of food security.
- The timing of the programme in the community did not matter.

As such, socio-economic, political and cultural factors like income and land distribution, the different dimensions of poverty, gender and specific individual and group interests that influenced access to and management of key resources were not central factors in the first phase of the programme, although the baseline study had indicated them. In the end, this approach alienated both the communities, whose needs were supposedly being responded to, and the extension workers who were to implement it.

Whilst critical reflection, planning and action are integral components of emancipatory education practice to continually inform and strengthen programmes, the RDDA model applied in this case did not allow for recursive reflection and review. In essence, erroneous conclusions based on the baseline study formed the basis for inappropriate programme planning, the results of which could not be reversed before causing damage to the programme.

Behaviourist training objectives and technicist[6] programme content

The educational and development objectives that guided the programme were stated in the neoclassical behavioural manner emphasising the ultimate behavioural change, expressed in facts and figures (e.g. numbers of demonstration gardens established, workshops held and numbers of participants attended, support visits made to individual households, etc.). This depicted the underlying neoclassical instrumental view of education that disregards educational processes and focusses on the outcomes. Because technicist education is often geared towards fulfilling predetermined goals, in this case also, knowledge was treated as a neutral tool to be manipulated by the expert educator (Carr & Kemmis, 1986) in order to achieve those goals. This was often demonstrated in the emphasis on the provision of technical facts about sustainable agriculture and training techniques, especially when training lead-farmers, as the purpose was strictly to 'equip' them with particular skills and knowledge to pass on to fellow farmers.

In essence, the programme treated the situation simplistically by only viewing community

problems from a technical perspective as *lack of knowledge and skills in production, the right technology and markets*. This interpretation of community problems as technical had far-reaching methodological and practical implications. It created a defective assumption that once 'equipped' with those missing skills and technical knowledge, a tremendous transformation in the farmers' lives would be achieved. Communities were reduced to 'target recipients' in a one-way process of transfer of technical knowledge and skills, while extension workers were turned into conduits for transferring 'packages' of what VEDCO considered appropriate skills, using transmittal methods and expecting farmers to comply.

The programme used a cascade model to train members of the community to become role models and lead-farmers not only to use a community-based approach to train fellow farmers as trainers and model farmers, but also centres from which knowledge, skills and positive change would 'trickle down' or diffuse into the entire community. In using the cascade model of training, VEDCO made some fallacious assumptions that contradicted the emancipatory goal and view of education as an empowering process. Apart from ignoring the contextual dynamics, such an approach perpetuated the neoclassical linear and hierarchical view of education. For example, assuming that lead-farmers once trained would pass the same knowledge and skills on to fellow farmers in the same way was to ignore importance of context and process in learning and also the complex community dynamics. This was obviously in line with the diffusion model used in traditional agricultural extension in which extension workers supposedly have packages of 'correct recipes' to farmers' problems, to pass on to a 'homogeneous mass' of 'ignorant' farmers (Hillbur, 1998).

The rooting of the farmers' training in a neoclassical educational theoretical framework other than the declared emancipatory one, not only undermined the capacity of the programme to transform farmers into empowered individuals, but also blurred the organisation's capacity to understand the underlying causes of the challenges encountered during implementation. Farmers' failure to adopt new farming practices was, for example, viewed by VEDCO as a sign of inefficiency on the part of the extension workers. The extension workers themselves attributed the problem to poor logistical support, lack of farmers' cooperation, farmers' resistance, laziness and disinterest. This echoes Pretty's critique of traditional approaches to extension and agricultural education thus: 'farmers who choose not to adopt are often labelled by extension workers as laggards, with attitudinal barriers' (Pretty, 1995:188). But the truth often lies far beyond this, precisely in the educators' and development workers' worldview and the contextual dynamics that are often ignored.

It was this contradictory application of a neoclassical framework in service of a largely emancipatory education and development agenda that made the implementers lose sight of the contextual factors surrounding the programme, centring their focus on activities that would lead to the stated outcomes. What they forgot was that the achievement of such outcomes was largely influenced by the context including the process. It can thus be said that even with all efforts focussed on the ultimate goal, with contextual factors unattended to (which actually happens under the neoclassical framework), the outcomes might remain a mirage that are perhaps never be achieved in the project's lifetime.

Technicist training structures, strategies and methods

The structure of the training exhibited the neoclassical notion of a separation between theory and practice (Higgs, 1998). The initial training workshops were structured into two distinct parts, one consisting of theory and the other of practice in the form of field demonstrations. The theoretical components of sustainable agriculture were always taught at the beginning of the training workshops in school-like educational settings, obviously based on a neoclassical assumption that good learning takes place when theory precedes practice, as opposed to the socially critical belief in the creation of theory through practice (Carr & Kemmis, 1986; Higgs, 1998).

Learners were made to work on demonstration plots, anticipating that demonstration would equip them with the necessary experience and capacity to transfer what they had learnt onto their farms. Conversely, whilst work on the demonstrations was practical, the method employed was the transmittal 'showing and telling' the farmers what to do, without engaging them in such a way as to become critical co-constructive co-participants (Lotz & Ward, 2000). Demonstration as a training method does not nurture a participatory spirit, and practical as it appears, it remains an autocratic didactic approach. The failure of farmers to transfer the expected skills and knowledge to their farms demonstrated that learners can go through the entire demonstration process without getting empowered to become independent actors, since the process involves following what the expert does. In the absence of the expert (who constitutes a symbol of knowledge, power and authority to follow), the learner is rendered powerless.

At the same time, demonstration as a method and the accompanying technicist assumptions caused extension workers to believe that they had to become experts, able to provide all answers to all questions. Extension workers expressed this concern on a number of occasions, as a real source of occupational stress to them, whenever they failed to do so. This is one of the ways in which neoclassical educational practices give a false sense of power to educators, while at the same time disempowering learners. As mentioned earlier, neoclassical educational thought views educators as the sole possessors of knowledge, which contradicts the critical educational notions of collective 'active-meaning-making', co-learnership and co-educatorship. This normally has key implications: it perpetuates a false confidence among educators that prevents them to learn from learners, while at the same time undermining the learners' confidence and inner motivation to work on their own (Freire, 1970). Technicist training structures, strategies and methods in this case created dependent learners. Many farmers who transferred what they learnt to their farms in the first phase of the programme, did so more due to the follow-ups by extension workers than an inner motivation and desire to change. Whenever the extension workers failed to make follow-ups, farmers reverted to their old ways of doing things and complained to extension workers '*mwatusuula*' (meaning: you abandoned us).

The above discussion represents some of the key contradictions characterising VEDCO's training programme and illustrates how the neo-classical educational framework practically reigned in a programme that was in principle motivated by a socially critical intent. The neo-classical view of education as a technical process contradicts the basic tenets of socially critical education, which view the educational process as a social activity and employ educational methods that emphasise people's participation (Carr & Kemmis, 1986). The fact that the programme was motivated by an emancipatory intent implied that the methods and approaches

employed would reflect that goal, although the opposite occurred in practice. The use of transmittal training methods in service of a socially critical emancipatory intent instead, exposed the contradictions underlying the programme and compels one to wonder as to how conscious the emancipatory intent of the programme remained a strong basis of the programme, or whether they had lost sight of it.

Such contradictions in methodology and approach can be explained in two different ways. The traditional/technicist approach to schooling in Uganda created a technocratic mindset that influenced the professional character of educators. Because little or no efforts were made to deconstruct this attitude and related practice, educators found themselves reproducing the educational processes that created them. In order to change this mindset it was necessary to re-orient the educators, but as Mezirow (1990) observed, while many emancipatory education efforts encourage transformative learning, little attention is given to the creation of sustainable structures to enable learners to freely exercise what they have achieved through the process. And according to Mezirow, the problem still remains that, 'even in a Freirian model of education, people can change their theories without having improved their capacity to change their situation' (Mezirow, 1990:85). At another level, the tensions were also exacerbated by the neo-liberal development ideology of donors, which influenced the NGO methods of operation and vision of change. The donors and VEDCO seem to have interpreted development as modernisation which constitutes a technocratic belief in a one-way transformation of those considered backward by the rich and powerful using science, technology and capital investment. This affected the methods of work, thus increasing the pressure on the extension workers to transform the behaviours of poor farmers, and undermined their capacity to pursue the emancipatory goals and principles.

Part Two: Education as a Social Emancipatory Process

The discussion in this section is based on findings generated during the second PAR cycle. Having learnt from the weaknesses of the first phase of the programme, VEDCO took conscious steps to adhere to the declared emancipatory framework in the second implementation cycle. Emancipatory education is founded on the notion that education should play a role in creating a just and democratic society (Giroux, 1983). This implies that education becomes a process that leads to a genuine exercise of power by the majority (Bertrand, 1995) in deciding on educational matters. A number of changes were introduced to take care of the different community concerns, including among others: a conscious effort to utilise learners' interests, knowledge and experiences, engage participants in learning for immediate action, use of dialogue, collective critical investigation of programme processes integrating critical reflection, participatory action planning and implementation. Facilitators consciously drew on the principles and assumptions of the socially critical framework in this endeavour, and findings showed that once participatory methods were appropriately used, it was possible to actively involve farmers not only in learning activities, but also in implementing what they had learnt without pressure from the facilitators.

A new training strategy was developed based on the expressed needs of the farmers. Farmers, for example, preferred to be grouped according to their interests, and specific training for particular interest groups organised around those interests. This was a major break from the type of training observed in the first phase where farmers were given generalised training, disregarding the individual and group interests. In addition, a new concept of food security was developed, the range of crops regarded as essential for income generation and food security was widened to include crops preferred by individual farmers and groups, rather than those that had been imposed upon them by the organisation in the original programme. Farmers also began to play a central role in shaping the character and direction of the programme through their active participation in the development of action plans, which included the setting of community and household targets. The results of the changes were evident not only in farmers' positive responses to programme activities and commitment to the implementation of what they had learnt, but also in their self-confidence and attitudes towards self-reliance. For example, whilst in the earlier part of the programme extension workers literally coerced the farmers to implement the new knowledge on their farms, this time round it were the farmers seeking on-farm support from extension workers to perfect their practice. Out of the 60 farmers included in the study, more than 75% applied at least 10 of the 15 sustainable agriculture practices they had been taught. As a result of the changes, many farmers felt able to challenge the NGO and the extension workers whenever they failed to meet their obligations. This, in a way, represented certain levels of empowerment on the part of the farmers as evidence in Box 1 demonstrates.

Extension workers also experienced major personal and professional transformations, which were important landmarks in their careers as educators within community contexts (see Box 2). Their approach to training changed from the technicist top-down to one of sharing and negotiation, in which learners and facilitators became co-learners and co-constructors of knowledge. This was in line with the basic tenets of critical pedagogy (Freire, 1970; Giroux, 1983; Mayo, 1999) and the socially critical orientation to education that informed the programme. There was a new awareness among extension workers that, as facilitators, they were not supposed to provide the answers to all the questions but to work with farmers to find the answers collectively. This demonstrated that extension workers had developed the ability not only to accept challenges and criticisms from colleagues and farmers, but also to reflect on their own abilities and actions and respond accordingly.

Box 1. Extension workers' comments on farmer transformation

There are several changes I have seen in the farmers I have worked with since I began a year and half ago. The farmers are more confident in a positive way. As I said earlier, I have been using a participatory approach where everybody in the group has had opportunity to host the entire group at his home as a learning venue. It was very difficult to convince a person to host a learning session let alone facilitate. These days they compete to host the sessions. It was also very difficult for any of them to come out and talk about their experiences or ask questions, but slowly by slowly they have accepted the practice. Another important change I have seen is in the area of self-reliance. People are now willing to contribute money for activities like exposure visits; they also accept to pay for planting materials like banana suckers, coffee clones, grafted fruit trees and nitrogen fixing trees. In the past they used to complain that they were too poor to buy these things, that they should be given for free, but when we insisted that it is only those willing to sacrifice that would work with us, they changed completely! There are some cases of dependency, but the majority have now transformed a lot in this respect. Farmers have also started to come to our field office to consult and report their concerns where they want us to help them. They can even contribute for their lunch during training, yet in the past they used to quarrel and even abandon meetings when we refused to provide lunch. Farmers have also begun to challenge our way of doing things. On many occasions during the PRA and other meetings they have criticised us on such issues as late coming and failure to follow up work plans. At first, farmers were very worried about things like where to buy pesticides and to market their products, especially horticultural products and they used to look at VEDCO as responsible to get them markets since VEDCO had introduced the crops to the community. These days they look for their markets. Others have formed groups to collectively hire vehicles to transport their produce, either to markets in Kampala or Wobulenzi town. I think this is sufficient evidence of change on the part of farmers. (Extension worker III)

I have realised that farmers have also been empowered beyond knowledge to improve their production. They know what they want. They can ask very challenging questions, which make us rethink many of the things we do. For instance they challenge us as to why we make them develop action plans which we, at times, fail to fully follow and at times come back and ask them to re-plan before the old one has been implemented fully. At times they have physically brought out the plans and asked me: '*Musomesa, okusinziira ku plan yaffe twalibadde mumusomo gwa nkoko na mbuzi ng'anda naye kati tuli kubirala!*' (Meaning: Educator, according to our plan we were supposed to be learning about rearing local chickens and goats around this time, but now you are talking about different things.) But I think even us as extension workers and our bosses have also been empowered in many ways. We can for example recognise and respect the capacity of our partners. Even our attitude has changed. You see how often we meet and decide with them what to do. (Extension worker II)

Box 2. Extension workers' views of their own transformation

My own way of doing things has changed. I think I am a better facilitator now than I was before. I have learnt to work with communities as equal partners. This has taken some burden off my mind and actions, I know I am not expected to have all answers to all problems and I also know the community has much more knowledge of their environment than me. This is a big relief to me as an extension worker. My approach was very different at the beginning. I went to the farmers to teach them and taught them as I thought was most appropriate, but I was often disappointed when they did not practice what I had taught. (Extension worker III)

These days I always try to come back and ask myself why are these people behaving the way they do. Am I doing the right thing or is there a problem with my approach? I try to think about those things we talked about that hinder success in learning. Is it not possible that there could be some other causes of the differences in response by farmers? At the beginning we did not examine the social and economic backgrounds of the communities. There are those with the economic muscle to implement and there are those without; some, for example, lack land to work on, others don't look at agriculture as the main economic activity and others whose needs are not met by the training we conduct. (Extension worker II)

One of the most obvious yet important changes has been in the way I approach people in the community. My respect for farmers has increased, my patience and willingness to listen to their problems has also increased. In the past, my main concern was how many farmers I visited, but these days I am more concerned with the quality of assistance I give to the farmer. I have also learnt to generate information from farmers and even to assess my own performance. I can tell when the farmers are not satisfied with my method of work and adjust; I also feel confident to meet people regardless of the numbers. I no longer fear challenges from farmers. I can accept them and use them as sources of learning for the group and myself. The other thing I learnt is to look at myself as a learner not a teacher, to accept that I can be inadequate in some of the areas. When I thought I was supposed to have answers to all questions whenever I failed, I felt very low. (Extension worker I)

The positive changes notwithstanding, there were still several opposing factors that made the implementation of programme activities difficult for many farmers. While it was essential to make use of learners' knowledge and experiences, in some instances farmers either lacked the necessary knowledge and experiences, or the facilitators did not have the time or capacity to effectively guide the dialogue in a way that would enable farmers to make useful contributions to the discussions, as one of the cases shows:

> The training process was good, but we made one mistake. Because they used to ask us what we wanted to learn, we only remembered some things and forgot others. We, for example, asked them to teach us about vegetable farming, but did not ask them to teach us enough about pest control and management. We instead asked for that training after we saw our vegetables being attacked.

This is a challenge to emancipatory educators regarding the way they guide community-based learning processes. While this might have been an oversight on the part of farmers who did not raise all the important issues and the trainers who failed to apply their professional knowledge and experience, it is also true that often people do not have all the information and knowledge necessary to plan appropriate responses to their problems, rendering it erroneous to assume, as is normally the case in critical pedagogy, that learners know what they need to learn (Freire, 1970; Giroux, 1983). Findings also revealed cases where the more vocal and influential members of the community marginalised the poor, the quiet and, at times, women. One extension worker made an important observation in this respect:

> I have also observed that when we meet in groups some of the individuals are suppressed because we tend to emphasise issues that are applicable to the general group, leaving out some of the more personal ones applying to individuals. Often farmers come out with real issues, but you realise the issue is individual and the group tries to silence such people saying they are being irrelevant. Then I realise that good as the approach looks, it leaves out the specific interests, strengths and weaknesses of individuals.

This highlights a key problem in facilitation, whereby in an attempt to overcome top-down training, facilitators err on the other extreme. It remains a challenge to critical educators to manage participatory learning processes, without perpetuating inappropriate and unproductive social differentiations. Nevertheless, the concern by the extension worker represented professional growth on the part of extension workers, resulting from the reflective processes introduced through the study. He has seen the limitations of the superficial way in which participatory methods are often applied.

Experiences like the ones above provide an important lesson regarding training as a major programme implementation strategy. It is illustrated that good training on its own is not enough to enable people to effectively implement policies and programmes because lack of knowledge and skills may constitute just a small fraction of the limitations to programme implementation.

It is also important to remember that while learners are knowledgeable about many aspects of their lives and can use such knowledge and experience to strengthen the learning programmes, it is also true that sometimes learners may not have all the knowledge they need. Hence educators' over-reliance on learners' experiences might lead to failures that will cast doubt on the socially critical educational assumptions about learner's experiences and knowledge as a basis for meaningful learning. In the same vein, failure by the educators to contribute their own knowledge and experience to boost learners' experiences can undermine their own credibility as educators and commitment to effective training.

In the final analysis, facilitators should be aware that learners might at times have limited knowledge and experience that may call for the experience and expert knowledge of the facilitator. This implies that facilitators need to be sufficiently equipped with appropriate knowledge and skills to guide, supplement and, at times, inform learners or even correct learners' misinformation and gaps in knowledge. Educators also need to be aware of the importance of their own empowerment and active involvement in the processes of spearheading the empowerment process of the learners. By entirely leaving the process to the learners, the educator will be abdicating his/her responsibility and rendering him/herself irrelevant when s/he is most needed to keep the process on course and avoid unhelpful scenarios.

Part Three: Critical Theory in a Community-Based Education/Development Context – A Critique and Some Lessons

Despite the reported positive results of the second PAR cycle/phase, my working as a full-time member of VEDCO's project implementation team and on my research project committed to those assumptions, gave me the opportunity to experience the challenges associated with the application of socially critical ideals in a community context. This, together with my interaction with more literature outside and beyond the critical tradition, challenged my views on socially critical education and some of the assumptions and claims associated with it. I realised that the framework had inherent inconsistencies that undermine the achievement of its own goals. These were exhibited in several contradictions and tensions directly related to the key assumptions of this framework, in particular those on empowerment; power, powerlessness, oppression and the emancipation; and levelling power gradients, as is later elaborated.

Assumption on empowerment

Critical theories emphasise the relationship between education, empowerment and emancipation. Whilst I do not contest the validity of this assumption, in the case of this study, I found the concepts of empowerment and emancipation a bit problematic – firstly, because of the deceptively simplistic way in which they are used in critical literature, and, secondly, because of the variety of assumptions that accompany them. According to Usher *et al.,* (1997:187):

> Empowerment does not mean individual self-assertion, upward social mobility or increased disposable income or even a psychological experience of feeling self realised... it means... an understanding of the causes of powerlessness, recognising systematically oppressive forces and acting individually and collectively to change the conditions of life.

I found the above description to embrace the views of many critical scholars on empowerment. Nevertheless, my interaction with local farmers who participated in this programme makes me agree and disagree with it at the same time. Whereas I agree that becoming critically aware of the causes of powerlessness, recognising the oppressors and acting to transform the oppressive conditions constitute a major component of empowerment, I also

find this view riddled with discomforting assumptions that are not consistent with realities on the ground.

At one level, the above conceptualisation of empowerment is exclusive in one important way. The view emphasises the end result and ignores the contextual dynamics which underlie the so-called ideal. Using participatory methods in different communities to map out the existing socio-economic and environmental situation, communities were able to collectively identify, critically grade and prioritise the nature of obstacles and challenges impeding their capacity to lead more sustainable lives. Interestingly, most of the problems were related to people's immediate survival needs. Even after a deeper problem-causes analysis and probing with the 'but why' question, the answers were still tilted in the same direction. From a critical perspective, one could conclude that farmers were probably not empowered enough and therefore unable to analyse 'the deeper' causes of their problems, and that is why they stopped at the immediate causes. My contention is that, to argue that because people have not talked about what critical theory calls the 'deeper causes' of problems, then they are not empowered enough, amounts to an imposition of our own view of reality on people. I see this as a drawback of critical theory, for while it is a principle of critical theory to analyse the material conditions of life in order to discover falsehoods and as such become empowered to address the deeper causes of problems, some underlying assumptions of the tradition, such as what constitutes 'true empowerment procedures', and the desired outcomes are uncritically adhered to. This in a way evokes Lather's critique of critical theories for adopting technicist tendencies, to achieve instrumentalist 'emancipatory' goals and objectives, which she summarises as 'falling prey to the irony of domination and repression inherent in efforts to free one another' (Lather, 1991:59).

This discovery intimates an important suggestion that empowerment should not be as rigid a process as often presented by critical theorists. It is a process, the starting point of which depends on the context of the society in question. For it is argued under the same critical theory that knowledge of the world is always an interpretation of reality from a particular viewpoint (McKay & Romm, 1992), a point explored further by Krippner & Winkler (1995), both post-modern analysts, who argue that 'truth' is a matter of 'perspective'. Hence, although my initial motivation and expectation was to study how issues related to community politics and power-related structural injustices associated with resource use and management at different levels manifested in environmental educational activities at community level, I was convinced that in order for those issues to be understood, more obvious problems of poverty and food security had to be addressed first, secondary as they might have appeared from my own perspective. For as Angelson (1997:137) argued, and I was also convinced: 'Environmental thinking starts after breakfast, and with none, or insufficient meals, there will be little environmental thinking.' Naturally, from the socially critical stance that I had chosen, the change raised key questions and debates, for I had always believed that such a move would lead to an unfortunate situation where, like many other uninformed development workers, we would end up, as Ellsworth put it, treating the symptoms but leaving 'the disease unnamed and untouched' (Ellsworth, 1989:297). The fact that we were consciously responding to issues of utmost priority to the community convinced us to go ahead, fully committed to a participatory approach to community challenges and obstacles.

The initial outcomes of participatory training of farmers demonstrated more individual self-assertion, upward social mobility, increased incomes and a general sense of realised self-confidence for both farmers and extension workers. Whilst this did not constitute empowerment as is often described in critical literature (Usher *et al.,* 1997; Huckle & Sterling, 1996), in the case of the farming community and the NGO, it represented a significant push towards people's transformation. To the farmers, the visible oppressor, which was food insecurity and poverty, was beginning to retreat and they were taking more informed decisions on how to manage the resources at their disposal and even exhibiting a better understanding of the causes of their plight.

This evidence compels one to re-conceptualise empowerment as a process that starts at the current status of people's lives, and progresses according to the material conditions of the people in question. Within this process, the milestones in the form of the various sustainable achievements people attain in the struggle, mark the steps towards different levels of empowerment, but not the strict criteria established elsewhere. Secondly, contrary to the common socially critical assertions on empowerment mentioned above, in the light of this study it was revealed that empowerment includes individual self-assertion, upward mobility and increased disposable income, the psychological experience of feeling self-realised, in addition to *understanding the causes of powerlessness, recognising systematically oppressive forces and act individually and collectively to change conditions* (which is often over-emphasised). In the absence of the former factors which are directly associated with the basic survival of the individual, the latter can be rendered totally impracticable.

The major implication of the above evidence is that, as educators working towards community empowerment, it is necessary for us to look at the process horizontally and vertically. The struggle to achieve the practical needs (basic human needs) in life is a horizontal one. Any success in this direction places the individual or community at a level where they can begin to pursue the more strategic goals in life, which I have decided to call the vertical dimension of the empowerment process. This addresses the more critical issues of politics, power and the related structural dynamics. My view is that the two are integral components of the same process of empowerment and without one, the other cannot be achieved because both dimensions are complementary and as such equally important.

Assumptions on power, powerlessness, oppression and emancipation

Related to the foregoing issue, the results of the study demonstrated that critical theories make sweeping assumptions on power and powerlessness, oppressor and oppressed, which divide society into two diametrically opposed sections – the powerful oppressors and the powerless oppressed (Popkewitz & Brennan, 1998). I found this inconsistent with the existing reality in the society. Powerlessness did not always arise as a universal phenomenon for any specific group of people. I found it difficult to categorise any group or individuals as entirely oppressed, powerless or powerful. Poor as most of the farmers were, this did not imply that they were necessarily oppressed or powerless, e.g. they exhibited the power to reject or undermine the NGO's efforts; similarly the NGO was both powerful and powerless; the donor agencies were also 'powerless' at times.

Different individuals and groups expressed their power in various ways. The power of the villagers lay in their capacity to decide upon their actions independently and follow their own ideas rather than VEDCO's agendas, even when they appeared weak and vulnerable in their poverty, landlessness and food insecurity. This was demonstrated during all phases of the programme. In the first phase, they quietly refused to apply VEDCO's training because it was imposed on them and implemented at the wrong time of the year, trying to divert them from their programmes, which to the farmers would have spelt disaster. This forced VEDCO to respond to people's concerns in the second phase of the programme.

The way in which the villagers expressed their power often threatened VEDCO, an apparently strong NGO, its machinery and its donor friends. For instance, by refusing to respond to VEDCO's training that did not correspond with their personal interests, VEDCO was forced to rethink its approach and strategy as mentioned earlier. VEDCO itself and the donors were powerless in the face of farmers who refused to implement the programme as expected. Neither VEDCO nor the donors were able to keep their records and accountabilities straight without the cooperation of the farmers. Power was thus continuously changing hands. This demonstrated the fluidity of power and devalues the practice of branding people powerless, for anybody could be powerless at any given time. In the same way, identifying the oppressors was not always easy as shifts in power location often reflected shifts in advantages and disadvantages, and therefore levels of vulnerability to oppression. In this way, there were two obvious areas of disempowerment on the part of the farmers, namely: (a) their lack of knowledge of how much power they had over the future of VEDCO and donors, or else they would have used it to negotiate better deals for themselves; and (b) knowledge about marketing dynamics, especially at the international level which rendered them helpless in the face of exploitative middlemen. Theoretically, the above discussions find support in the writing of Foucault (1980), who viewed power as dynamic, dispersed, circulating, heteromorphous and always linked to knowledge. This in a way challenges the advocates of critical theory to look beyond and outside it in trying to explain socio-political dynamics.

Another finding that seemed to challenge the generalised notion of empowerment was related to the uniqueness of the communities VEDCO worked with. While it is anticipated in critical theory that collective action is necessary to deal with collective problems, in the case of my study I realised right from the beginning that collective action was not a favoured method of work among members of the community. Thus, expecting people to respond to problems collectively (Freire, 1970; Giroux, 1983) was an imposition of our own view of how communities should deal with their problems and contrary to the expectations of critical emancipatory learning and independent 'action-taking' arising from one's genuine understanding of the situation. Hence, prescribing the expected behaviour or semblance of an empowered community was in itself a manifestation of subtle technocratic assumptions, characteristic of the neoclassical framework and practically defeated the spirit behind the professed emancipatory goals of participatory development, action research and transformative education.

It must therefore be emphasised that power is not a possession or speciality of certain individuals or groups of people, which they can control and are free to dispense it as and when

they want. Power is dynamic; it shifts with time and the particular circumstances of people at a given time. The fluidity of power is part of the dynamic that ensures the survival of human society as it underscores the need for interdependence and symbiotic living. Secondly, society is not polarised into two diametrically opposed groups of oppressors and oppressed. The ability to oppress and be oppressed migrates with the shift in the location of power. In addition, because there are several forms of power and locations of power, even the fields of oppression can be many. Hence, the different dimensions of oppression based on aspects like gender, class, age religion, ethnicity and race.

In the final analysis, assuming that some people have power and others do not is a serious source of disempowerment for all people. In this case, the power of the so-called powerless is not utilised, while at the same time the powerlessness of the so-called powerful is not addressed, yet the two are important in addressing fundamental causes of disempowerment. Therefore, as an educator within community-based contexts one needs to be sensitive to community power dynamics as they directly and indirectly filter into the entire set up of learning processes and influence the results.

The socially critical assumption of levelling power gradients

Critical theory aims to reduce the power gradients between those with power and authority to dominate others and those considered powerless. This is when people gain the capacity to organise themselves collectively and without authoritarian control (as explained in Janse van Rensburg & Lotz-Sisitka, 2000). I found this assumption to be based on the defective premise of a polarised society of powerless and powerful classes of people. In situations with fluid power relations, like the one described above, a universal levelling of the power gradients is not easy to achieve due to the subtle nature of power structures and its many locations and manifestations.

At another level, the assumption that society is polarised does not take into consideration other scenarios like that of VEDCO, which is not necessarily on any particular side of the main divide, but rather a 'friend' to the so-called powerless. The truth is that even this kind of interaction involves power relations. Even in this case, I found the harmonisation of power relations a complicated matter because of the different positions occupied by the different people in terms of their socio-economic and other privileges. These positions would not only affect the interrelations between them, but also their understanding of each other's situation. Ellsworth (1989) brings out this paradox in her own situation where, as a person from a privileged section of American society, she was constrained to understand the situation of her racially harassed students.

Ellsworth's observation resonates with what happened in this study. VEDCO's understanding and analysis of the situation of the villagers was constrained by their different locations as follows: educated, employed, smartly dressed, compared to the villagers, riding motorbikes and able to advise farmers on matters that appeared complex to them. The extension workers' understanding of poverty could not be the same as that of the poor farmers. This revealed itself in some of the assumptions that were made about farmers, despite the participatory engagement. The assumption that all farmers could afford to get the necessary requirements for sustainable agricultural practices was a case in point. The question that arises here is, whether

power gradients can ever be effectively levelled, given the multiple locations of individuals and groups as a result of the fluidity of power in society as discussed earlier. I see this as an idealistic contention of critical theory that is very difficult to achieve in its entirety. The fact that it starts from the assumption that one group of people is empowered and the other is not means that it is flawed even before the process begins. My view is that, instead of aiming to level power gradients from a flawed technicist view of empowerment, as if it is a one-way transfer of power by the empowered to the disempowered, one should engage in a process of mutual empowerment from all angles through increased knowledge of and about each other, in order to appreciate one another's situation and be able to work towards each other's goals. My view should not be misconstrued to mean that no empowerment could ever take place. In this study, certain levels of transformation that could be seen as empowerment were attained but the degree and sustainability of the observed changes remained open to question.

Concluding Remarks

A number of lessons can be learnt and conclusions drawn from the experiences analysed in this paper. It reaffirms the ideological nature of education and points at the necessity for educators to be critically aware of this as they approach educational practice. The study has also demonstrated the potential of competing educational ideologies/theoretical frameworks to influence educational practice and breed inconsistencies and tensions whenever educators fail to clarify their own theoretical locations and take conscious steps to pursue them. In a community-based context, the paper has illustrated that not only competing educational ideologies, but also the competing worldviews of the different development actors and the incumbent complex community dynamics, exacerbate the magnitude of the contradictions and tensions.

With regard to the use of emancipatory methods, it has been revealed that although participatory educational methods are potentially empowering, they can be used in a technicist-disempowering manner, to meet the educators' interests, depending on the ideology of the educator, his/her capacity to make effective use of the methods or some other contextual factors beyond the educators' control. In the case of this study, this is evident in the shifts in the direction of the application of participatory methods in the different phases of the programme. The findings have reiterated the fact that technocratic training structures, methods and strategies encouraged dependency among learners and also exposed the falsehoods behind the technicist belief that learning can be cascaded and trickled down from lead farmers into the community, while ignoring the contextual factors in which learning takes place.

This paper has also illustrated that it is possible to achieve many of the goals of education as a social emancipatory process when pursued consciously using the appropriate methods and taking into consideration the contextual realities of a given community. Nevertheless, the critique of critical theory awakens us to the necessity to move beyond the simplistic uncritical adherence to some of the tenets of socially critical educational principles that may lead to instrumentalist outcomes, and instead seek their applicability within a given context. This helps us to re-examine the assumptions of critical theory on power, powerlessness and emancipation

and the role of education as an empowering process. We are made to realise that power and powerlessness are a little more complex, dynamic and fluid than often assumed. This has key implications for education in general and community-based environmental education as an empowering process in particular. It calls for educational programmes that employ processes that recognise the complexity of power and nurture strategies that can foster reciprocal empowerment for all stakeholders. It also implies educational approaches that emphasise synergy, go beyond and outside the rigid confines of given theoretical frameworks and seek theoretically appropriate and contextually relevant educational approaches.

Notes on the Contributor

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Endnotes

1 Habermas (1972) argues that there are three fundamental human interests; namely the technical, the practical and the critical or emancipatory, knowledge-constitutive interests that influence the different types of knowledge and educational processes.

2 Although the studies were in principle supposed to be participatory, in reality it turned out that participatory data collection methods were used technocratically to extract information from people, making the end product more of an organisational rather than a collective community/NGO programme.

3 Poverty is a major national problem in Uganda and a key policy concern towards which several major government interventions have been directed in the last decade. The country's major strategy for rural development for the current decade is specifically designed to address rural poverty through the modernisation of agriculture. VEDCO's concern for and focus on poverty alleviation through agriculture is directly linked to the national policy framework.

4 A study by Kyaddondo and Kyomuhedo (2000) discovered that a large number of households (45%) experienced a food deficit for at least three months every year.

5 RDDA is a top-down approach to programme development and implementation based on the traditional centre-to-periphery development model. The model entrusts the destiny of people to the hands of a few experts believed to have the capacity to analyse the problems of others and come up with appropriate responses to identified problem (Popkewitz, 1984).

6 E. Schuurman (1997) describes technicism as a fundamental attitude that seeks to control reality and to solve all problems with the use of scientific-technological methods and tools. Technicist approaches therefore make exclusive efforts to explain and deal with development and other socio-economic issues using science, technology and the related scientific methods as if the causes of problems confronting society are always exclusively technical and only solvable through similar means.

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A Paradox for Environmental Education: How can we 'deliver training to targets' using 'participatory, reflective approaches'?

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Abstract

Recent advances in environmental education have promoted participatory, active learning approaches. In this context, this paper reports on an evaluation of an environmental training component, integrated within a development programme on the Wild Coast, South Africa. Despite the adaptive planning framework and recommendations from the monitoring team, the programme failed to achieve action-based environmental education to the extent required. In addition, there were tensions between the 'participatory, reflective approach' promoted and the ethos of the development programme that was expected to 'deliver training to targets'. Although problems were experienced in this case, it is proposed that action-based environmental training, combining capacity building and ecological problem solving, is an effective method to incorporate an environmental component into many development initiatives. It is suggested that the paradox observed between participation and delivery is a general feature of such programmes but was exacerbated by the logframe characteristics, structure and constraints of this particular development programme. In future programmes this tension should be acknowledged and exploited positively to improve both environmental education and the development itself. A framework for integration of environmental training within a development or conservation initiative is presented.

Inroduction

Environmental education is seen to be an interdisciplinary and holistic form of education that is geared towards action and change. Recent advances in environmental education have promoted the use of participatory, learning-by-doing, action-based methodologies and a goal of 'beyond awareness' to understanding. These methodologies include Participatory Action Research (PAR) (Mordock & Krasny, 2001) and problem solving approaches (Blanco, 2002; Castillo *et al.*, 2002; Layrargues, 2000). There has thus been a move from passive reception of information to active participation within the learning process, whilst teachers become facilitators of learning.

This outcomes-based, problem solving philosophy has been particularly recommended in developing countries where environmental crises threaten livelihoods (Blanco, 2002; Castillo *et al.*, 2002; Layrargues, 2000). However, it is recognised that a focus on problem solving without

understanding may treat the symptoms of environmental problems without changing fundamental factors (including behaviours) to address the causes (Layrargues, 2000; Rathgeber, 1995).

A theoretical basis for action-based environmental education thus exists, but how easy is it to put such theory into practice? In this paper, I describe an experience in which tensions between the approach and the context in which environmental education occurred inhibited the ability of an action-based approach to optimise environmental training. We observed a paradox between the 'delivery of environmental training to targets' within a development programme framework and the preferred 'participatory, reflective approach'.

I begin by describing the development programme itself and explaining the role of environmental training within this context. I then elucidate the role that I played in evaluation of environmental training, discuss the difficulties in implementing evaluation recommendations and explore the paradox observed. Finally, I propose a framework for integration of environmental training within a development programme that exploits the tensions described as a positive catalyst for transfer of knowledge and skills. Detail of the evaluation process, evaluation results and lessons learnt are expressed elsewhere (White, Sisitka & Dumalisile, in preparation).

The European Union Wild Coast Programme

The Wild Coast region stretches along the coast of the ex-homeland of the Transkei from the Kei River in the south to the Umtamvuna River in the north in what is now part of the Eastern Cape Province, South Africa. The region is biologically valuable and local people live a largely subsistence lifestyle, supplemented by migrant salaries and pensions. The region formed part of the Transkei homeland under the apartheid regime and the consequence of this socio-political history is a legacy of poverty, overcrowding, poor education and growing environmental degradation. Improved livelihood options and maintenance of biodiversity are priority development initiatives.

The European Union (EU) Wild Coast Programme was thus designed to improve the income and employment of local people through assisting them in developing and participating in sustainable tourism initiatives along the Wild Coast. It initiated as a four-year programme in 2000, funded by the EU with the National Department of Environmental Affairs and Tourism (DEAT) as the contracted implementation agency. The implementation of the Programme for the first four years was, however, packaged out to a Programme Management Unit (PMU) and three specialised NGOs: PondoCROP (community enterprise support), Triple Trust Organisation (business and specialist skills training) and World Wide Fund for Nature: South Africa (WWF-SA) (environmental responsibility). The PMU had overall authority and responsibility vested in it to implement the Programme and each NGO reported to the PMU with regard to undertaking their contractual responsibilities and activities.

Programme objectives included raising environmental awareness and capacity to facilitate ongoing community based tourism development after the Programme ends; establishment of environmental management structures and policies; and provision of a development roll out

model for other regions. There were seven anticipated target results, including training in natural resource management.

The Programme was designed around a framework that was developed into a 'logframe': a logical framework approach producing Annual Work Plans (AWPs) in which activities under each performance area had to achieve targets by specified dates, within budget allocations.

WWF-SA had Programme goals to foster an appreciation of the natural environment, encourage community tourism enterprises in environmental best practice, fortify community based natural resource management systems and improve stakeholder relationships. Core interventions included provision of training and capacity building in natural resource management to 324 community members, traditional and elected leaders and fostering of environmental awareness in 5 000 local stakeholders (later changed to 1 000).

Environmental training and other activities were undertaken under contract by successfully tendering service providers, whilst a local WWF-SA coordinator integrated activities. Inception meetings were held between the WWF-SA coordinator, a PMU representative and the service provider and the subsequently developed plan of work was the blueprint to which the contracted service provider was expected to work, with interim and final reporting schedules. Consequently, the details of each environmental training course were provided within the Terms of Reference (ToR), clarified at the inception meeting and adapted depending on the results of the interim reports.

Environmental Training Within the Programme

Environmental education was thus only one of the goals of the Programme and the integrated training was expected to support main development activities. WWF-SA commendably attempted to employ an adaptive, bottom-up, collaborative approach to environmental training. They began by conducting a workshop with trainers to identify perceived training needs for environmental education in the region; later undertook a needs analysis where proposed target groups including government departments, community and municipalities were visited by a team who identified priority and non-priority needs and conducted further needs analyses at the end of Annual Work Plan 2 and Annual Work Plan 3.

In all, a total of 13 courses were provided by a total of six service providers to target groups including community members, people involved directly in the tourism enterprises, traditional and elected leaders, protected area managers and people involved in local Trusts and Committees. WWF-SA further attempted an adaptive planning strategy by implementing a monitoring and evaluation programme in which training could be reviewed and feedback referred back into the planning cycle. This evaluation procedure was implemented through several different projects that were undertaken by the author with other partners (see Table 1).

Table 1. Summary of the review, evaluation, planning and tracking tasks undertaken by the environmental training review team during the EU Wild Coast Programme.

AWP	Year	Contract	Tasks
1	2000	Trainers' workshop	Organise and facilitate workshop with trainers currently or likely to be working in environmental education on the Wild Coast to determine training needs.
2	2001	Design tracking system	Design a tracking system to follow graduates after training.
2	2002	Evaluation and planning of training	Hold workshop for stakeholder assessment of training to date, evaluate training, propose training plan for final years of programme.
2	2002	Implement tracking system	Track graduates from all courses implemented to date.
3	2002–3	Evaluation of training and strategic assessment	Evaluate training, help develop ToR, review materials, attend course sessions, plan for AWP4.
3	2002–3	Implement tracking system	Track graduates from training courses, recommend methods to enhance implementation of training, measure impacts of training.
4	2004	Synthesis report	Produce desk-top report synthesising evaluation results to date, indicating future training priorities and proposing exit strategy.

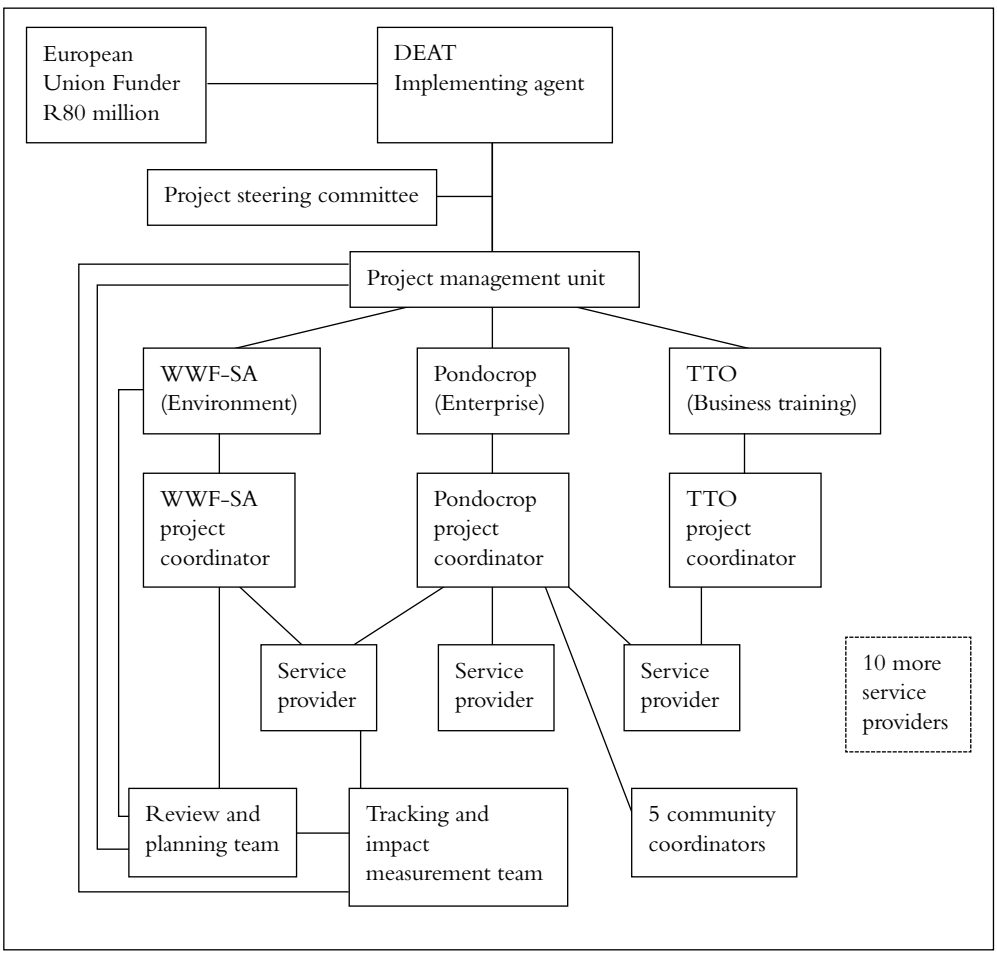
Tools used included interviews, questionnaires, workshops, indicators and assessment of outputs and impacts against stakeholder expectations (including Programme objectives). The complexity of the Programme structure and the interactions between role players are shown in Figure 1.

Contradictions in implementation of evaluation recommendations

The details of the evaluation results are reported elsewhere (White *et al.*, in preparation). Whilst many positive results were identified, this section highlights examples of recommendations made that promoted more participatory or action-based approaches that could not be implemented within the framework of the Programme.

The trainers' workshop highlighted the current lack of expertise in the region, with government departments planning to initiate related training and with several consultants involved in specific projects, but few potential service providers for the Programme. Despite a well designed and highly motivating first course, action plans for post-course implementation had not been developed and the focus of the tracking system was altered somewhat to assist in ensuring that proposed action plans could be implemented. However, WWF-SA found it difficult to alter the AWP that was underway to encourage graduates to achieve action plans.

Figure 1. Structure of the EU Wild Coast Programme demonstrating the role players, complexity of interactions and number of structural levels through which the review team had to communicate



A more participatory approach to course design was recommended for a course for protected area managers. However, despite some discussion with senior government officials, a lack of active participation limited its adoption by the department.

During evaluation, a paradigm shift was proposed from the concept of a training course to that of a training programme where: *training programme = course + action plan*. This shift supported a participatory, action-based, problem solving approach. Whilst WWF-SA and the PMU embraced this concept in theory, it was not very strictly regulated in subsequent ToR that were to guide ongoing course development. Even where it was made clear, most service providers were reluctant to adopt this principle, possibly because of inexperience in environmental education or with conditions on the Wild Coast. Late release of ToR and the need to appoint service providers registered for the South African National Qualifications Framework (NQF)

assessments limited service provider choice and this impacted hugely on the ability to deliver training using adaptive, participatory approaches.

For example, the action component was not effectively delivered in an environmental management planning course in which the trainer was expected to deliver a basic, contextualised theoretical basis and then mentor the practical development and initial implementation of environmental management plans for each enterprise. The trainer developed materials that were far too complex for the learners and on request for practical modification included only a single site visit.

A further example was the course for land use planning that was also meant to provide basic theory, supported by practical examples, and followed up with the participatory development of land use plans. This course was reduced to a three-day introduction to the concepts of land use planning. A course to train managers in the development of management plans through mentoring of plan development after a basic introduction to theory initiated an exemplary process, but managers had such limited initial levels of capacity that they failed to achieve targets and the trainers were unable (or unwilling) to adapt the course by intensifying mentoring, providing other support or modifying course goals.

It was recommended that, where possible, future courses should include participants from different groups to enhance relationship building and collaborative benefits; this successfully occurred in some subsequent courses. A recommendation for participatory curriculum development and subsequent facilitation with previous graduates was followed although in practice the curriculum development was rushed and organisational problems limited the success of this course.

A training plan was developed that envisaged a foundation environmental and tourism awareness course followed by building blocks of specific courses related to enterprise development, capacity building of people on trusts and legislation and natural resource management for leaders. Some of these courses were later provided but the delayed implementation of the foundation course precluded its foundation function for further courses, and the impediments to enterprise implementation and Trust establishment within the Programme prohibited specific environmental training in certain areas. Overall, Programme constraints delayed the strategic plan timescale such that by the time of implementation the plan did not fit the logframe and the final year of training was curtailed.

In an attempt to improve communication amongst Programme actors, templates for reporting by service providers and an evaluation protocol were developed, but were not employed. Evaluation indicated that adaptive planning principles were not followed within all courses despite recommendations for change from both WWF-SA and the PMU. It suggested that quality was being sacrificed in the quest for quantitative training targets. An early goal of WWF-SA that indigenous knowledge be recognised and incorporated into training along with Western views of the environment was not carried out by service providers despite its incorporation into ToR.

Results from the tracking system projects produced specific course recommendations that were mostly concerned with the implementation of skills, but were hindered because clear action plans had not been developed for most of the previous courses. A major positive finding

was the extent to which benefits not directly linked to knowledge gained were obtained, including improved relationships, better understanding of the views of others, self confidence and improved skills in presentation, communication and conflict resolution.

Whilst internal Programme issues caused delays that impacted on the environmental training component, external constraints such as poor transport and communication systems, severe weather, poor literacy levels in the region and a social authority undergoing transformation also impeded the implementation of recommended training plans.

The paradox: conflicting approaches

This development programme attempted to integrate environmental training using commendable approaches; they tried to implement an adaptive planning, needs-based, bottom-up approach to training and invested in not only monitoring and evaluation but also tracking exercises to permit feedback to the planning of training. In practice, however, feedback was not easily incorporated within the Programme, especially over the latter half of the Programme.

In addition to mechanical failures, there were tensions between the ethos of the desired training approaches and the need to fit training into the logframe. The tensions between the Programme structure and the adaptive, participatory requirements of environmental education are illustrated by the discourse used. Initially the Programme referred to recipients of training as passive 'trainees', but later they were acknowledged to be 'learners'. Only in one course, an extended workshop on legislation for natural resource management, were the 'learners' referred to as 'participants'. In many documents they were depersonalised and referred to as 'targets'; in some cases this was in the context of 'target groups' for training.

'Trainers' were more commonly termed 'service providers', a term that implied a technical actor rather than the participatory 'facilitation of learning' desired. The programme referred to the 'delivery of training', with little recognition of the 'participatory methodologies' recommended by the review team and in fact employed by some facilitators. The 'logframe' provided a rigid framework in which true adaptive planning was disrupted by schedules for reports, approval, payments and deadlines. It seemed that the Programme activities were forced by, rather than supported by, the logframe.

As an evaluation team we felt frustration that the potential of the environmental training within the Programme was not being realised. The tension between delivery by deadline and participation/reflection was also mirrored in other events in the Programme (such as the establishment of Trusts) and was felt by the NGOs and PMU coordinators.

In this reflection I now ask three questions: Why was the action-based participatory approach to environmental education not fully adopted by all role players? What were the causes of the tension between delivery and participation? Can we resolve these tensions and successfully integrate environmental training within future development programmes?

Difficulties in implementing the action-based approach

The overall Programme constraints indicated above included the delays in the development of tourism enterprises and co-management agreements that the environmental training was supposed to support. These delays arose partly because of the over-ambitious nature of the

Programme and partly due to complex unforeseen external local impediments, but they certainly strained the environmental training plan because of the asynchrony that grew between training and other activities.

Secondly, Programme training goals were quantitative and not qualitative. The complex structure of the Programme (Figure 1) inhibited the flow of information such that qualitative concerns and on-the-ground experience were difficult to translate into changes in logframe planning and further service provider activities.

Finally, despite the Programme flaws, it did attempt an adaptive training plan and promote the recommended action-based environmental training, yet some service providers did not embrace this strategy. This was partly because of the contextual isolation of service providers contracted to deliver a certain course without sufficient understanding of the broader context of the Programme activities. It also appeared that service providers felt uncomfortable moving from a teaching to a facilitation perspective and from a curriculum development to a problem solving approach. This is a common barrier to the implementation of PAR (Mordock & Krasny, 2001) and may have been exacerbated by the lack of training experience of some of the service providers employed under Programme constraints.

Hence it was difficult to implement the action-based approach because of the complex structure of this particular Programme, with difficulties exacerbated by the inability or unwillingness of trainers, external constraints and tensions between the participatory/reflective/action-based versus delivery/logframe approaches.

Tensions between delivery and approach

Were there factors beyond the attributes of this particular Programme that caused these tensions? In its optimal form, a logframe approach includes participatory planning in its development and extensive room for adaptation, but commonly these aspects are neglected in the application of logframes (Sartorius, 1996). In this case study, a more participatory team approach to planning and space for reflection and true adaptation would have reduced the tensions and made environmental training more effective. However, I argue that the different natures of participatory, action-based environmental learning and logframes mean that even in the best designed programmes, tensions will arise.

Participatory training approaches should be driven largely by internal factors, yet logframes, even with input from local expertise, remain externally driven. Participatory approaches are fluid, and may demand exploration of tangents identified by local needs; they recognise the need to respond to internal issues related to the actions being taken, relationships between players and changes that arise during the course of training. Indeed, a success indicator for PAR is a willingness to alter training as needs arise (Mordock & Krasny, 2001). On the other hand, logframes predict targets and set timetables.

Recommendations for future integrated environmental training programmes

The paradox has been highlighted. So how can future development programmes manage these tensions? Is it possible to successfully undertake an environmental training programme promoting participation and action-based training as part of an externally funded, donor-driven

development programme? I argue that it is, and that it should be encouraged. In company with others, I suggest that the environmental imperatives in developing countries are such that environmental education should be action-based and should combine problem solving and capacity building (Blanco, 2002; Castillo *et al.*, 2002).

In this case study, the tensions had negative impacts, limiting the extent to which participatory processes could be implemented. An uneasy and unacknowledged compromise was reached between the two approaches, with the logframe process seeming dominant. However, if carefully managed, there can also be positive aspects from the tensions between approaches. Both approaches have their merits; participatory, adaptive, action-based environmental training is well documented to have benefits, and the support of a framework that can link training to initiatives, thereby grounding it and sustaining its momentum, can be beneficial. The broad nature of environmental education means that a strategic framework within a context is required for it to be effective (Fien *et al.*, 2001) and limited resources can be effectively allocated to priority training goals. Even in this case study, some advantages of both approaches were observed. The Wild Coast of South Africa is a difficult place to implement a development initiative for the bio-physical and social reasons already outlined. Without a timeframe, it is possible that attempts to perfect the approach in each course would have been delayed by people, place and circumstance to the extent that little was achieved. Perhaps it was better to have achieved substantial amounts of non-optimal training under pressure from the logframe approach than to have only undertaken a minimum of training that fulfilled completely all of the participatory, action-based requirements.

But had the tensions been acknowledged, a process more accepting of the participatory approach would have occurred, and an insistence on participation, adaptation and appropriate action would have altered the Programme rollout such that other aspects would also have benefited.

A framework for integrated environmental training within a development programme

To consolidate the lessons learnt, I offer a framework for use by future development or conservation initiatives, particularly but not exclusively those in developing countries, to enhance a combined approach to capacity building and environmental management (see Table 2).

The literature on development programmes is extensive; this framework expands on lessons learnt in this case study to emphasise particular points and is not intended to comprise an exhaustive checklist. In recognition that the logframe approach adopted by the Programme in this case study was a potential strength, I suggest retaining it, but greatly increasing the participation in its planning and continual adaptation and recognising and exploiting the tensions between approaches that will emerge.

The development programme itself must meet the needs of the local communities and national agenda and hence requires a bottom-up, collaborative approach to determination of goals and significant participation of local structures within it. Too often development programmes, especially those addressing environmental issues, reflect the agenda of the donor country or funder (Rathgeber, 1995). This framework proposes participation of local bodies in the initial planning stages of the programme, plus an early assessment of environmental training

Table 2. A framework for integration of an environmental component founded on action-based environmental education into a sustainable development initiative

Programme Development Step	Actions Towards Action-Based Environmental Education
Planning of development or conservation programme	Participatory appraisal of livelihoods. Preliminary training needs analysis linked to activities. Explore need for capacity building of local institutions. Preliminary analysis of available trainers. Explore sustainability options for skills and activities.
Design structure of development programme	Ensure simple structure. Include local practitioners in participatory planning process. Embed in local government, link to regional and national drivers. Combine local coordinators with external expertise as required.
Develop key performance areas	Include local/national priorities. Include quality as well as quantity-based goals.
	Each task should be an action for which a capacity building element is required. Ensure monitoring processes are prominent.
Set up adaptive planning framework	Ensure targets are realistic. Ensure time for reflection and adaptation. Allow for meetings and feedback points. Agree on payment and reporting schedules at all levels.
Environmental education component	Conduct detailed needs analysis. Explore best approach in context (include recognition of indigenous knowledge, promote participation, allow for train the trainer, link training to action). Design training plan (may include foundation course followed by specific training linked to tasks in key performance areas). Take cognisance of other potential benefits (mix groups to strengthen relationships, potential market for skills developed, etc.). Ensure training contextual and on site. Establish monitoring programme with evaluation, feedback, tracking and impact measurement. Strengthen internal evaluation procedures for each training task. Enhance ability of graduates to spread understanding through provision of presentation skills and resources.

needs and the availability of suitable trainers. This could shift the focus of the early parts of the programme to capacity building of local institutions if required. A skills and training needs analysis, including all needs, could at this stage indicate feasibility of the activities identified.

The development programme structure can then support an adaptive, needs-based and monitored training plan with goals linked to activities in the programme. There should be an emphasis on quality rather than merely quantitative targets. These goals and timeframes should be reviewed and if necessary adapted at stages within the programme. Embedding structures within local institutional planning and association with recognised regional goals is important. A simple programme structure would enhance communication processes and regular meetings of key stakeholders would facilitate communication of qualitative issues better than reports.

Investment in an evaluation process that comprises both formative evaluation during the training programme and summative evaluation at its completion (Robottom, 1985) should be made. The formative, monitoring process must combine quantitative methods to provide a general frame that qualitative methods complete (Rovira, 2000), with particular emphasis on the qualitative methods (Schultze, 1991; Robottom, 1985) and is critical to manage and exploit the paradox identified in this paper. Methods could include discussion with course graduates, trainers, local community leaders, government officials and other stakeholders. Results from this evaluation should feed back into the training programme with sufficient time for reflection on learning and space for adaptation based on recommendations. The summative evaluation should also acknowledge the value of non-quantifiable outcomes; many impacts tend to be vague, dynamic and value laden so are difficult to assess (Fien *et al.*, 2001), but if the participatory approach is followed, they will hopefully include important outcomes. The evaluation should expand beyond the measurement of knowledge, attitudes and behaviour proposed by Hungerford and Volk (1990) and Knapp and Poff (2001) to include general life skills, confidence and abilities, relationships, livelihood changes and impacts of the training approach on other aspects of the programme. In this way, long-term social consequences as well as effects on conservation and environmental degradation may be acknowledged.

The advantages of an environmental training programme integrated within a larger development programme should be exploited. Evaluation of this training programme illustrated that action-focussed training enhanced understanding and implementation of learning, as has been proposed previously (Blanco, 2002; Castillo *et al.*, 2002; Layrargues, 2000). Environmental education is a multidisciplinary form of education that can transcend the boundaries of traditional disciplinary teaching (Rathgeber, 1995) and so is better suited than many other forms of education to integrate into a development initiative. Whilst being grounded in action, it has a political character (Layrargues, 2000; Robottom, 1985). Our experience in this case study, and the proposals of many other authors, indicate a much stronger potential role for environmental training than in the provision of technical skills. If a participatory, action-based approach to environmental training is effectively followed, environmental education can become a process of mediating social-environmental conflict (Layrargues, 2000), and, more, can provide a sociological perspective to allow people to improve their livelihoods and adapt to change (Barraza *et al.*, 2003). Provision of such lifeskills and social empowerment goes beyond the capacity of 'traditional' environmental education to combine capacity building and problem

solving functions (Blanco, 2002; Castillo *et al.*, 2002). Whilst extensive debate rages regarding the role/form of environmental education within/for sustainable development (e.g. Reid, 2002; Gough, 2002; Stables & Scott, 2002), I propose that environmental training integrated within development programmes will enhance the sustainability of the development initiative providing the tensions between participatory, reflective, action based and logframe, delivery approaches are managed.

Conclusions

A paradox between the approach of participatory, reflective, action-based environmental education and of the implementation of a logframe-driven development programme was highlighted. It is proposed that in future development and conservation initiatives, this tension can be managed to positively improve the initiative by encouraging an adaptive, participatory approach, yet also enhancing environmental training by ensuring the momentum of training and the linkage between training and environmental problem solving. The additional benefits of environmental education in conflict resolution, relationship building and the development of other lifeskills are acknowledged. A framework for integrating action-based environmental training within development programmes is offered to enhance livelihoods and biodiversity conservation, particularly in other developing countries.

Notes on the Contributor

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Towards an Authentic Indian Environmentalism

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Abstract

Despite elaborate policies and programmes to deal with them, environmental problems in India are generally worsening. In this paper it is argued that we are not adequately diagnosing these problems. There is a tendency to focus on effects, i.e. on technical definitions and solutions, rather than on causes – which are predominantly social, economic and political. In this we have followed the lead of Western environmentalism. We must first of all, therefore, question this Western perspective. Then we must attempt to articulate an authentic Indian environmentalism. To do this we must take into account the perceptions of all those people in our society who are being marginalised by 'development' and globalisation and their many creative responses to the environmental problems they face. This paper describes some of these responses and reflects upon them.

Introduction

A critical examination of the ways in which environmental problems are described in Indian school textbooks reveals a disturbing lack of relevance to ground realities (Jackson, 2002b). In the first place there is a disproportionate attention given to the concerns of the minority of affluent, powerful urban dwellers, in particular to pollution and wildlife conservation. The environmental problems of rural India are scarcely mentioned, or at least not in terms that are meaningful to rural children and their parents. Second, the textbooks tend to define environmental problems in terms that suggest they can be solved by purely technical means; physical, chemical and biological definitions are offered, but virtually no mention is made of their economic, social and political determinants and consequences. Third, problems tend to be defined on huge scales in terms of children's lived reality – national and global scales – which only adds to the curriculum yet another chunk of meaningless facts to be memorised.

This lack of relevance is seen in all spheres of environmental policy and practice. In this paper it is argued that this results from identifying and defining our environmental problems from the perspective of contemporary Western culture. An attempt must therefore be made to formulate a more authentic Indian environmental perspective. To do this, my argument runs, we must be prepared to question the core assumptions of Western culture as applied to our country and to learn from people in all those segments of our population that are being marginalised by modernisation, 'development' and globalisation. This, I would say, is an urgent task for all postcolonial countries. Taylor and Van Rensburg (2002) and Schreuder *et al.* (2002) have described recent efforts in this direction in South Africa.

What Are the County's Environmental Problems?

It is not my intention to draw up a comprehensive list of India's environmental problems, but rather to highlight, through selected stories, some points of view that are not taken into account by current environmental policy.

First, a question of scale

In attempting to define and describe environmental problems meaningfully the concept of an ecosystem can be useful. In the first instance it should be the local ecosystem, i.e. the traditional village. Larger regional ecosystems, upto and including the global ecosystem, should be of secondary importance on the principle that all environmental problems must primarily be tackled on a local basis if there is to be any possibility of solving them at the regional or global levels.

The rationale for this proposal is that we must relate environmental problems to specific sets of individuals, clearly defined communities, that have, or can acquire, the capacity for dealing effectively with them. A community in which everyone potentially knows everyone else, and a small, distinct geographical area, have been suggested as criteria for defining a locality (Jackson, 2003c). Only if local ecosystem problems are adequately defined over the entire country, will realistic national and global policy options slowly come into focus.

The town and city, while not ecosystems, can be thought of as discrete geographical entities for which it is possible to construct energy, water and material flow models. If cities are too large to qualify as 'local' entities, then in the first instance local neighbourhoods might be appropriate. A fuller understanding of a city is possible when it is viewed as a part of a regional ecosystem (Suman Pande, pers. comm., 2003).

When introducing school children to environmental problems, it is also probably more effective to begin with local problems that are concrete facts of their immediate personal experience, and only when they are older gradually shift the focus to more abstract regional and global problems, taking care to show how the local and the global are related.

A corollary of this ecosystem approach is that the residents of the ecosystem must themselves identify and define the problems they face. If problems are not recognised, or, if recognised but inadequately defined, they are not problems that can be solved. Outsiders' suggestions or directives, even if reasonably correct, may not be understood or accepted.

The question of objectivity in identifying environmental problems

People mention only the problems they perceive, and their perceptions are determined by their special socio-economic group interests and, for educated people, by their school textbooks and the media, rather than by what is actually there. An example from the experience of the Uttarakhand Environmental Education Centre (UEEC), an NGO working in the mountainous region of Uttaranchal state on India's Northern border with China (Tibet), will be instructive in this regard. To help formulate an environmental education course for rural schools, and to prepare teaching materials, workshops of local school teachers and NGO personnel, most of whom were born and reared in the area, were organised. However, it was found that the

participants could think and talk only in terms of pollution, wildlife conservation, deforestation (of government forests), global warming and ozone depletion that feature in the media and existing school textbooks. To get started, therefore, the UEEC staff designed a course focusing on the problems of village land and forest degradation (described briefly in Jackson, 2003c, and more fully in Pande, 2000). Later, these same teachers, now with two to three years experience of the course, were exhilarated to be teaching something relevant to their and their students' everyday immediate life concerns, the only part of the curriculum that does so. Many of them came to realise that their own life experience and knowledge were legitimate, indeed vital. This change in outlook, resulting from a process of transformative learning (Jackson, 2003c), released much enthusiasm and not a little creativity that has enormously enriched the course in its subsequently revised forms.

It was also found with this course that children, exposed only to the standard textbooks (which had already begun to be infused with environmental concerns before the UEEC course began), and who had to help daily at home fetching fodder, fuelwood and water, when asked what use forests are, replied: 'They produce oxygen.' After going through the course their own priorities – fodder, fuelwood, water – were legitimised. The point of all this is that producing oxygen is not adequate motivation to children to work at regenerating their village forest and then actively managing it, but fodder, fuelwood and water are. And at the middle school level (grades 6 to 8, 12 to 14-year-old children) it is not really important that they appreciate the fact that village forests help ameliorate the problem of global warming. Such understanding can come in due course at the high school level.

Perceptions of the affluent

If children and adults have trouble in identifying and defining their real environmental problems, we must look for the influences that are determining their perceptions. We have to ask who writes the ('infused') textbooks children study, and who produces the print media and television programmes that they and their teachers (and all the rest of us) are exposed to? English-medium-educated, upper-income group urban dwellers. And where do they get their environmental knowledge and concerns? From the international media, international symposia and international aid agencies, all of which are dominated by Western thinking.

These observations alert us to the need to understand the viewpoints of people in rural communities in formulating effective environmental policy. It is clear that what the urban environmentalist and policy-maker consider an 'environmental' problem is for them a matter of livelihoods.

Perceptions of rural people

The perceptions of rural people are not, however, uniform. The people of Uttaranchal, for example, like those of rural people in all the so-called 'backward' areas of the country, are aware of the complex of environmental problems of land and forest degradation only to the extent that they perceive that the land can no longer support them. Not only are supplies of essential life-supporting materials (food, fodder, fuelwood and water), which they traditionally procure from their local village ecosystem by their own effort, inadequate, the wherewithal (compost

and water) with which to produce commercial crops is severely limited. Instead of asking why the land does not support them, they come to the classical solution: we must migrate. Throughout all history when a human community degraded its local environment so that its productivity decreased, and/or the community grew too large, people moved elsewhere. In the past there was always virgin land somewhere that could be settled. In the mountainous part of Uttaranchal state this pattern was evident in the 19th century in the establishment of new villages higher up the slopes by refugees from older, valley-bottom villages, and in the 20th century by the migration of men (often without their families) to find jobs outside the state. The cause of this forced migration is conventionally seen by outsiders, and the men who migrate, as economic poverty, i.e. a lack of cash income, while the far more important cause, a lack of life-supporting materials, is perceived only by women whose work it is to procure them. This latter is termed 'ecological poverty' (see Box 1). Because of ecological poverty rural people in degrading ecosystems become 'ecological refugees', or 'ecosystem refugees' in the terminology of Gadgil and Guha (1995). They are transformed into the urban poor, and their presence in such huge numbers in the midst of urban affluence is a pointer, if we can read it, to the most serious of the country's environmental problems.

Box 1. Ecological Poverty

The degradation of village land leads to what has recently been termed 'ecological poverty' (Agarwal, 1998), but which was first described a quarter century ago by Sri Madhava Ashish (1978, 1979). This poverty results from shortages of basic life-supporting materials – food, fuel, fodder and water – and not from a shortage of money. Village people obtain these materials from their own land (both from their own cultivated land and from the community-owned village common land). Many of these materials do not have a money value, except in theory, because they are bulky, perishable and have no practical substitute; water, green fodder, fuelwood and dry-leaf animal bedding material are examples. They are needed daily by every family; if quantities produced fall below minimum requirements, deprivation (i.e. poverty) occurs. The results are poor health and hygiene, excessive workloads for women, and low school enrollment of girl children (Pande, 2001b). In an environment of scarcity of these materials, even a family which has a good money income from paid employment suffers. And no amount of money pumped into rural areas as conventional 'development' or welfare can relieve ecological poverty. It must be tackled directly.

During the colonial period, and even more so during the past half century of 'development', modernisation based on a Western model has captured the imagination of most Indians. At first it was the elite, a class created originally by the British as a strategy for domination, but now the myth of Western-style modernisation has been internalised by even those who are being marginalised and exploited by the social and economic order it has given rise to. The dream of the 'good life' in the city, portrayed by the media, is now every rural child's, and the fondest hope

of his/her parents. Curiously, therefore, the myth of Western-style modernisation reinforces the age-old reflex of environmentally-stressed communities that to survive must migrate. Young people and most older men, because of their greater exposure to education and the media, are writing off traditional village life and livelihoods.

Rural people have come to view education as the only escape from poverty (defined as monetary poverty). And the school curriculum itself fosters this view, for it aims at preparing students for university and careers in government service, business and the professions. Most rural students are not, however, able to compete successfully with students from urban middle and upper classes for university admission. And they have no preparation for earning their livelihood on the land either. The school curriculum for rural areas could provide vocationally-oriented education in the form of concepts, knowledge and skills needed for ecologically sound land management, which means, in this setting, environmental education. Such an option does not occur to the urban-based educational planner and policy maker who are pursuing a globalisation agenda. Nor is it seen as an option by rural parents. Thus village people are initially puzzled when introduced to the UEEC course and when students are taken along to them to learn about the village ecosystem. They do not see how village life and activities could be of any relevance to education (as they understand it).

In spite of all this, a few rural people in all parts of the country are correctly diagnosing their environmental ills and seeking to cure them on their own. In the non-green-revolution areas of the country women are often taking the lead because they understand better than men that their main problem is ecological poverty, and are focussing their attention on the rehabilitation of village forests through community action (Jackson, 2000). In the green-revolution areas individual families are pioneering alternative farming systems on cultivated land badly damaged by chemicals (Alvares, 1999).

In Uttaranchal numerous village women's groups have formed spontaneously or with a lead from local NGOs. Three common features of these groups are:

- The women have given up hope the government or anyone else will solve the problem of their daily struggle to obtain fuelwood, fodder and water. They come together and formulate an agreed programme of work. Often, once they get going, their men begin lending support and practical help.
- The groups are representative in membership and democratic in functioning. Meetings are held periodically and conducted informally. Agreement is reached by consensus.
- All families in the village share equally the work and expense of implementing their plans, and all share equally the fodder and fuelwood from the rehabilitated forest plots.

We see here a revival of the traditions of local autonomy and self help which began to decay two to three generations ago and which are almost extinct today.

The women are at the same time challenging the marginalisation of the economically and socially disadvantaged members of village society since they focus on community resource management by all families and for all families equally. They are also challenging traditional gender discrimination by taking a lead in managing village affairs, and doing so in accordance with their own perspective, which accords the highest priority to finding solutions to ecological poverty. Yet other activities are the setting up and management (with UEEC assistance) of

pre-school centres for their children, and confronting the problem of alcoholism among their menfolk. All this constitutes a radically new role for women. They are not, however, entirely dismissive of tradition.

India has inherited a colonial bureaucratic system of government aimed at centralised control of people and natural resources. The administration of postcolonial 'development' programmes has been the responsibility of this system, and of NGOs who, by and large, attempt to implement equally centralised programmes with an international donor aid agenda. Local communities, therefore, are not seen as having any other role than that of passive recipients. This strategy has largely failed, creating widespread cynicism and deepening despair.

The village women's groups in Uttaranchal are clearly challenging this governance paradigm, arguing, in effect, that 'development' is something that must be done by people themselves, for themselves, and in their own way. In our (UEEC) attempts to lend a helping hand, we have been guided by this insight. We have come to see that development should be a process in which rural communities experiment and learn as they go along. We outsiders who attempt to participate in this process must also be prepared to learn; there are no formulae; every community must find the best solutions for its particular problems.

Elsewhere in India also rural people are tackling environmental degradation, and they too do not speak of the 'environment', but of livelihoods and community (re)building. In the low-rainfall, drought-prone areas of Northwestern and Central India village communities are organising themselves to reconstruct long-neglected traditional water harvesting and storage structures and build new ones. At the same time they are re-foresting barren and eroding village common land. All this results in rising water tables and more water for household use and irrigation, thus reducing ecological and economic poverty and forced migration. In doing this they have sometimes come into conflict with government, which according to 19th-century laws that are still current, owns all water; people have no right to interfere with the 'natural' flow of water. (For a case study see the report on the Aravari River in Rajasthan, a river which 'came to life again', in the Resurgence magazine No. 206, May/June 2001.)

Other dimensions of water scarcity usually escape notice, such as in villages in arid areas where only the poor suffer deprivation. Large land owners can afford to sink deep tubewells and grow water-intensive cash crops like paddy and sugarcane. This lowers the water table, drying up traditional wells and shallow tube wells on which the smaller land owners depend (Mehta, 2003). Slums and areas of low-income housing in big cities suffer acute water shortage, while the colonies of the affluent enjoy good supplies. Not only that, numerous water parks and golf courses are springing up for the amusement of the urban elite (Sainath, 2004).

The 'green revolution' in India and elsewhere in the postcolonial world has wrought extensive environmental damage, economic ruin, ill health and social disintegration (Third World Network, 1994; Shiva, 1992). In response, individual farmers here and there all over the country are experimenting on their own with organic farming systems. Over 100 cases have been documented by Alvares (1999). They have virtually no recognition or institutional support; they too are pioneers presenting us an alternative vision of the future of farming and rural life. They are challenging the entire scientific edifice underlying modern agriculture

(Jackson, 2002a), the concept that agriculture is a business, and the notion that food should be an internationally-traded commodity.

What Causes These Problems?

It is important for people to recognise when, and to what extent, their problems are self-created. This paves the way for their solution through individual family or local community action. Ascribing the cause to others or to 'the system' leads only to a sense of helplessness and inaction.

The women in the villages of Uttaranchal have tacitly identified, by the solutions they are formulating, the cause of their problem of village forest degradation as their own defective management. This is a significant development. The grazing of cattle, buffaloes and goats in village forest is a common, traditional practice. In a forest biome, however, the grazing of domestic animals gradually destroys forests by blocking the natural process of continuous self-renewal. (The natural vegetative cover of the entire Indian subcontinent, except for the far Northwest, is forest.) The same can be said of fire. The first task in village forest rehabilitation is therefore to stop grazing and check fires. This requires alternative animal and land management strategies.

But this is not the whole story. During the 19th century the British government systematically took over large chunks of village forest all over India to be managed for commercial timber production. Village people were excluded. This policy has continued in independent India. In Uttaranchal there have been numerous violent and non-violent protests (Guha, 1989) and widespread pilferage from these government forests. This, combined with 'scientific', but in reality ecologically unsustainable, management, has resulted in widespread degeneration of these forests, in many cases to treeless, eroding 'wastelands'. At the same time village community life was stressed by the pressures of modernisation; competitiveness replaced co-operation, accelerating the degradation the forest left to the village.

The Forest Department now tacitly acknowledges that it cannot manage its domain. In the past two decades, joint-management projects between village communities and the Forest Department – with a share of the forest produce to the community – have been launched with some success. Many rural people and rural NGOs, however, have come to view the government as unnecessary to the management of forests. The counter argument is that village people are irresponsible and greedy and would spoil the forest, such as it is, if returned to them. The charge of irresponsibility, however, will simply not stick to the village women's groups such as were described earlier. They seem to be the best option we, as a nation, have. But to make this option a reality will require the sort of development proposed in the previous section.

Similarly with the communities who neglected their traditional water-harvesting technologies. From the colonial period onwards government took on itself the responsibility of supplying water in rural areas through large and small engineering works that divert surface flows. It also prohibited rural people by law from interfering with the 'natural flow of water'. Only with the failure of this policy (in terms of increasing drought conditions) have they begun defying the law and asserting their rights over water. As a result of this, and of a recent succession

of bad monsoons, some state governments are now seeking to help and not hinder these communities.

In other instances 'environmental' problems are caused entirely by forces acting on local ecosystems from outside. Tribal communities dependent on hunting/gathering and shifting cultivation have inhabited forests in the tropical, mountainous areas of Eastern and Central India for millennia. By and large their livelihood systems have proved, by their very endurance, to be sustainable (Jackson, 2001). As the modern state has attempted to 'develop' these communities and taken over huge areas of their customary forest tracts to build dams, accommodate timber and mining interests, and to set up nature reserves, tribal communities have been stressed culturally and in terms of their livelihoods. Also, population pressure on the remaining un-confiscated forest area increases as inadequately compensated oustees encroach on the customary areas of other tribes, and sustainability is lost (Fernandes *et al.*, 1988). This, in the eyes of policy makers becomes an 'environmental' problem, and generally the tribal people are blamed for it – because they are 'primitive' and 'don't know any better'. This is leading to immense human suffering and even armed rebellion in large areas of Eastern and Central India.

The nature conservation agenda of the Indian urban elite and Western conservation interests sees its objective as saving 'nature' from people who are spoiling it. The 'people' are those who have lived in the areas declared 'nature reserves' for centuries or millennia and those who seek commercial gain, legally and illegally, from the same areas. It is difficult to check the latter by laws and police when we are unwilling to deal with the engine of industrial development that drives the plundering of such areas. As for the former, conservators do not seem to realise that there are no landscapes left on earth that have not been shaped by human presence (Pretty, 2002). The people living in and around the areas designated reserves are an integral part of nature as it is seen there today and which the conservator wants to 'save'. Seeking to exclude local people is a logical contradiction, for how can it be preserved as it is without their continuing activities? It also reveals an assumption that human beings are not a part of 'nature'.

It is necessary to add that the same urban and Western environmentalists who are so passionate about biodiversity and landscape conservation in nature reserves are usually unconcerned about these same issues in green-revolution farming areas where it would be 'bad for business'. What does this tell us about their environmentalism?

Coming back to Uttaranchal, the effect of mining on a settled agricultural community may be recounted from the point of view of residents of Khirakot village (see Box 2).

Box 2. The Women of Khirakot

Here is an example of a school lesson designed explicitly to explore the problem of the environmental impact of mining. It was included in a preliminary version of the UEEC course offered to students of grade 10 (16 year-old students). Students are told the story of the village of Khirakot in Almora District, Uttaranchal State (Centre for Science and Environment, 1985). A contractor from Kanpur, an industrial city, in Uttar Pradesh State obtained a license to mine soapstone in the forest near the village. Local men were first employed, but they were replaced by outside labour when they began to complain to the

contractor that the mining was destroying their fields and forests. Mine spoil spilled down the mountainside, inundating their cultivated terraces and a new oak plantation. The women forcibly disrupted the work and collected money for a court case. The mine operator attempted to intimidate them, but they stood firm. One woman summed up their resolve this way: 'The mining was destroying our lives, our children's future. How could we let it continue?' After a prolonged struggle, the mining lease was cancelled. The women then began rehabilitating their land and forest plantations (Centre of Science and Environment, 1985).

The students, after reading this story, are asked the following questions:

- Why do you think that the people of Khirakot valued their village forest more than the jobs in the soapstone mine?
- Should all mining in Uttaranchal be banned?
- Is it possible to mine for soapstone, magnesite, etc. without harming the environment and the livelihoods of the local people?
- Why should a businessman from Kanpur have been given a lease for mining at Khirakot and not the people of Khirakot?
- Ground soapstone is used to make talcum powder. The factories to make talcum powder are located in Kanpur and other industrial centres. Why could the people of Khirakot not set up a factory to manufacture talcum powder?

On the coast of Eastern India the Tata company in collaboration with the state government of Orissa planned to take up commercial prawn production, with a view to exports in the Chilika lake, a huge lagoon of brackish water spread over an area of 11 000 km^2. The approximately 100 000 fisherfolk who have until now depended on the lake for their livelihood, organised a protest in which local students joined them. They argue that their fish catch will decline, that the high embankments proposed to be built in the lake will increase the threat of floods and may lead to waterlogging in the surrounding area, that the ecosystem will be polluted with protein feed supplements and that the large flocks of migratory birds that now visit the lake will be kept away (Dogra, 1992). What was at issue here: environment, livelihoods, human rights, development or conservation? (This project was halted, but many similar ones are going ahead – with the anticipated negative 'side effects'.)

More recently a new species of 'environmental' problem has been created for the poor. Industrialisation has so far encouraged manufacturing in urban areas. This has created toxic smog and water, bad smells and unsightliness. A Supreme Court order a few years ago required factories in Delhi to clean up their operations or shut down. The units affected decided to relocate to nearby rural areas where the Court's order does not apply. There they are depleting local ground water supplies and poisoning land, air and water. The original problem has not been solved, except in the eyes of the urban environmentalist. In general, rural communities have not had the strength to fight this new threat to their livelihoods and health. This is but one aspect of the drive to 'beautify and clean up' urban areas all over the country. In the process

slum-dwelling and pavement-dwelling families are being forcibly removed. An environmental agenda is being used as a cover for land acquisition for posh housing, commercial complexes, roads and railways being driven by the global economy (Roy, 2004).

It was suggested earlier that the city and the village be considered elements in a regional ecosystem. This perspective helps us to see that many urban and rural problems are interdependent. Three examples of this have been pointed out to me by Suman Pande (pers. comm., 2003). First is the problem of rural-urban migration. The people who migrate are the ecological refugees and those dispossessed of their livelihood resource base, already mentioned, and also millions of rural artisans whose livelihoods have been destroyed by the urban-centric industrial development process. All of these migrants become a problem (environmentally and otherwise) for those who benefit from this model. When urban industry can absorb no more of them, these refugees return to their villages frustrated, embittered and with no vision or skills that would enable them to regenerate rural land and life.

Another, more specific, example is biomass recycling. The natural flow of biomass from soil back to soil is interrupted in our modern economic system, creating the problem of urban waste disposal (organic garbage and sewage) and soil impoverishment in rural areas. What are the causes? One is the notion that flush toilets are 'modern' (Prakash & Richardson, 1999); another is the very concept that certain materials are 'wastes'. And finally there is the notion that plant nutrients removed from the soil by plant growth can be replenished by chemicals.

Pesticides are a problem for farmers and for urban consumers. They are manufactured in urban factories which are an environmental hazard (recall the Bhopal gas leak tragedy), then used by farmers, resulting in rural ecosystem degradation, and end up in urban food and water supplies. What is the underlying problem here: the notion of 'pests'; the idea that all we need to do is specify the tolerance levels of the human organism to pesticides, and the levels of ecological destruction that can be tolerated in pursuing economic 'development'?

Discussion

The stories related in this paper have been selected in an attempt to display the immense complexity of what we conventionally term 'environmental' problems. This complexity simply does not come into focus through the conceptual lens of Western (global) cultural assumptions we habitually employ. Unless that lens is discarded, unless we question all the assumptions that constitute it, we cannot hope to come to grips with our problems. Have our stories also thrown up any hints of the shape such an alternative conceptual lens might take?

Many stories related in this paper make it clear that rural people do not recognise their problems as 'environmental'. The very concept of an environment seems to disappear from view in talking to them. And yet, their responses to their many problems are not devoid of ecological logic. For example, at a recent meeting of women from several villages, the problem of water shortage was being discussed. An old woman told the group: 'If we want water in our village, we must grow it.' This statement seems to imply that water is a product of good ecosystem management. And, in the context of the village women's groups we have been discussing, this

statement also implies that 'growing' water is a community project.

In contemplating this we (in the UEEC) have been led to formulate the concept of 'ecosystem health' briefly referred to in an earlier paper in this journal (Jackson, 2003c). The village ecosystem, including the human community, is viewed as an organic, dynamic entity, self-regulating and capable of evolution in response to outer pressures, but with its own distinctive trajectory deriving from the logic of its history and geography. It can also be overwhelmed, and even killed, by external pressures such as the influences we have termed modernisation, or by internal contradictions (such as the grazing of domestic animals in village forest). The women are attempting to restore their village ecosystem to good health.

Physical indicators of ecosystem health are: depth of water table, volume and constancy of spring and stream flows, extent of soil erosion, degree of species diversity (in soil, in cultivated crops, in village forests and among domestic animals), and human population in relation to ecosystem carrying capacity. Measurable social indicators are human health (in particular, the incidence of infectious and nutritional deficiency diseases, and cancer), leisure, and personal and social maladjustment such as alcoholism and domestic violence. No less important are unmeasurable social indicators: feelings of wellbeing and security, and community spirit.

'Ecosystem health' can be seen as a concept that logically subsumes: (a) sustainability, (b) productivity, and (c) community empowerment. Community empowerment, in turn, subsumes equity. The means community empowerment is a self-conscious community learning process.

Thus, in working towards ecosystem health 'the environment', from being a peripheral concern, becomes an all-encompassing, all-pervading conceptual matrix for human thought and action. It displaces the contemporary concept of 'progress'/'development' framed in terms of unending increase in material wealth through the 'rational,'scientific' management of human affairs.

Many who have been nurtured in the global cultural paradigm would now agree that such a shift in focus is necessary for survival, and yet cling to the notion of 'the environment' as a distinct conceptual entity. Why? Is it because the implications of abandoning it are too daunting? The prospect of dismantling the worldview of contemporary global culture, and of fashioning a new worldview seems overwhelming – intellectually, and because it would compromise the privileged position in society of those of us who benefit from the *status quo*. Most of us, therefore, pretend that we can solve our problems by 'greening' our present institutions and policies around the edges without challenging them fundamentally. The concept of 'the environment' enables us to do this.

Pondering this phenomenon, we are led to a yet deeper insight. Participants in the worldview of global culture do not see themselves as parts of nature, but as 'detached observers' who can manipulate it at will in pursuit of their personal aims. This is also part of what it means 'to participate in Western or global culture'. People who still participate largely in non-Western, traditional cultures, as some of our stories suggest, appear to presuppose a single, universal cosmic order of which every entity, including every human being, is an integral part, and a representation. Every entity is both part and at the same time the whole. Thus the health and wellbeing of a particular entity depends upon the health and welfare of every other, and of the

whole. I am the 'environment' – which is the whole. Many contemporary writers, from diverse standpoints, are struggling to articulate this idea in a modern idiom (see review by Selby, 2002; also Goldsmith, 1999; Jackson, 2003a; Rowe, 1997).

It begins to appear, therefore, that the 'environment' is merely a necessary, compensatory conceptual construct for people who have willfully alienated themselves from the rest of the universe. There are no 'environmental' problems, or any other sort of problems, 'out there'; there is only the problem of the way we see ourselves and the rest of universe. We therefore need a new way of seeing, a vision in which our problems are various local violations of the cosmic order that occurs due to the assertion by individual human beings of their independence of the whole. Our efforts would then be to understand the requirements of the whole (the concept of a healthy ecosystem is a way of trying to do this) and to find contentment in abiding by them.

This paper began as a quest for a more effective, realistic Indian enviromentalism, but in pursuing it the very object of our quest has metamorphosed into something much wider and deeper: the need for entirely new ways of thinking about our human situation – globally. The quest is daunting, but not hopeless; many individuals and groups of people the world over are engaging in it. The way forward for school and community educators is to learn from/with children and community members in their own local contexts, which means seeking to understand the workings of the cosmic order as it manifests itself in our local ecosystem and community affairs. Gradually a collective vision of a truly just and sustainable future will come into view.

Notes on the Contributor

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Environmental Education in Action in Secondary Teacher Training in Zimbabwe

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Abstract

This paper describes a story-in-action of the Secondary Teacher Training Environmental Education Programme (St^{2}eep) in Zimbabwe. The programme seeks to integrate environmental education into the secondary teacher training curriculum. This paper critically reviews the meaning of stakeholder involvement and participatory action research which are believed by the authors to guide the programme. This is done through narrating some important processes within St^{2}eep. These include the project formulation, college-based sensitisation workshops, establishment of environmental education parameters, development of environmental education resource materials and an orientation programme for college lecturers. The paper shows that the involvement of stakeholders and participatory action research has enhanced critical reflection within St^{2}eep. The authors also argue that participation diffuses in a multitude of ways throughout our journey of engagement with our work, lifestyle and environment.

Introduction

Zimbabwe developed its environmental education policy through a multi-stakeholder consultative approach in 2000 and 2001. Background research during this process by representatives of the formal education sector revealed that this sector was very subject-discipline oriented. In secondary and tertiary education, most environmental education is undertaken in the context of carrier subjects such as the natural sciences where there is a focus on the biophysical aspect of the environment (Shava, 2003).

Teacher educators were very supportive of the policy development process because they believed it could strengthen environmental education initiatives that were already in process (Heberden *et al.*, 2001). They were, however, concerned that the policy document would remain a paper policy. As highlighted in the Gaborone Declaration (EEASA, 2002: 11–12): 'Paper Policies alone may be of little value. Without action plans that are actually put into effect, paper policies can be meaningless.'

Recognising that adoption and implementation of the formulated environmental education policy is a lengthy process, it was agreed that action had to start on the ground to establish environmental education initiatives, even before the policy was officially launched by the Ministry of Environment and Tourism. This marked the beginning of St^{2}eep. St^{2}eep was

formulated through strong involvement and consultation of stakeholders under the guidance of the then proposed environmental education policy. St^{2}eep focusses on the integration of environmental education into the secondary teacher training curriculum. Programme activities started immediately after the programme planning phase. St^{2}eep activities are characterised by involvement of stakeholders and participatory action research cycles. This paper documents activities and processes spanning the first two years of the programme. It also seeks to open up a critical discussion on the meaning and role of stakeholder involvement and participatory action research within the St^{2}eep programme.

Participatory Planning of the St^{2}eep Programme

The draft of the national environmental education policy document was worked out in 2001. Soon after, a planning workshop on the integration of environmental education into the Secondary Teacher Training Curriculum was organised (MoHTE & VVOB workshop report, 2001). Participants included representatives from the Ministry of Higher Education, the Ministry of Education, Sport and Culture, the Ministry of Environment and Tourism, teacher training colleges, schools, NGOs, universities, a Belgian donor organisation (VVOB) and other stakeholders, notably some International Union for the Conservation of Nature (IUCN) Commission of Education and Communication representatives. This marked the beginning of a process aimed at practical implementation of national environmental education policy recommendations for secondary teacher training in Zimbabwe.

The planning workshop benefited from multi-stakeholder participation during the preparation and implementation of the workshop. This approach enabled broad consultation in the development of the programme, based on existing environmental education processes, needs, opportunities and experiences. Focus group discussions and brainstorming sessions were the main instruments used during the workshop. Focus groups identified strategies, objectives, expected outcomes and specified activities to realise objectives. Indicators, means of verification, timeframe, responsible organisations and the budget were also suggested. Table 1 shows a summary of the results of the focus group discussions.

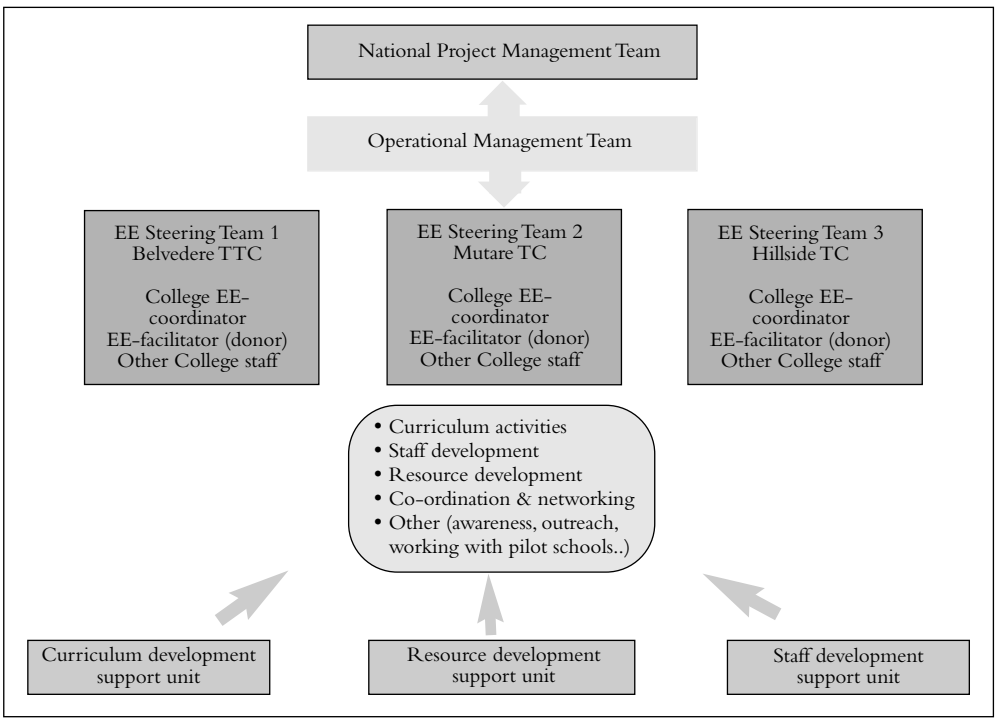
During plenary brainstorming, participants agreed that environmental education should be included in all main subjects to fulfil the cross-curricular approach. Figure 1 shows the organogram of the St^{2}eep project structure as it was developed during the brainstorming activity. It was later approved by the Ministry of Higher and Tertiary Education with minor adjustments. To date, the supporting structures have been successfully established in the three participating colleges and at national level.

Table 1. Summary of focus group discussions on project strategies

Strategies	Objectives	Outcomes and Activities
1. Curriculum development	• To develop a curriculum which incorporates and integrates environmental education at secondary teachers' colleges.	• Workshops to develop parameters of environmental education for secondary teacher colleges. • Environmental education curriculum audit carried out for secondary teacher colleges. • Syllabi revised at secondary teacher colleges to incorporate and integrate environmental education. • Revised syllabi produced for use at secondary teacher colleges. • Integration of environmental education reflected in student teacher schemes, plans and teaching during teaching practice. • Consultations with Ministry of Education.
2. Staff development	• To equip educators and students with appropriate knowledge and skills for effective environmental education and positively change their attitudes towards environmental issues.	• Environmental education orientation workshops for lecturers. • Follow-up activities to monitor implementation of workshop results (observations, visits, etc.) • Support student environmental education initiatives, e.g. field trips, Environment Club activities, etc.
3. Resource development	• To evaluate the suitability of existing material in view of the environmental education curriculum and to develop new material to supplement existing material.	• Workshops to valuate and identify existing material suitable for the environmental education curriculum. • Writers workshops to produce new environmental education materials and to build capacity in resource development.
4. Cooordi-nation among environ-mental education stakeholders	• To coordinate, network and promote critical awareness between and among all stakeholders at local, national, regional and global levels.	• Functioning networking, coordination and collaboration among stake holders. • Establishment of inventory of stakeholders • Establishment of resource centres and training of lecturers and students on use internet and email services. • Exchange visits and community environmental education projects.

Strategies	Objectives	Outcomes and Activities
5. Evaluation/ assessment	• Evaluation of skills, knowledge and attitudes in view of environmental education within teacher education programmes and to link with primary and secondary education.	• Evaluation of environmental education within teacher education programmes is on skills, knowledge and attitudes. • Assessment criteria for environmental education are set through consultation and collaboration between higher education, Zimsec (exam branch), teacher colleges, and other stakeholders.

Figure 1. Organogram of the St^{2}eep programme structure



On the issue of sustainability it was suggested that the project would be conducted over a four-year period, starting in January 2003 to 2006. During this period, donor funding would facilitate capacity building in environmental education through training workshops, the provision of information technology equipment and the integration of environmental education in the secondary teacher training curriculum. Participants agreed that colleges could sustain the programme, provided they had the initial supporting equipment, programme structures and enhanced capacity. Being part of the programme planning task team we assumed that the participatory approach used during the workshop enabled stakeholders to design their

own programme that would facilitate the integration of environmental education in secondary teacher training. As a result, we believed that the programme responds to priorities and needs of its implementers and therefore enhances ownership of the programme. However, O'Donoghue (1999: 21) warns us of 'participatory imperatives as techniques applied in sequential facilitative faith within a sustainable development economy that is seemingly stacked in the favour of a new cohort of development professionals'. With this in mind, there is need for some critical reflection on the structure of the St^{2}eep programme.

There is one national project coordinator who is a college lecturer with a full teaching load. All the work that is done for St^{2}eep is therefore additional to a full workload without any extra financial remuneration. The same applies for the three steering team coordinators, based in the three teacher training colleges. Three Belgian facilitators, employed by the donor organisation VVOB, are working full-time in the St^{2}eep programme. Currently, the national coordinator and environmental education steering team coordinators would struggle to cope without the support from the VVOB facilitators. The extensive operational role that VVOB staff is currently playing in the St^{2}eep programme is not sustainable in the long run and raises questions about the meaning of participation at this operational level. Critical reflection on the operational structure has led to a process of extensive debate within St^{2}eep on the issue of sustainability and the role of the donor.

Stakeholder participation in implementation of St^{2}eep activities

The consultative workshop approach in many St^{2}eep activities takes cognisance of the fact that several authors underscore the need to take on board the implementers of curriculum change from conceptualisation to implementation (Stenhouse, 1981; Carl, 1997; Bishop, 1986). The pre-requisite for a democratic framework in environmental education curriculum processes has been sounded in many environmental education international conferences (for example, UNCED, 1992; EEASA Gaborone Declaration, 2002). Information on existing and potential environmental education activities is meant to provide context-rich environmental education knowledge and practices essential in guiding environmental education integration (Mokuku, 2001; Lotz-Sisitka, 2002). Put differently the understandings, competencies and values articulated in the different subject areas can be effectively harnessed to resolve environmental risks (UNESCO/DEAT, 2000). The recommendations from curriculum theory and an environmental education imperative to enable contextualised praxis and participatory action research in informing practice thus justified the consultative workshop strategy.

Sensitisation workshops

A sensitisation and consultative workshop was organised in February 2003 to introduce the St^{2}eep project to Belvedere Technical Teachers' College (BTTC) staff members, determine what was already happening within the college in terms of environmental education and identify potential subject areas for environmental education integration. A focus group discussion strategy was used to gather information on current implementation of environmental education in the subject areas and opportunities for integration into the different subjects. From the focus group discussions it was observed that technical subjects see environmental health and safety as

relevant environmental education issues, while the same subjects, together with Business Studies, Geography and Natural Sciences, indicated that they already cover, in one way or another, issues related to waste management, conservation and recycling.

The use of the environment as a teaching/learning resource was highlighted in Agriculture, Clothing and Textiles, English, Geography and Environmental Science, Professional Studies and Science and Mathematics. Agriculture made explicit reference to the importance of indigenous knowledge systems and health education. Agriculture, Natural Sciences, Geography and Environmental Science and Hotel and Catering educators indicated that there was potential for including numerous environmental issues in their subject areas. A biophysical understanding of environmental issues was evident in most subject areas while suggested opportunities for integration stressed the need to deepen and extend the environmental issues that are already covered. Through participant group interaction, the workshop provided some insights into what is being done in different subject areas and their potential in view of environmental education integration.

Similar sensitisation workshops were held in the other two colleges during the course of 2003. Subsequently the workshop findings helped to inform the setting of parameters for environmental education integration which were developed through several other consultative workshops in 2003. These environmental education parameters are guidelines on the learning-teaching content and processes and the requisite resource and staff development. The sensitisation and parameter development workshops have helped to make the subsequent integration process contextual to the teaching and learning processes in the college settings. The workshops also created a milieu for meaning-making and generated interest in mainstreaming environment into the teacher education curriculum. This process of making 'curriculum... a contextualised social process' (Cornbleth, 1991, cited in Lotz-Sisitka, 2002) has been a strong basis for intensifying other phases of St^{2}eep implementation. However, despite the interest and active involvement of educators in the setting of parameters for environmental education integration as an integral part of action research, questions on how the project objectives were to be sustained after 2006 started surfacing. How was the initial excitement and motivation to be sustained when the supporting donor funding stops at the end of 2006?

Development of Resource Materials

In line with environmental education policy guidelines and stakeholders' realisation that there is a need for useful, relevant and contextualised resource materials to support the environmental education integration process, a training of trainer's workshop on resource development was organised in September 2003. The workshop facilitators guided workshop participants through different types of resource materials, using a training manual that they had written specifically for the workshop: 'Effective resource materials for environmental education' (Pacey & Brazier, 2003). The workshop was successful and the original idea was to task the workshop facilitators to develop their training manual into a somewhat larger book on resource material development and to sell the copyright to St^{2}eep. St^{2}eep members supported the idea of developing a book on resource materials but decided that this should be done by St^{2}eep itself. A resource development task team was set up, comprising lecturers and representatives from the

Ministry of Education and the National Botanic Gardens. A second consultative resource development workshop was organised in November 2003 in Harare to come up with a format for the book. Soon after this meeting a team of five lecturers went on a resource development attachment programme in Umgeni Valley, South Africa, in December 2003 where they produced a first draft of the resource manual. This draft was then reviewed during a consultative workshop in January 2004 to see if it was still in line with the original objectives and format and to map the way forward for further development of the manual.

The ongoing development of the resource manual is characterised by cycles of planning, action, reflection upon action and further planning for action. This process, though long and slow, has enhanced the capacity of the stakeholders who have been involved in view of developing and adapting relevant environmental education resource materials. The process is being undertaken mainly by 'to be implementers' of the manual. This endows a strong sense of ownership and commitment towards the process. This process also illustrates how initial plans can be adjusted during reflective cycles of participatory action research.

However, it emerged that some participants were involved not to achieve project goals but to seek personal gain from the exposure and staff development opportunities. Project planners also realised that, while teacher educators were being professionally developed within St^{2}eep, the acquired skills enhanced their promotional chances in universities. Some lecturers involved in St^{2}eep have left teacher education institutions for 'greener pastures'. However, while the loss of trained personnel was felt as a set-back, the promotions also indicated that St^{2}eep is contributing towards national development.

Development of an Environmental Education Orientation Programme for Lecturers

St^{2}eep has developed an environmental education orientation programme for educators. This is intended to facilitate the environmental education syllabi review process in different colleges. Since the infusion of environmental education is based on a cross-curricular approach, the orientation programme will be offered to all lecturers from all subjects taught in Secondary Teacher Training Colleges. The development process of the orientation programme was initiated through a training needs analysis workshop in October 2003. Thereafter, a national Training Task Team (TTT) was identified, consisting of two to three lecturers from each of the three secondary teacher training colleges and two permanent external advisors (one from Ministry of Education, Sport and Culture and one from the National Herbarium). Work done by the training task team has been reflected upon by a bigger group in monthly meetings where guidelines for further development of the orientation programme are established. Such meetings represent instances of reflective, continuous and critical self-evaluation which are essential in environmental education and in the curriculum development process. This has enabled the task team to outline the objectives and underpinning approaches and features of the orientation programme. Based on these outcomes the TTT came up with a course structure. The programme comprises a five-day orientation programme on environmental education, followed by consultative visits and seminars over a period of three to six months. During these visits, peer lecturers discuss and guide the subject lecturers in reviewing their syllabi towards environmental education infusion.

The first orientation programme for lecturers from Professional Studies and Geography from the three colleges was run in June 2004. The development process of the orientation programme has drawn strongly on the environmental education parameters that were developed earlier in the programme. The process is characterised by participatory action research cycles. During these, stakeholders come together to plan the different aspects of the orientation programme, go back to their stations to work on their respective tasks, come back together to reflect on the work done and plan for further work. This is a very lengthy and expensive process. However, it has resulted in a locally-owned and contextual environmental education orientation programme developed by a wide range of local stakeholders who were able to enhance their capacity in terms of environmental education during the development process. The process is therefore more important than the end result which is not predetermined.

The different departments in the different colleges are fully in charge of how they want to integrate environmental education in their syllabi. In this process, St^{2}eep still plays a facilitatory role by bringing the lecturers together during the training workshops and follow-up consultative visits. However, we can see the early signs of an enabling framework in which the lecturers can engage with environmental education and their syllabi. Some could argue that this implies some risk for St^{2}eep as the lecturers might resist the idea of environmental education and conclude that there is no room for environmental education in their syllabi. However, this could be an opportunity to learn a bit more about the meaning of participation within St^{2}eep. Usher and Edwards (1996) refer to education in the postmodern as based on cultural contexts, localised and particular knowledge, on desires and on the valuing of the experience of learning as an integral part of defining a lifestyle. They argue that such education would enable greater participation in a diversity of ways by culturally diverse learners.

We do not want to highlight a specific theoretical framework that guides St^{2}eep activities, but we believe that we are moving away from participation as an obsessive imperative that may contribute to consultative inactivity (Human, 1998, cited in O'Donoghue, 1999). Instead we are moving towards a multitude of ways of participation which diffuse throughout the search for ways of engaging with *our* work, lifestyle and environment. This approach has helped to bring to light some tensions to the seemingly smooth surface. During the consultative visits lecturers expressed their doubts whether the trainee teachers would be able to implement the integrated environmental education issues and processes in the secondary school curriculum if the school syllabi were not reviewed at the same time. Others felt they would not be able to effectively implement change in their lecturing as it was going to take time to change their traditional ways of lecturer-dominated information delivery. Weiler (2003) refers to Van der Wethuizen who points out that in many instances teachers have not been encouraged to question and attempt to influence change in the classroom. Mokuku (in Weiler, 2003) also found that teachers were reluctant to move out of their preconditioned traditional role of a teacher to use a more dynamic, constructive approach.

The numerous workshops were also said to disrupt the normal flow of college duties and activities. This critique on the action research approach is shared by Stuart *et al.* (in Weiler, 2003) who indicates that 'one should not lose sight of the fact that action research has its own

demands which may conflict with the day-to-day operations of the college'. Lecturers also expressed their concern about the strong orientation towards examinations within teaching and learning. They felt that this limits the time available for follow-up on issues identified in the various research cycles. All these issues present a possible risk of resistance from college lecturers to implement the environmental education integrated syllabi.

Lessons Learned

Participatory action research permeates all stages of the development and implementation of the St^{2}eep programme. Every stage is characterised by self-reflective cycles, consisting of critical reflection on practice followed by planning and observation of action resulting in specific outcomes that are again reflected upon and lead to further action. The inherent participatory action research approach has helped stakeholders of the secondary teacher training sector in Zimbabwe to investigate their actions in order to change them and at the same time helped them to change their actions in order to investigate them (Kemmis & Wilkinson, 1998). The spiral of self-contained cycles of planning, acting and observing, and reflecting, often represented as key features of action research in literature (Kemmis & Wilkinson, 1998; Lupele, 2003), may not always be very clearly outlined (Kemmis & McTaggart, 2000). This has been the case in the whole St^{2}eep programme where there was no clear research methodology from the start.

The way things are done reflects the belief that everyone is a learner in environmental education processes and that the researchers should not always be external experts but can be the implementers and stakeholders within the programme. This 'intuitive' way of doing things implies that there is no rigid blueprint of what the programme should achieve in any given period of time. On the contrary, the process is much more fluid, open and responsive – whereby initial plans become adapted in the light of learning from experience (Kemmis & McTaggart, 2000). This also means that there is no pre-set format that the integration of environmental education into the secondary teacher training curriculum will eventually take. The methodology used within St^{2}eep puts more value on the social processes that are taking place along the way and the human aspect of all stakeholders involved in the programme. Being a donor-funded programme, St^{2}eep thus reflects a 'new' paradigm for capacity enhancement which is less result-oriented and stresses the importance of ownership. This shifts its focus from the transference of knowledge to the acquisition of knowledge and acknowledges the value of existing local capacities (Mizrahi, 2004).

We are however aware that the participatory action research approach is not the perfect or only possible way of doing things. This approach by itself also falls short in researching, supporting or describing the variety and complexity of social processes that are ongoing within St^{2}eep. An immediate problem associated with this approach is that it might interfere with normal college work through the numerous workshops and meetings. It is also an expensive approach which will need the necessary long-term support in view of financial and human resources. There is therefore a need to continue the critical dialogue on the role and the intension of the main donor organisation and other supporting stakeholders. We also have to take care that we keep on reflecting critically on the meaning of participation and action

research. A full clarification of these concepts does not fall within the scope of this paper which merely aims to initiate the articulation of those guiding principles.

Conclusion

The environmental education policy development process in Zimbabwe paved the way for planning the St^{2}eep programme. The formulation of St^{2}eep was characterised by wide stakeholder consultation and resulted in action plans for integrating environmental education across the curriculum of secondary teacher education. Through this paper, we have started to describe various processes within the St^{2}eep programme and have identified a participatory action research approach that seems to guide the programme activities. This approach was not predetermined but evolved as an intuitive way of doing things which seems to be favoured by the various stakeholders. We believe that it has contributed to the strengthening of stakeholders' sense of ownership and commitment towards the St^{2}eep programme and environmental education in secondary teacher training in Zimbabwe. Despite the successes, several challenges, such as the sustainability issue, curriculum innovation diffusion to the secondary school sector and possible resistance from the lecturers to implement the environmental education integrated syllabi, remain critical and need to be addressed.

This paper reminds us that we cannot assume that things are going smoothly within St^{2}eep. We have to be accountable for what, how and why we are doing things. Reflecting critically on the ongoing processes through participatory action research has helped us in this regard. However, the story has just started and we are developing our research skills as we move on. The meaning of participation and participatory action research needs to be explored further as the narration of the St^{2}eep story progresses. The exciting thing is that everyone is learning within the process.

Notes on the Contributors

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Supporting Tutoring Within a Namibian Environmental Education Course: Challenges and opportunities

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Abstract

This paper is based on a case study of tutoring in the Namibian Environmental Education Certificate (NEEC) Course. In order to support tutoring, the National NEEC Coordinator investigated the way NEEC tutors are supported and the kinds of challenges faced in the tutoring process. The case study was framed within a naturalistic paradigm and the grounded theory approach was used to analyse data. Hence theory is built on data generated throughout the research process. Data were collected from 11 NEEC tutors/support tutors using interviews and questionnaires. Document analysis provided further data and a means of triangulation. Significant challenges to the tutoring process emerged from the data analysis. The most significant challenge was the tutors' lack of experience in, knowledge of, and enthusiasm for environmental education and distance teaching. Moreover, restrictions on time and communication (i.e. access to work sponsored telephones) caused by the working environment and a lack of adequate financial incentive emerged. Recommendations regarding the improvement of the infrastructure and management, particularly in the areas of recruitment, induction and ongoing professional development support, are made as a way of overcoming the challenges.

Introduction

The NEEC is developed, implemented and coordinated by the Desert Research Foundation of Namibia as part of the Supporting Environmental Education in Namibia (SEEN) project. The course attempts to support the professional development of environmental educators. The overall aim of NEEC is to develop a community of critical, reflexive and active practitioners who work towards solving environmental problems (NEEC, 2003). The NEEC is based on the South African Rhodes University/Gold Fields Participatory Course in environmental education (hereafter abbreviated as RUGF), which has similar intentions. Because of the particular context of Namibian needs, experiences and support of the course, the National NEEC Coordinator (hereafter referred to as the coordinator) is adapting ('Namibianising') the RUGF course. During the 2003 NEEC course, the coordinator conducted research into tutor support as part of the requirements of the University of South Africa for the MEd degree with specialisation in environmental education. The coordinator specifically conducted research in the area of support of tutoring as, in terms of the NEEC, it has been identified as crucial to the

sustainability of the course in Namibia. Moreover, the research is pertinent as Namibia has limited numbers of available and appropriately experienced and qualified environmental education practitioners (Van Harmelen *et al.*, 2003). This paper focusses on the process of investigating the support of tutoring in a semi-distance and part-time context with a view to strengthening the course and contributing to its sustainability.

Development and Implementation of the NEEC

The broader SEEN project was developed to help implement 'good education' as advocated by Namibian education policy and, in particular, Namibian environmental education policy. Consequently one of the main foci of this project was the professional development of environmental education practitioners. The SEEN project undertook the development of the NEEC to help Namibian environmental educators understand their practice better in relation to their own and others' theories and particularly in relation to the current national education and environmental education policies.

The NEEC is a part-time, semi-distance professional development course that runs over a year. It is accredited through a partnership between the Polytechnic of Namibia and Rhodes University (South Africa). The NEEC follows a RUGF guideline that allocates 24 credits and hence recommends 240 notional study hours for the course. Face-to-face workshop sessions comprise 144 of these hours. Unlike the RUGF, the NEEC accepts people without any environmental education experience as long as they have potential links with and wish to know more about environmental education.

The NEEC orientation, much like Namibian education policy, is based on social constructivist principles and follows a learner-centred approach that encourages learners to participate in the learning process. The course is also framed on learning as a process, which regards learning as historically and socially situated. It sees assessment as learning (rather than as a way of allocating grades or marks) and encourages critical reflection and reflexivity.

Due to the limited number of people specialised in environmental education, a number of SEEN project Technical Advisers helped to tutor the NEEC (among other SEEN activities). However, the assumption was that the course will be run independently from these technical advisors by the end of 2004.

To make the best use of project funds while at the same time trying to reach people who could make a powerful impact in educational sectors, the NEEC initially enrolled formal education sector Advisory Teachers, some Teacher Educators and NGO personnel from non-formal education sectors as participants.

Delivery of the NEEC

The NEEC 2003 course contact sessions consisted of three national workshops (approximately three days each) and a minimum of three regionally based tutorials (approximately two days for each tutorial) spread over the course year. All participants attended the national workshops together. Participants could choose to attend the regional tutorial closest or most convenient to them. The format and fundamental nature of these contact sessions gave the participants

opportunity to make comments, pose questions and suggest ideas for further deliberation. Thus, opportunity for participants' ongoing professional development was accommodated.

Support of learners: tutor recruitment and definition of roles and responsibilities

The NEEC participants were supported by four regional course tutors and five support tutors (see Figure 1 for an overview of the NEEC infrastructure). Course tutors consisted mainly of Advisory Teachers and Teacher Educators employed by the Ministry of Basic Education, Sport and Culture (MBESC) and the Ministry of Higher Education, Vocational Training and Employment Creation. There was also one course tutor from a non-governmental environmental education organisation.

The Technical Advisors selected the course tutors from the previous year's (2002) course participants. There were no formal requirements for being a course tutor other than, in the technical advisor's view, the potential course tutor's willingness to and capability of tutoring. Thus, in the NEEC, besides having previously completed the course, two course tutors had adult education experience. Two other course tutors had general teaching experience, and another had environmental education experience. One course tutor had not done the NEEC but had postgraduate environmental education qualifications and general teaching experience. No tutor had distance education teaching experience.

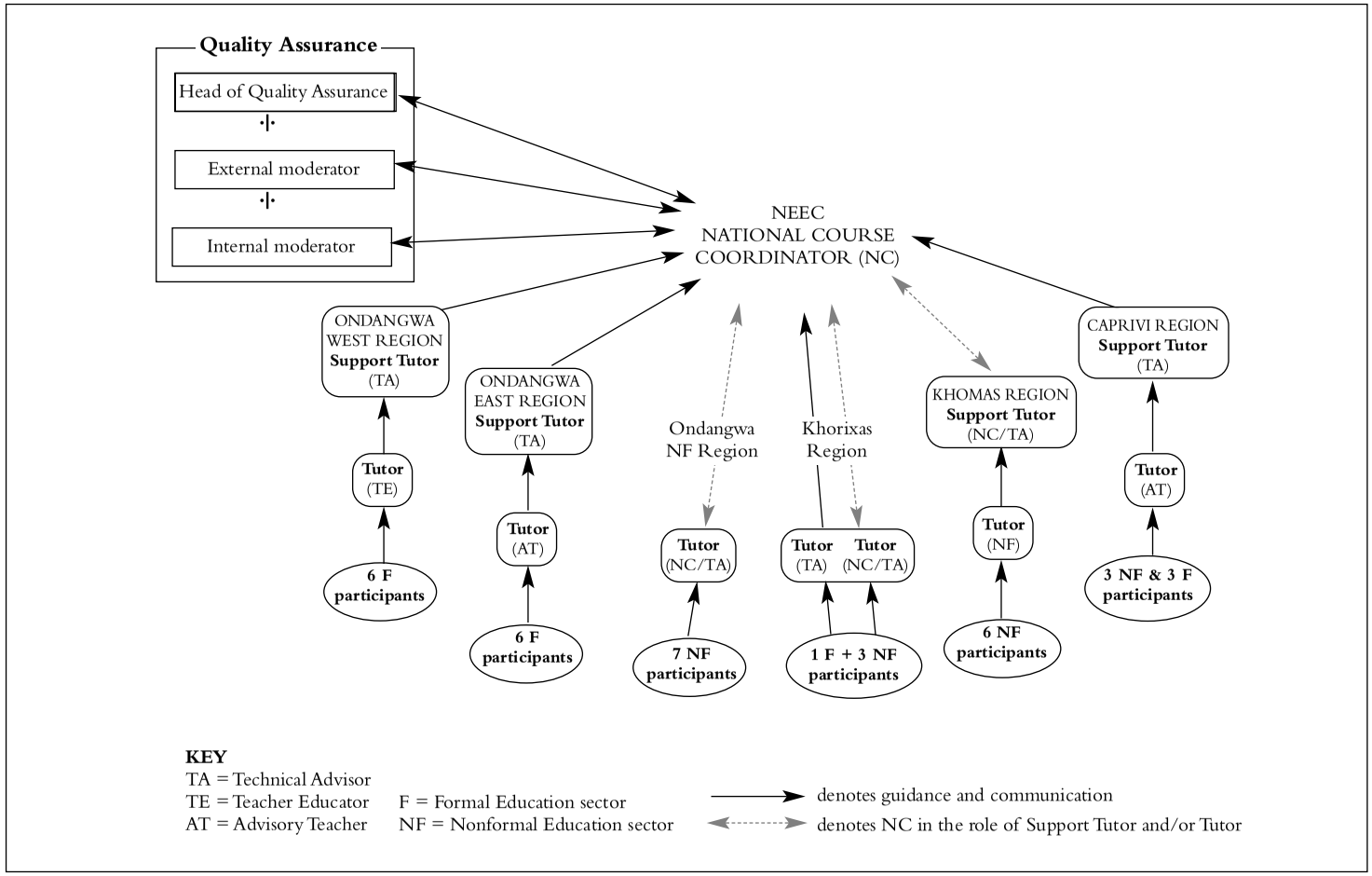
Course tutor roles and responsibilities were developed with the support tutors at a tutor development workshop held at the beginning of the course year. These roles and responsibilities (SEEN, 2003a) include being able to:

- Prepare, organise and facilitate regional tutorials.
- Provide guidance, general support and mentor participants.
- Assess assignments and portfolios.
- Provide links between stakeholders.
- Act as conflict managers.

The tutoring role was initially intended to be a 'voluntary' position. However, Teacher Educators and the non-formal education sector course tutors were paid a small honorarium (in addition to the course costs incurred by the course tutor). In contrast, to encourage institutionalisation within the MBESC, it was planned that the Advisory Teachers would tutor as part of their usual job descriptions. All course tutors were aware of the voluntary status of the tutoring position. As in the RUGF course, the incentive given to tutors was the opportunity to further their professional development. However, because course tutors' roles and responsibilities were generally not being adequately fulfilled and because course tutors stated that they wanted more appropriate 'payment', it was decided during the course to pay *all* course tutors a small fee for tutoring. This fee was higher than the honorarium given to the Teacher Educator course tutors and non-formal education course tutors.

Technical advisors also acted as 'support tutors' to the course tutors (see Figure 1). The support tutors role included the assigning and supporting of course tutoring roles and responsibilities. As such, ideally they were to provide (SEEN, 2003a):

Figure 1. The infrastructure of support within the NEEC course (as at the end of the NEEC)



(Source: Frölich, 2004:34)

- Moral support.
- Support in organising regional tutorial logistics.
- Assistance in the planning and coordination of tutorial programmes.
- 'On-the-job training' and a contribution to the professional development of course tutors.
- Moderation of course tutors' comments on assignments and portfolios.
- General administration of regional tutorials, e.g. typing any minutes or documents associated with tutorials.
- Access to facilities such as the telephone and photocopier.
- General financial assistance related to regional tutorials and national workshops.
- Liaison between the course coordinator, course tutors and participants.
- General support to the course tutors when needed.

Support of course tutors: induction and professional development

All course tutors and support tutors were supported by the national course coordinator (see Figure 1), who coordinated all course activities and provided guidance on the requirements and logistics of the course. The coordinator also provided information and resources pertaining to the development of regional tutorials and national workshops. Moreover, before the course commenced, the coordinator organised a two-day professional development workshop (the induction period) for all course tutors and support tutors; at this workshop a number of issues concerning the course were discussed. These included (SEEN, 2003b):

- Activities and assignment requirements related to assessment criteria.
- The what, when and how of assignments and portfolio assessments.
- Moderator and quality assurance reports.
- Requirements of the first regional tutorial.

Owing to the short duration of the workshop, the above areas were only superficially covered (Fröhlich, 2004).

Supporting Tutoring in Semi-Distance and Part-Time Education Courses

Tutoring is an important part of many courses, whether distance education or full-time study. Tutors thus provide assistance to learners and can contribute to their successful completion of a course, particularly in distance education. With tutors playing such an important role, one would expect them to be soundly supported in their roles and responsibilities. Unfortunately this does not always seem to be the case, particularly when focussing on semi-distance and part-time education contexts. In these contexts, there is not only a seeming dearth of information on supporting the tutoring process (Fröhlich, 2004), but also minimal guidance related to tutor support.

Tutors within semi-distance and part-time courses need as much support, if not more, than those who tutor face to face. This is mainly because semi-distance and part-time tutors do not often meet their course managers, supporters and fellow tutors due to large distances between them. This makes it difficult for tutors to gain advice and support when needed. They also often have other work commitments.

Tutoring can be a time-consuming activity. However, tutoring quality cannot be compromised by expecting less of those who are unable to invest the required time. Accreditation demands that a quality course be delivered and supported to uphold the accrediting institution's credibility and to satisfy the needs of the participants. Thus, tutors should be aware of their roles and responsibilities in a course and should focus firstly on how best to support learners. In turn, tutors themselves should be appropriately supported both to ensure that they can support learners adequately and to develop professionally according to the course focus and their tutoring role.

One way to view the provision of support to tutors is through appropriate management strategies. In terms of supporting the *tutoring process*, management involves the areas of recruitment, induction, tutor development, supporting learners and course review (Freeman, 1997:63).

The areas of focus in this paper are recruitment, induction, tutor development and learner support.

The recruitment and induction of tutors

Recruitment is an important first step in supporting the tutoring process. This importance increases twofold if the course is newly developed. Getting appropriate people to tutor the course is important to secure a firm foundation for it in the institution and to ensure its sustainability.

Jenkins (1997: 36) suggests that in distance education courses, tutors with subject knowledge and experience in teaching adult learners (Stage 1 and Stage 2 in Table 1 below) should be recruited.

Table 1. The development model: functions, skills and education needs for distance education tutors

Personnel Functions	**Stage 1** ***Basic Experience***	**Stage 2** ***Educational application***	**Stage 3** ***Distance education application***	**Stage 4** ***Specialised experience***
Tutors	Subject knowledge	Teacher training and adult education	Teaching at a distance	Discipline-related teaching techniques

(Source: Adapted from Jenkins, 1997:36)

Stage 1. Prerequisites: general education to an appropriate level such as first degree at university.
Stage 2. Basic pre-work training: professional training or experience at the beginning of working life.
Stage 3. Basic in-work development: essential development in aspects of distance education related to their role.
Stage 4. Further in-work development: advanced development in specialist aspects of distance education.

Recruiting agents should also be aware of the competencies tutors require to fulfil their tutoring roles and responsibilities effectively. Furthermore, O'Donoghue (pers. comm., 2003) mentions that a potential tutor should be enthusiastic about their role and the course subject, in this case, environmental education.

Consequently the tutor has an important role to play and should be knowledgeable not only in environmental education and teaching adult learners, but also about teaching at a distance and the teaching/learning orientation endorsed by the course (Jenkins, 1997). This is supported by Raven (2003:25), who states that the RUGF tutors' 'background and insight into the course orientation, aims and course process appear to shape the support given to participants' and they therefore 'play a significant role in shaping course processes that support professional development'. This may be either advantageous to the course if the tutor and the course's understandings of the orientation are similar, or may cause problems should they differ. Problems may thus arise with tutoring as 'behind any teaching technique is a tutor's assumption about the purpose and nature of teaching and learning' (Rhys & Lambert, 1983:66).

Due to differences in context, not all courses may be able to recruit tutors with extensive experience in adult education, teaching at a distance or the specifics of the course. Therefore, it is suggested that such tutors undergo development within stages 2, 3 and 4 of Table 1, involving development in teacher training and adult education; teaching at a distance and discipline-related teaching techniques (Jenkins, 1997). These areas may be covered during an induction period. Moreover, during the induction period, time should be allowed for recruited tutors to deliberate on their own views of teaching and learning and how they compare with those endorsed by the course. In addition, tutors could be introduced to or extended within the course specifics which include:

- Course content and materials.
- Tutor roles and responsibilities.
- The learner system, e.g. how the learners get materials, what work they do and when it is needed, assessment systems and procedures, support systems needed.
- The tutor system, e.g. how to contact learners, how to process learners' work, general support of learners.
- Specific procedures of the institution such as breach of course agreements, procedures for using telephones/fax machines (adapted from Freeman, 1997:63).
- Interpersonal skills (Sturrock, 1997:273).

Such specifics of development would, however, depend on the needs of the tutors themselves, the course requirements and the participants. This is discussed in the following sections.

Management of tutor development

Once recruited, it is suggested that the professional development of tutors follow a sequence as outlined in Table 1 (Jenkins, 1997). The professional development of tutors is seen as necessary both to support participants appropriately and to offer tutors the opportunity to develop professionally within the tutoring process itself.

Specifically in terms of the RUGF, tutors are seen as the key supporters of the course with its success often resting on the tutors' shoulders (Janse van Rensburg & Le Roux, 1998; Raven, 2003). This is because tutors 'play an important role in encouraging and supporting the professional development of participants' (Raven, 2003:25). Tutors therefore should be supported accordingly. By doing so, Jenkins (1997:34) sees this support as 'produc[ing] and foster[ing] commitment as tutors' enthusiasm grows as they understand what they do and why'. Again this development may be problematic because semi-distance and part-time tutors may be widely placed and often have work commitments other than tutoring. Hence, it would seem important to explore ways of providing for this development in ways that maximise tutors' desire to participate in their own professional development.

Supporting learners

Adult learners are often expected to take responsibility for their own learning. However, this does not imply that the tutor's role is downplayed or insignificant in this learning process. On the contrary, tutors should play the much more important role of mediating the learning process. Mediation 'implies a more pro-active and responsive role for the tutor, where the tutor deliberately creates learning opportunities and deliberates them with learners... the tutor "mediates" learning in deliberative interactions with the learners' (Lotz-Sisitka, pers. comm., 2003). This is similar to scaffolding learning based on the social construction of meaning (Vygotskian theory). This theory posits that 'human thinking develops through the mediation of others' (Moll, 2001:113). Teaching should therefore involve helping the learner learn 'proximally... involving those abilities that are developing and that can only be manifested with the assistance of others' (Moll, 2001:114). Thus, tutors are responsible for making the course 'work', which means that the tutor has to be 'more rigorous, more clear, put intellectual effort into the course materials' (Janse van Rensburg & Le Roux, 1998:98).

To tutor within this model therefore necessitates high quality tutor development to ensure that tutors not only understand the concept of mediation but also how best to mediate learning. In this way tutors can again model such processes with their learners, encouraging them to learn in the field of environmental education, while also learning *how* to learn.

This theoretical framework creates a basis upon which to design a process to support tutoring. By using the NEEC as a case study, the challenges of supporting tutoring and opportunities for improvement were further explored.

Research Design and Methodology

The post-positivist case study methodology was situated within an interpretive orientation. It used grounded theory as a framework for interpreting the emergent data. In this way the research data and the conclusions were not pre-empted and challenges to tutoring were allowed to emerge naturally without any interference or coercion from the researcher.

The original six course tutors and their support tutors (five in total) were involved in the research. Interviews (two focus group and one individual) and three questionnaires were used to collect data. All questions, both in interviews and questionnaires, were open-ended. All course

tutors were part of a focus group interview conducted at the beginning of a course. The course tutor focus group interview schedule posed questions mainly related to how they were supported and the challenges experienced. It also asked what further support for tutoring was needed, how well the course could run without support tutors and what alternative models could be suggested for tutoring. Two questionnaires, one at the beginning and one at the end of the course, were completed by all course tutors. The first course tutor questionnaire asked course tutors how they prepared for the regional tutorials and national workshops, what roles and methodologies they used, how participants participated and what challenges and positive experiences were encountered in these contact sessions. It also asked what further support could be offered to tutoring.

The second course tutor questionnaire asked for the positive experiences and challenges experienced with tutoring. It also asked tutors if they would be willing to tutor again, reasons for their answers and their advice for promoting successful tutoring in future courses. Support teachers were interviewed once (either in a focus group or a personal interview) at the beginning of the course, with the exception of one who was not available at the time. The support tutor interview schedule was similar to the course tutors', with the exception that it asked how they supported course tutors. Support tutors also all completed an end-of-course questionnaire. The support tutors' questionnaire was similar to the course tutors'. However, it asked them to describe who would be excellent tutors for future courses and why.

All course tutors completed the initial questionnaire. However, two course tutors did not participate in the research after the first questionnaire as, by that time, they had dropped out of tutoring due to other commitments.

Observation of regional tutorials also formed part of the research data. Observation periods were conducted two or three times. These observations focused on tutoring processes. A number of documents associated with the course and the SEEN project were studied and relevant data incorporated into the research. Such data was also used for triangulation purposes.

Data analysis was guided by Tilbury and Walford's (1996:55) and Terre Blanche and Durrheim's (1999:139) grounded theorising. The aim of the analysis was to find common, recurring categories (core categories or variables) in the data to enable the researcher to focus closely on those categories. Tilbury and Walford (1996:57) describe a core category as one that reoccurs frequently in the data, links data together and explains much of the variation. In doing so the data (observation and interviews) were recorded on data sheets and coded broadly. Challenges mentioned by course tutors and support tutors were coded and similar responses placed into subthemes. Subthemes were then collated into categories and themes were developed that described the subthemes. Each subtheme was investigated as part of the theme, and from this an analysis was made of the theme.

Research Findings and Discussion

After careful analysis, several subthemes emerged from the data. The subthemes of special interest for this paper[1] include:

- The course tutors lack of time to focus on their tutoring roles and responsibilities.

- Adequate financial incentive commensurate with the time invested which caused unhappiness.
- Access to work and SEEN project sponsored telephones.
- Experience and/or knowledge with environmental education, distance education teaching/learning strategies and/or with the NEEC in general.

These subthemes in turn mainly relate to the need for better management and infrastructure within the NEEC. Thus, the theme of appropriate management of tutor support systems was developed. This theme is discussed in more detail by unpacking the subthemes from which it arises.

Lack of time to focus on tutoring roles and responsibilities

Most course tutors (three of the four) mentioned the limitations time placed on fulfilling their tutoring roles and responsibilities. The lack of time for tutoring is attributed to their full workloads and other work responsibilities, with certain work activities receiving higher prioritisation than the NEEC. Moreover, regular work responsibilities which take the course tutors away from their offices resulted in less time available to work on the NEEC tasks. In addition, a lack of understanding or support from several of the MBESC's Regional Directors or immediate supervisors contributed to tutoring difficulties.

However, a lack of time may not have been the sole root cause for not satisfactorily fulfilling roles and responsibilities. This is discussed in more detail below.

Inadequate financial incentive commensurate with the time invested

Although the course tutors initially agreed to tutor voluntarily, responses from the majority (three of the four) of course tutors showed that they were unhappy to do so. For example, comments emerging from the data often cited requests for payment for tutoring services. Even when a small payment was introduced, these course tutors found it difficult to find time to tutor and this reflected in their inability to fulfil all roles and responsibilities. It is surmised that the large amount of time and energy needed to carry out the tutoring roles and responsibilities (i.e. 18 face to face days plus a minimum of six days for course assessment) were possibly too much to expect from voluntary course tutors. These challenges were seemingly not an issue in the RUGF course in South Africa where there is usually no problem in finding appropriate people to tutor voluntarily (Fröhlich, 2004). In the latter there may be competition for the tutoring roles and thus the successful tutors presumably find the further professional development and the opportunity for networking within environmental education circles sufficient reward.

This reluctance may be partly attributed to the course tutors' enthusiasm for environmental education. O'Donoghue (pers. comm., 2003) comments that enthusiasm for environmental education is often shown by RUGF tutors who are working for environmental organisations. In the NEEC, only one course tutor had environmental education experience (in the context of her day-to-day working environment) and, in this case, this proved to confirm O'Donoghue's view. Other course tutors were not deeply involved with environmental education and these were the ones who wanted more payment for tutoring. Thus, the lesson learned is: when recruiting course tutors, it may seem appropriate to identify tutors who have some experience

in environmental education and/or that they are enthusiastic about tutoring and wish to learn more about environmental education, particularly in a professional development capacity.

Lack of access to work and SEEN project sponsored telephones

Three formal education course tutors often found difficulty in accessing work or project sponsored telephones. As a result, the course tutors found it difficult to contact participants. Moreover, all course participants commented that participants found it hard to contact them. This problem may have arisen because course tutors were often away from their workplace and hence could not access a phone or be contacted telephonically with ease. No formal arrangements for use of phones outside the workplace in the form of NEEC sponsored calls were arranged for the formal education course tutors. This may have led to the course tutors' reluctance to use their personal phones because of costs incurred. It is therefore necessary to establish and communicate to all course tutors formal agreements regarding the use of telephones and other similar infrastructural arrangements.

Participants should also be able to contact their course tutor readily. Course tutors should supply their work, home and cell numbers to participants and encourage participants to contact them when necessary. This will enable participants to find support whenever needed and avert the impression of learning in isolation, which could prompt some participants to drop out of distance education courses.

Lack of experience and/or knowledge with environmental education and distance education teaching/learning strategies

Overall, data suggested that three of the four course tutors were struggling with tutoring the NEEC. It is recognised that the NEEC did not have an adequate induction period and was weak in its provision of ongoing professional development (support 'on-the-job'). The outcome may have contributed to course tutors' inability to fulfil roles and responsibilities. This is especially noticeable in terms of comments made regarding assessment within the NEEC, where most course tutors indicated their need for more professional development. This was backed by observations during regional tutorials and the internal moderator's report. This report outlines the need to develop more consistency between course tutors' assessment and a general need for professional development within assessment procedures (Botma, 2003). In addition, course tutors may have been more capable of mediating learning if they had been given specific developmental workshops focussing on these skills (as outlined in Figure 1, see also Jenkins, 1997). However, time to dedicate to professional development within the tutoring process was often a problem exacerbated by general limitations of time as highlighted by course tutors. The limited enthusiasm to tutor voluntarily and the request for payment may have further compounded this problem.

As the NEEC enrolled participants with no / little environmental education experience, this could have made the course very challenging for the participants. Consequently, although course tutors had completed the course, they may not have had the broad understanding of

environmental education needed to support participants in a tutoring role appropriately. For example (Fröhlich, 2004: 106):

> ... [i]n particular, it transpired that many tutors had difficulty in mediating critical thinking, reflexivity, in producing autonomous learners and in particular grappled with the theory-practice gap. In consequence, tutors should have adequate understanding of the [NEEC] orientation and content, be critical thinkers and able to model reflexivity. Without these basic competencies there may be risk of such competencies not being sufficiently developed by participants.

Additionally, course tutors need to have the understanding and skills necessary to promote participation and in-depth critical engagement with the texts and discussions. They need to challenge their own and others' ideas and practice and promote participatory and process learning. Such skills will help participants develop as independent, critical and reflective practitioners. These skills relate to mediating learning and course tutors should not only recognise their role in the learning process, but should also be able to share these skills with others. Such learning processes should be developed through discussion during an adequate induction period and be related to the orientation of the NEEC. The necessity of these learning processes should be overtly allied to how the NEEC is structured to achieve the intended learning outcomes. By doing so the 'good education' that the course tutors need to model would begin to be clarified (Fröhlich, 2004:108).

As a result there is a real need to ensure that appropriately experienced and qualified people are *employed* and adequately remunerated by the NEEC (Fröhlich, 2004). Inexperienced and under-qualified course tutors struggle to find the time to tutor and have difficulty in mediating learning within a semi-distance professional development course. Experience and qualifications in environmental education, adult education and distance education teaching/learning strategies, are all seen as necessary to fulfil the tutoring role (Jenkins, 1997; Fröhlich, 2004). Consequently, it is recommended that the recruitment process should follow the guidelines mentioned by Jenkins (1997) in Table 1. Once the appropriate people have been found, they can be formally contracted to fulfil roles and responsibilities.

Ideally, payment for tutoring should be market related. However, to conserve payments and to allow the development of a sufficient number of course tutors in Namibia, it is suggested that experienced and suitably qualified course 'convenors' be employed to convene, present and tutor participants. Several 'tutor understudies' (tutors in training) could be employed to support the course convenors with their roles and responsibilities. The course convenors could also mentor these tutors in training with the aim of further supporting tutor professional development. However, the mentoring of the tutor should overtly mediate their learning. In this way it is hoped that the enthusiasm of tutors in training 'grows as [tutors] understand what they do and why' (Jenkins, cited in Fröhlich, 2004:108). Tutors in training could thus aim to become course convenors (hence providing a career path) and in this way ensure course sustainability. Consequently, tutors with fewer qualifications and less experience than the convenor could be employed and less financial incentive given. The attraction of professional

development and networking opportunities as well as a career path could thus be used as an incentive to tutor.

Concluding Comments

The research into supporting tutoring provided insight into how course tutors experienced the tutoring process and the challenges they faced when trying to fulfil tutoring roles and responsibilities. In terms of the course tutor support system, these challenges were seen to be an interrelated web of problems ranging from a lack of proper recruitment, induction and further professional development through to workplace-based issues. It was suggested that if appropriately experienced, qualified and enthused course tutors could be recruited and contracted to fulfil roles and responsibilities, and if they were appropriately paid for their tutoring services, challenges currently experienced may be reduced. Moreover, the NEEC should be restructured so that appropriate course convenors/mentors should be employed to convene, present and tutor participants. The course convenors in turn could provide the support to tutor understudies in the form of a mentorship role. These changes in infrastructure may thus help to provide a more solid framework from which to build the NEEC and its provisioning model.

Notes on the Contributors

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Endnote

1 See Fröhlich (2004) for a full analysis of the six themes relating to challenges to tutoring.

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Viewpoint
Against Environmental Learning: Why we need a language of environmental education

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Abstract

As witnessed at the 2004 EEASA Conference, environmental learning is emerging as a popular term in environmental education discourses in South Africa. There are those who argue that there is no need to speak about environmental education in South Africa anymore since environment is embedded in the new curriculum frameworks for General Education and Training and Further Education and Training. All that is required is the (environmental) learning of what is defined in various education policies. In this viewpoint paper I contextualise 'environmental learning' within the emergence of a language of learning internationally. I raise some concerns about a language of learning and argue for a language of environmental education.

Introduction

My attendance at the Conference this year made it possible for me to identify some of the new developments/thoughts among the organisation's members. Of particular value were the sessions in which reporting was done on part of a South African project – the National Environmental Education Project (NEEP). NEEP's varied activities focus on supporting environmental education in the General Education and Training (GET) band of the South African education system. Funded by the Danish government, the project is housed in the national and provincial education departments and conceived as a partnership between civil society (EEASA) and government. In these sessions and in conversations with South African colleagues attending the conference, I noticed two expressions being used quite freely, namely, 'environment is in the curriculum' and 'environmental learning', without any apparent need to gloss them. I have to admit that these two expressions bothered me at first, and so my reflections on these constructs should be seen as emerging from my initial feelings of uneasiness. Although the two constructs are not divorced from each other I shall at times separate them in my discussion so as to give greater attention to the latter, which I contend is fraught with dangers.

I assume that what is meant by 'environment is in the curriculum' is that environmental concerns are reflected in some of the outcomes of learning areas and content selections of the GET band and the subjects of the Further Education and Training (FET) band. Furthermore, I assume that environmental interest is embodied in one of the nine principles on which the National Curriculum Statement of the FET is based: 'human rights, inclusivity, environmental

and social justice' (Department of Education, 2003:7). Or as described in the Revised National Curriculum Statement for the GET: 'The relationship between human rights, a healthy environment and social justice is addressed in each Learning Area Statement' (Department of Education, 2002:10). The inclusion of environmental concerns in South African curriculum policy is a positive step towards integrating environmental education into formal education. This has created opportunities to enable environmental education processes in classrooms.[1] However, the fact that some of the learning outcomes embody environmental concerns does not guarantee that 'environmental learning' will occur. Another problem is that the learning outcomes do not necessarily reflect the complexities of the term 'environment' and the associated problems, issues and risks. At most, what the learning outcomes and Principle 7[2] of the National Curriculum Statement for FET do is to provide opportunities for enabling some environmental education processes, of which 'environmental learning' is integral. Environmental learning depends on teachers recognising the opportunities that environmentally-oriented learning outcomes provide; teachers' knowledge of place and dimensions of environment; and teachers' having the pedagogical knowledge to mediate environmental learning. Naïvely bandying around an expression like 'environment is in the curriculum' is dangerous. It could produce a simplistic interpretation of what the learning outcomes and knowledge foci (GET) or content selections (FET) identified in South African curriculum policy documents encapsulate, namely that all that is to be said about environment is embodied in the mentioned policy documents and, furthermore, that all that needs to happen is the learning of these by school and other learners. While these are important issues, however, my concern in this article is to raise some criticisms of the expression 'environmental learning' and to argue why it might be preferable to talk about environmental education instead.

'Environmental learning', an idea propagated by the National Department of Education[3] (Reddy, 2004, pers. comm.), is a language used to reinforce learner-centred education, which is one of the key features of the post-apartheid national curriculum. There are two ways in which it needs to be seen. Firstly, it needs to be understood as part of an international trend to shift emphasis from teaching to learning. For example, technology makes it possible to make learning take place whenever and wherever desired. Learning can involve the ability to access information rather than being a process that engages deliberation among learners and between learners and teachers. Secondly, as a response to teacher-dominated pedagogies that characterised apartheid classroom practises. With respect to South Africa's new learner-centred curriculum framework, Malcolm (1998:45) points out that learning programmes[4] should do the following:

- Put learners first, recognising and building on their knowledge and experience, and responding to their needs.
- Create opportunities for all to learn, including persons with disabilities.
- Acknowledged and accommodate different learning styles and rates of learning.
- Construct ways in which different cultural values and lifestyles affect the construction of knowledge.
- Motivate learners by providing them with positive learning experiences, by affirming their worth and demonstrating respect for various languages, cultures and personal circumstances.

- Acknowledge that not all learners learn at the same rate and in the same way – learners should attain them through a wide range of experiences encountered over several grades and in a variety of contexts.

Few would disagree with Malcolm (1998) that some or all of these should be integral to all good education programmes. So what then is the problem with a 'language of learning'? Part of the answer lies the fact that we have learned over the years how powerful language is, that language not only describes reality (practices) but also is a practice itself, that is, it is something that we do. Moreover, language constitutes reality (what can be said, seen, known, thought and be done). As Biesta (2004:70) writes:

> Just as language makes some ways of saying and doing possible, it makes other ways of saying and doing difficult or even impossible. This is one important reason why language matters to education, because the language or languages we have available to speak about education determine to a large extent what can be said and done, and thus what cannot be said and done.

Whether we (un)consciously either use the construct 'environmental learning' or 'environmental education' matters because the construct we choose will enable or place constraints on what might be done. But why has a language of learning emerged?

The Rise of a Language of Learning

The rise of a new language of learning in South Africa is evidenced by the frequent use of the concept 'learning' in policy documents; by the identification of life-long learning as one of the key features of the National Qualifications Framework (NQF); by increased talk of adult learning and not adult education; and more recently, the emergence of a language of environmental learning instead of a language of environmental education. However, developments in South Africa need to be understood in terms of the emergence of a language of learning internationally and in particular in countries of the 'developed' world. Biesta (2004:80) argues that the emergence of a language of learning should be understood as the unintended outcome of a range of different developments: new theories of learning, postmodernism, the silent explosion of learning and the erosion of the welfare state. New theories of learning refer to developments in the field of the psychology of learning and specifically the emergence of constructivism and socio-constructivism. New theories of learning shift the emphasis from teacher to learner since they are premised on the view that learners actively construct knowledge and understanding and that knowledge cannot be transferred intact from teacher to learner. The postmodern critique of education views education as a modern project and troubles the idea that teachers can liberate and emancipate their students. By the 'silent explosion' Biesta (2004:73) refers to the mushrooming of non-formal kinds of learning such as 'fitness centres, sport clubs, self-help therapy manuals, internet learning, self-instructional video's, DVD's and CD's, etcetera.' The rise of learning is also associated with the decline of the welfare state and the rise of neo-liberalism. The welfare state provides all citizens (rich and poor) with health care, security, education and so on. Biesta (2004:33) argues that within the neo-liberal state, 'value

for money' has become the key principle in many of the transactions between the state and tax-payers. The state's role has shifted from provider of the mentioned goods to taking on a monitoring role with tighter systems of inspection and control, and prescriptive over education protocols – what Ball (2003) refers to as a rising culture of performativity. In this context, Biesta (2004:73) argues, parents are viewed as consumers of the education of their children, and the suitable name for the consumer therefore, the learner.

All of these developments have influenced the development of a language of learning in South Africa, even though the influence of postmodernism may be negligible. Constructivist and socio-constructivist theories of learning have had a particular appeal in South Africa because they offer a response to the teacher-dominant pedagogies (influenced by Fundamental Pedagogies and Christian National Education) that have characterised education practices during apartheid. As a consequence of globalisation there is also a growing market for non-formal forms of learning such as the ones described earlier. The expansion of neo-liberalism is strongly felt in South Africa. Since 1994 we have witnessed both the commercialisation and privatisation of government assets and that the state is actively putting in place tighter systems of inspection and control. In relation to education, quality assurance, for example, has become a favourite word in many of the education policy documents. There is no place here to discuss these developments in great detail. Suffice it to say, the usage of concept 'environmental learning' may be understood in the context of these developments.

The developments that I have described are not all bad. My concern is not with the (de)merits of each development but rather with the unintended outcome that these developments have collectively produced, that is, the rise of a language of learning. But, what is wrong with a language of learning? Biesta (2004:74) argues that one of the main problems with the new language of learning is that it makes possible the re-description of the process of education in terms of an economic transaction; that is, the learner (who has the needs) is the consumer, the teacher or education institution the provider, and education becoming a commodity. But, should the education process be understood as an economic transaction? I go along with Feinberg (2001) and Biesta (2004) that education should not be viewed as an economic transaction. In a typical economic transaction a consumer knows what (s)he needs and wants and manufacturers and retailers provide for such needs and wants. However, it is questionable whether children know what it is that they want from education. Even adults do not always know what they want from education or what their needs are. People engage in education precisely to find out what their needs and wants are and education professionals play a vital role in helping students with finding out what it is that they actually need. Furthermore, viewing education as an economic transaction dilutes education processes to technical concerns of efficiency and the effectiveness of such processes, neglecting questions concerned with the content and purpose of education which Biesta (2004:76) argues should form part of the education process – that asking questions about the content and purpose of education are important educational questions.

The Nature of Education

Education has always been and will in all probability continue to be a contested terrain. However, one could claim that education always involves an element of risk. Even if a learner

believes that they know what it is that they want or what their needs are these might change in the education process – education processes always produce unintended outcomes. For example, in the education process there might be serendipitous moments that students might not have imagined they would experience and also instances when their beliefs, values and their notions of truth are challenged/disturbed. Biesta (2004) goes as far as to claim that education only begins when the learner is willing to take a risk. He writes:

> To negate or deny the risk involved in education is to miss a crucial dimension of education. To suggest that education can be and should be risk free, that learners don't run any risk by engaging in education, or that 'learning outcomes' can be know[n] and specified in advance, is a gross misrepresentation of what education is about (Biesta, 2004:77).

Although not the main concern here, Biesta's argument also provides a basis for critiquing outcomes-based education, which is premised on the idea of pre-determined outcomes. But, let me return to the centrality of risk in education and by pointing out that teachers' roles in 'managing' the risk involved in the education process is crucial. Sometimes teachers have to play nurturing roles, and sometimes they have to disturb students. They also have to make pedagogical judgements; for example, when shall the pedagogical episode begin and when shall it end. These responsibilities, Shalem, (1998) argues, constitute the pedagogical authority of the teacher.

But, what are some of the implications of what I have discussed for a language of environmental education?

Why a Language of Environmental Education?

The arguments made for a language of education generally are also applicable to environmental education, except that the nature of environmental problems increases the risk[5] involved in environmental education processes as compared to education processes in general. Environmental problems are complex and so are their solutions. Today's solution may be tomorrow's problem. Associated with environmental problems are risks that have become pervasive in contemporary society so much so that Beck (1992) refers to society of late modernity as risk society. Risk society is characterised by the distribution of 'bads' or dangers across the globe. Beck (1992) argues that risk society is concerned with a type of immiseration of civilisation. The immiseration he refers to does not involve material impoverishment, as was the case of the working masses of the 19th century, but rather concerns the threatening and destruction of the natural foundations of life. The ubiquity of risk is evident today when harmless things such as wine, tea, beef, pasta, etc., turn out to be dangerous (see Beck, 1992:51). Beck (1992:52) points out that in contrast to the immediacy of personally and socially experienced misery in the 19th century, today's civilisation presents threats that are intangible, brought to consciousness chiefly in scientised thoughts. More and more the public are dependent on the knowledge of experts in the field of science to make decisions concerning risks that might affect their lives. People are therefore becoming increasingly incompetent about their own afflictions. Le Grange (2004) points out that in the developing world risk associated

with material impoverishment is still largely present, thus compounding risk in such societies.

Perhaps I have taken the discussion beyond the meaning that those who use the term 'environmental learning' give to it. It may be that 'environmental learning' is used in a more trivial way than the language of learning I have discussed in this article. I mean trivial in the sense that it is unquestioningly accepted that all that is to be said about environment is embodied in curriculum policy documents ('environment is in the curriculum') and all that must happen in classrooms is the learning of what is defined in the policy documents ('environmental learning'). Perhaps my discussion of an emerging language of learning can be meaningfully employed to read education policies in general and constructs such as 'environmental learning' deconstructively, that is, to lay bare traces of a new language of learning.

The complex and contingent nature of environmental problems and their associated risks cannot be captured in a few learning outcomes of a National Curriculum Statement – so 'environment is [not] in the curriculum'. What the National Curriculum Statement for FET and the Revised National Curriculum Statement for the GET does is to provide the spaces for enabling environmental education processes. But recognising these spaces requires teachers who have an understanding of environmental education processes. To ensure this, environmental (teacher) education has a cardinal role to play. If teachers are not able to recognise the spaces for enabling environmental processes then in all likelihood they will continue as presently is largely the case, in copycat fashion use exemplars provided in policy documents – resulting in, for example, the majority of South African Grade 1 classes doing recycling at a given point in time. Moreover, environmental learning is dependent on teachers mediating environmental knowledge, on teachers exercising their responsibility and pedagogical knowledge. Environmental knowledge is produced in interdependent and interactive relationships between teachers and learners who engage critically with information, issues and problems, often resulting in unintended outcomes. An appreciation of this necessitates a language of environmental education and not merely a language of environmental learning. Language is loaded, so we must not dismiss lightly the importance of the terms we use: a superficial interpretation of a notion such as 'environmental learning' can have potentially damaging consequences.

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Endnotes

1 My use of classroom here refers to sites where teachers and learners interact and is not limited to a space enclosed by four walls.
2 Principle 7 is: 'human rights, inclusivity, environmental and social justice'.
3 In particular, senior departmental officials overseeing the NEEP-GET process.
4 Learning programmes are a compilation of activities, based on a particular topic, which enable learners to achieve specified critical and learning outcomes.
5 Risk is used in two senses in this section. Firstly, the risk that a student takes to engage in education processes that will inevitably have unintended outcomes. Secondly, as referring to dangers or hazards that are prevalent in contemporary society.

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Viewpoint
Responding to Destructive Interpersonal Interactions: A way forward for school-based environmental educators

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Abstract

This viewpoint paper focusses on the interpersonal problems that result in an unhealthy/unsafe school environment. Within the Southern African Development Community (SADC) region, the prevalence of domestic violence, child abuse, sexism, cultural intolerance and other destructive interpersonal interactions and relationships clearly indicate an unsustainable society; one that prevents complete health amongst its members. Of further concern is the fact that these issues have not only been shown to have a marked negative impact on the ability of young people to learn but also to engage meaningfully with peers in the classroom/school environment. This paper highlights the need for dialogue and reflection around the emotions that are often evoked by the above issues. It also argues the need for whole-school structures and procedures as crucial aspects of any response to these problems. In this regard, it suggests that the values promoted by many of the SADC states might serve as a foundation for the development of such a response.

Introduction

This viewpoint paper discusses an holistic approach that schools might take towards the creation of a healthy and safe environment. Specific attention is given to the development of whole-school structures and procedures as a response to destructive interpersonal interactions[1] within the local environment. This paper draws on the experiences and research of educators in southern Africa and abroad, particularly within the UK. It attempts to open up for debate the possibility of involving learners and colleagues in whole-school processes that will foster constructive interpersonal relationships, viewed here as prerequisites for a sustainable lifestyle and for sustainable development in general.

The UN Decade of Education for Sustainable Development suggests the need for educational processes that will achieve the overarching goal of enabling all people to live sustainably within healthy and safe environments.[2] For a variety of reasons, as outlined below, I believe that constructive interpersonal relationships are an essential component of such healthy and safe environments and, therefore, should be given due attention by environmental educators.

Common Problems Experienced in the Local Environment: Some Causes and Effects

The environmental concerns which currently serve as a common focus for school-based environmental education processes include those that have a negative impact on the local natural resources and that result in an unhealthy biophysical environment. Such problems include water and/or air pollution, the loss of biodiversity, soil erosion and poor waste management, amongst others. Beyond such problems, however, what commonly makes the local environment especially unhealthy and unsafe are destructive interpersonal relationships, including child abuse and neglect, emotional abuse, physical violence, prejudice and discrimination, and a general disregard for the rights of others. These issues operate in vicious cycles and are evidenced in the destructive interactions and relationships that often exist in the school environment, between learners themselves and between learners and their educators. These interactions include fighting, swearing and bad language, and little or no respect for others, etc. Such confrontational, disruptive and destructive behaviour in general, continues the destructive cycles of anxiety, fear, anger and disaffection.

Just as the problems involving the biophysical environment have their root causes in political, economic and social structures, processes and systems of the past and of the present, so too do the issues mentioned above. These issues are clearly situated in the cultural and social history – the social patterns and the social habitus – of each and every social group. However, these interpersonal relationship problems are not only linked to social circumstance but are also closely linked to intrapersonal factors (Johnson, 2003); a person's self-awareness/self-concept and self-esteem. This 'intrapersonal relationship', in turn, impacts hugely upon a person's ability to express emotions and feelings, especially difficult ones, such that constructive interpersonal relationships are built and maintained (Johnson, 2003). This would strongly suggest that healthy and (emotionally) safe school and classroom environments, where learners and educators constructively express difficult emotions and are still accepted, are crucial for the emotional, spiritual and physical health of individuals.

Destructive Interpersonal Relationships in the School Environment

A question that is currently being asked, relates to whether any of the above-mentioned interpersonal relationship-related issues link to the biophysical dimension of environment and, thus, whether educators should give attention to such issues within their environmental teaching and learning interactions. I believe that the answer is 'yes', for at least three reasons. Firstly, research has shown that a person's current emotional state often blocks the way to working with others in learning situations (Antidote, 2003)[3]. This is particularly problematic when one considers that cooperative and/or collaborative learning processes are widely acknowledged as being central to enabling meaningful socio-ecological change (Janse van Rensburg & Taylor, 1993). Secondly, these issues appear to have a marked negative impact on the ability of young people to learn in general. And, thirdly, the above problems, evident in our schools and surrounding neighbourhoods, are undoubtedly impacting upon the quality of life of many individuals, both young and old.

Many learners and educators regularly experience anxiety-inducing situations and/or struggle with personal trauma and, consequently, are unable to engage meaningfully with classmates and/or educators in cooperative learning activities. In this regard, research conducted by Antidote (2003) suggests that it is difficult emotions in general that not only generate disaffection but also constrict learning. The ability to communicate and be flexible and tolerant is enormously reduced among people who have unresolved personal traumas (Cabrera, 2003). Such traumas may be as the result of any or all of the relationship problems listed above, and may also include such 'minor' interpersonal confrontations such as a heated 'tea-break' argument, or a disagreement at home, or even a put-down from a teacher.

Responding to Destructive Interpersonal Relationships in the School Context

Numerous educational organisations[4] (mostly outside of Southern Africa) are finding that destructive interpersonal interactions, inside and out of school, and the difficult emotions that they often evoke, provide opportunities in class for meaningful interactions and learning and for enabling learners to acknowledge their feelings and express and reflect on them individually and collectively. Such educational processes do not appear to require the mediation of trained counsellors but may, in fact, be facilitated through the development of whole-school structures and processes.

The above processes relate closely to the provision of opportunities for learners to reflect on how they feel about (and do) things, which has been in good education, often most notable in 'life skills' curriculum activities, for some time. In general, however, the interplay that appears to occur between the emotions and cognitive factors is not given explicit attention within the teaching and learning interactions that play out in schools. In particular, learners (and educators) rarely seem to be involved in actively thinking about, and discussing, how emotions, elicited by one or the other (destructive) interaction, shape one's actions and behaviour within relationships. Without this, the development of an understanding of one's own emotions and those of others and then of finding a way of allowing this understanding to inform one's actions is retarded.

What seems necessary, are structures agreed upon by the whole-school community that enable the active engagement of learners and educators in dialogue and reflection with a focus on the issue at hand and, in particular, on the emotions and the way in which they influence one's actions within relationships. The creation of such responsive schools and classrooms, where learners and educators constructively express difficult emotions and are still accepted and valued (especially those affected by the HIV/AIDS pandemic) suggests that these structures might most usefully be incorporated within a formal school policy. In South Africa, for example, such a policy,[5] developed by the whole-school community, might focus on using the values outlined within the Constitution to serve as a useful framework for ensuring the constructive expression of emotions and the maintenance of caring relationships. A 'values climate' such as this would serve to support and nurture constructive intrapersonal relationships as well as constructive interpersonal relationships in every classroom across the curriculum on an ongoing basis.

The development of a school policy that focusses on values, as described above, makes sense in light of the interpersonal relationship problems previously highlighted. Many of the SADC states, including South Africa,[6] and various current international initiatives,[7] highlight the following fundamental values: democracy, social justice and equity, equality, non-racism and non-sexism, an open society, accountability (responsibility), the rule of law, respect and reconciliation.

These, and other values, such as compassion, tolerance, trust, empathy and peace, are what have been termed character-building (Lourens, 2004); values that might guide educators' and learners' ethical behaviour within relationships and when interacting with others. In this regard, it seems clear that fundamental to democratic processes (within schools) are the values of caring and respect for and between learners and teachers (Pennock, 1993).

Concluding Comments

In essence, it is the creation of diverse opportunities for everyone within the school community to engage with each other around interpersonal/social issues in ways that enable the appreciation of other's thoughts and feelings that is of importance. In such a school, feelings of anxiety and frustration, etc. still have the power to disrupt the processes of teaching and learning, but when they do, the emotions are acknowledged, talked about, dealt with and learned from. Not only is meaningful learning enabled, but learners' capacity to interact and to work cooperatively and with respect for others is increased. Such engagement may be best served by a school policy that pays overt attention to the quality of interpersonal relationships within the whole-school community. The values that are agreed upon by the whole-school community (and in South Africa, outlined in the Constitution) would appear to form an appropriate framework within which to develop and implement such a school policy.

Although environmental education processes of active learning have come to be viewed by many as being central to good education, such processes have not, in general, included a focus on interpersonal problems nor provided explicit opportunities for learners to express difficult emotions constructively. I believe that the involvement of learners in dialogue and reflection around difficult feelings needs to be seen as integral to environmental education processes/good education and to enabling learners to play a role in the creation of a healthy and (emotionally) safe environment. As with environmental teaching and learning, the involvement of learners in the above processes is not something that can be confined to any particular learning area or group in the school. These processes might be most effective when viewed as fundamental to all school interactions, permeating what goes on in the staffroom, the classroom, the playground, as well as affecting how the school interacts with the wider community. A school policy that is negotiated, developed and implemented by the whole-school community might be an effective way to enable this.

Notes on the Contributor

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Endnotes

1 The phrases 'interpersonal interactions' and 'interpersonal relationships' are used interchangeably throughout the text.

2 A healthy and safe environment may be viewed as one that sustains a person's emotional, spiritual and physical health.

3 Antidote (2003) is a UK-based educational project that focusses on emotional literacy in schools.

4 These organisations include the Bristol Education Action Zone, the Collaborative to Advance Social and Emotional Learing (Payton *et al.*, 2000) and the National Emotional Literacy Interest Group (NELIG) amongst others.

5 A policy process that follows the recommendations outlined within the Schools and Sustainability pack (Share-Net) involves learners, educators and other school staff, and parents in the deliberation, development and implementation of the policy, to ensure the creation and sustaining of a healthy school environment such that environmental learning takes place throughout the school curriculum.

6 In South Africa, the government-led 'Values and Human Rights in Education Initiative' has identified 16 'steps' for educators to take in order to ensure that these values become embedded within the school curriculum and, ultimately, a part of everyone's daily living.

7 The Earth Charter is one such initiative, described as a 'declaration of fundamental principles for building a... sustainable... society in the 21st century.' It focusses attention on the promotion of a range of values, including social justice and human rights as a means to ensuring a sustainable society. It emphasises the widespread problems of 'injustice, poverty, ignorance and violent conflict', and stresses the need for 'a culture of peace'. Importantly, the Earth Charter recognises that 'environmental protection, human rights, equitable human development, and peace are all interdependent and indivisible'.

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Viewpoint

On the Personal, Social and Environmental... A Response to Alistair Chadwick's Viewpoint Responding to Destructive Interpersonal Interactions: A way forward for school-based environmental educators

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> There seems to be an emerging dislocation in views on environment.
> This is manifesting in a tendency to separate out the social from the biophysical and social becomes an environmental issue in its own right, and because social issues are so prominent and dominant in society, the biophysical seems to be... oppositionalised and discarded as... 'irrelevant' or something we should attend to once the social issues have been resolved.
> (Lotz-Sisitka, 2004, pers. comm.)

Abstract

A decade or so ago, at the Earth Summit and the advent of South Africa's democracy, there were great efforts to help us understand ecological issues in relation to social issues. Much work was done to reorient those initiatives which taught about nature and ecosystems as if people and politics did not matter. Now, as we enter a 'Decade of Education for Sustainable Development', we run the danger of finding environmental education apparently everywhere, but actually nowhere. Environmental education processes must develop and deepen our understanding of the interrelationships involving our bio-physical world. This is a unique contribution to education and its reorientation. Yet we may lose this contribution in the wake of a movement to re-direct environmental education activities to focus on the dire personal and social problems affecting learners and teachers. This Viewpoint briefly considers aspects of this trend and its possible causes and consequences. It also suggests how environmental educators can get on with their particular task, and bring it appropriately to bear on the personal problems and social issues so prevalent in our schools.

Introduction

There is a trend in South Africa (and perhaps more widely in the region) to describe a broadening range of processes as environmental education – even if their focus and substance have no or only very indirect bearing on the 'environment', that is, the inter-relations between our social and bio-physical worlds.[1]

The Viewpoint by Alistair Chadwick in this volume may be part of the same trend. When one writes something, it reflects only a tip of an iceberg. When one responds to that writing, you may have to respond to more than the tip.

Elsewhere (*EEASA Bulletin*, August 2004) I have expressed concern about this trend. It is likely to create an unfortunate situation where environmental education processes are in theory 'everywhere', but in reality 'nowhere'. Here I reiterate my views on the trend of indiscriminately lining up educational activities which exclusively address social issues like abuse and intolerance under the banner of 'environmental education'. I will go on to explain why I regard as inappropriate Chadwick's proposed response to such issues, which is to diagnose and treat them as 'intra- and inter-personal'.

First, I should explain that I do not deny the prominence of grim social issues in South African schools, nor the importance of emotional and relational matters in environmental issues and responses.

Emotional Matters

Emotions undeniably play a role in our ability to learn, and in our responses to environmental issues. So does our ability to form sound inter-personal relations. We need a range of social and intellectual skills and emotional abilities in order to engage effectively in our worlds, for example to understand and tackle a pressing environmental issue. This is part of the basis for Chadwick's Viewpoint, and is not being disputed. The importance of getting along effectively with others, of understanding emotions and of tackling unconstitutional values, is indeed well recognised by the South African Department of Education, as I'll elaborate later.

Also, few South Africans would not regard violence, crime and the development of constitutional values as key concerns in almost every context across the country. The British research quoted by Chadwick is an indication of the global nature of these concerns, but South Africa might be a special case in point... here the senior politician tasked with leading government's moral regeneration initiative remains popular despite mounting allegations of the improper use of public funds, including an arms procurement transaction which had itself been questioned on ethical grounds in the context of national priorities like poverty.

Environment Matters, Too

With the advent of political change in the early 1990s, there were great efforts to help South Africans understand ecological issues (like polluted water) *in relation to* social issues (e.g. polluting industries which disregard human and environmental health). Much work was done to reorient those environmental education initiatives which taught about nature and ecosystems as if people and politics did not matter (see Box 1).

At our current point of growth as an educational endeavour (including the introduction of a United Nations Decade of Education for Sustainable Development), there is need to caution against treating social issues as if they can be *separated from, oppositionalised with and prioritised above* ecological issues. This would mean losing all the ground we gained by exploring and

demonstrating *their inter-connectedness*. Similarly, we cannot start orienting environmental education initiatives to focus on learners' personal feelings and inter-personal problems as if these must be addressed *before* we can consider the socio-ecological environment in which we live and relate.

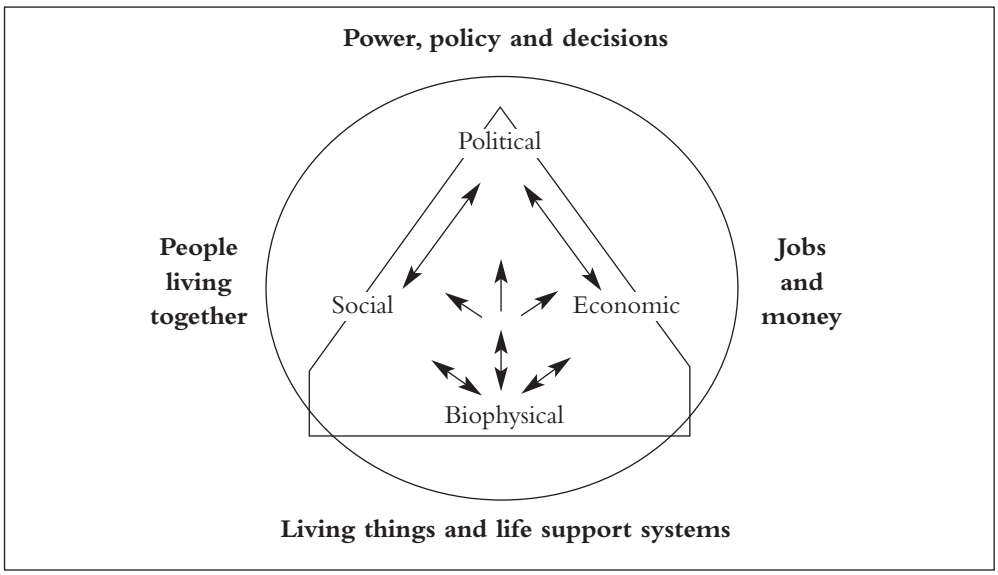
There is a common perception that 'you first need to take care of yourself before you can take care of the environment', as stated at a drug counselling talk at a recent World Environment Week event. Why does one preclude the other? When even Grade 1 learners[2] can be expected to close a tap tightly after they've washed their hands, because 'water is precious; it keeps us clean and healthy'? What would happen if governments argued that they must *first* address poverty, employment and health, *before* they can address land degradation and pollution? Consider how one would do this, and you'll realise what an inappropriate choice is being set up here. Poverty, for example, cannot be addressed without tackling the land degradation processes which exacerbate it (see Rosenberg, 2004, for an elaboration). Many governments do argue this way, and continue to fail to solve poverty and unemployment. Juxtaposing 'loss of biodiversity' with 'child abuse' is therefore, in my view, an irresponsible rhetorical strategy.

Box 1. Historical perspective on 'environment' in environmental education

In the early 1990s there was a strong critique of those environmental education practices which failed to recognise that people were part of nature, and that politics had to be examined in order to tackle environmental issues. Many embraced the idea in the groundswell of politically progressive environmental education that followed the 1992 Earth Summit, and the policy processes surrounding South Africa's socio-political transformation. As part of the Environmental Education Policy Initiative, Rob O'Donoghue published a diagramme (Figure 1) to help us clarify that *there are connections* between the biophysical base of life and its economic, political and other social dimensions.

The aims were to probe the inter-relatedness relevant to environmental education and to show that the biophysical world was indeed important in processes of social development, because it could not be separated from them. Now the same diagramme is used to claim that we can teach about social matters without any reference to biophysical connections, and still validly call our activity environmental education.

Figure 1. A diagramme (adapted from O'Donoghue, 1993) developed in the early 1990s as a tool to help us clarify the inter-relationships relevant to environmental education



Similarly inappropriate is the following 'slippages' in Chadwick's Viewpoint (and their corollaries in our wider professional community):

- Using the term 'a healthy classroom environment' in relation to the principle of 'a healthy environment' which underpins the Revised National Curriculum Statement[3] (Department of Education, 2002a).
- Referring, in the same context, to 'a safe environment' while meaning a safe space for expressing feelings.

A supportive atmosphere is certainly necessary, and hard to find in many schools. But children *also* need a clean atmosphere free of pollutants, and a space safe from harmful wastes. When will we talk about these matters, if environmental education processes are now also required to focus on emotional upsets?

The consequences of bundling every necessary educational focus under the label 'environmental education' include:

- Diffusion creating confusion: If we call our initiatives 'environmental education', but we do nothing different from life skills educators or social workers, how should teachers and education officials understand our particular contribution? Suggesting to a teacher that creating an atmosphere conducive to learning is a way of addressing the curriculum principle 'A healthy environment' misinterprets the policy and does the teacher a disservice; s/he needs to do both, and s/he needs to understand the difference!
- Ecological matters receiving scant and/or inappropriate attention in schools, if teachers come to call everything they do environmental education, because we submit that 'environment is everything'.

- Lack of accountability to funders who support environmental education initiatives because they have a mandate to address socio-ecological (environmental) issues; it is hard to see how they would distinguish the kind of work Chadwick proposes from other social development and educational support initiatives.

Education and environmental education

Dewey's suggestion that education must be 'holistic' is widely accepted, and often stated as the need to develop 'skills, values, attitudes and knowledge' and 'educating the whole person'. In the South African education system, teachers are meant to be not only subject specialists, managers and administrators, but also 'pastors' (Department of Education, 2002b:9), indicating their role in giving moral guidance and responding to the emotional needs of learners. In recognition that the emotional and spiritual development of the learner cannot be adequately addressed through the general subjects, a Learning Area which specifically addresses life skills (among other aspects), is part of GET. Life Orientation, as it is called, is one of only three subjects which are compulsory also in the FET band – indicating that country-wide calls for helping learners to understand, deal with and rectify emotional and ethical concerns, have indeed been heard at a policy level.

The Department of Education (2001) produced a *Manifesto on Values, Education and Democracy* which highlights fundamental values of the Constitution, including:

- Democracy.
- Social justice and equity.
- Respect.
- The rule of law.
- Reconciliation.
- Non-racism and non-sexism.
- *Ubuntu* (human dignity).
- An open society.

The *Manifesto* identifies 16 strategies for familiarising young people to these values, including:

- Nurturing a culture of communication and participation in schools.
- Role-modelling: promoting commitment as well as competence among educators.
- Promoting anti-racism in schools.
- Dealing with HIV/AIDS and nurturing a culture of sexual and social responsibility.
- Making schools safe to learn and teach in and ensuring the rule of law.
- Infusing the classroom with a culture of human rights.
- Ensuring that every South African can read, write and think.
- Promoting ethics and the environment.

South Africa's Constitutional values find expression in the new curricula through the required critical outcomes, developmental outcomes and learning outcomes for each of the learning areas. As those familiar with South African schools know, however, these policy ideals are in reality not always evident, and Chadwick reminds us of the daily incidences of racism,

sexism, intolerance, lawlessness, abuse and other forms of violence which many teachers and learners experience. His suggestion includes taking the national policies into school policies, structures and processes. This could be a useful dimension of the multi-pronged approach which is undoubtedly required.

I have not yet seen the value of more local-level policies and structures, but they might make a difference in some situations. School policies could remind those teachers who fail to promote constitutional values and sound interpersonal relationships, of the national policy directive. As Chadwick hints, part of the problem is that many teachers themselves lack the desired values, emotional insights and interpersonal skills. These are however difficult to 'enforce' with policy directives. What I have seen time and again is the value of the 'role-modelling' of commitment, care and respect which so many environmental educators embody in their way of work. Environmental education processes which focus on helping learners understand and respond to socio-ecological issues can address most of the strategies outlined in the Department's *Manifesto*. I am much less confident about the value of environmental education processes which 'include a focus on interpersonal problems and... explicit opportunities for learners to express difficult emotions constructively'. I will explain why in the next section.

The above has shown that South African teachers have indeed been tasked to address the personal and social development of learners as part of general and further education. Chadwick acknowledges this, but indicates that not enough is being done, and therefore environmental learning should also be rallied to address the cause. His quest seems to be that, since life skills activities are not succeeding in resolving personal traumas and improving inter-personal relationships in schools, the principle of a healthy environment, and the resources and learning outcomes meant to address environmental learning, should also (or rather) be used to develop learners' life skills for recognising, expressing and handling emotions and social issues, and for understanding the way these impact on learning.

Environmental educators should get on with the job of environmental education: planning and conducting environmental education processes with recognition of the role of personal and inter-personal issues, but not side-tracked to *focus* on these, or bundling them into an unwieldy burden of 'important things to address'. It has long been argued that 'good education is environmental education', meaning that sound, holistic educational processes will address environmental concerns and responses centrally. This does not imply that 'environmental education is all the education a person needs'. Chadwick notes that 'environmental education processes are central to good education' and proceeds to interpret that as 'environmental education is synonymous with (equivalent in meaning to) good education'. With this conceptual slippage we turn environmental education into a meaningless concept and destroy its *raison d'etre*.[4]

The concepts of 'education' and 'environmental education' are related, but they are distinct. One of the relations between the two concepts is that environmental education is aimed at re-orienting education (in general). The question now is – in what way?

The role of environmental education processes in dealing with interpersonal matters

The re-orientation of education (in the interest of environmental sustainability) is not in my view best served by focussing more on the self and personal emotions. This particular approach

to 'life skills' has a number of limitations relating to the 'pscyhologising' of issues and individualism.

Diagnosing issues ranging from the neglect of children to domestic violence as 'psychological' is a dangerous form of reductionism. It ignores, for example, economic circumstances and social norms which can create and support such situations.[5] It positions individuals as singularly responsible for problems and their resolution. This way of understanding problems is part of the individualising turn which is traversing the globe along with the Oprah Winfrey Show, Northern-sponsored educational reform and market economy principles. Significantly, individualism as a social value has been implicated in many environmental issues (see Orr, 1990) ranging from consumerism to unjust wealth creation by exploiting workers and natural resources in the interest of 'shareholder values'.

In developing the Life Orientation curriculum for South Africa's GET band we tempered the individualising orientation of the life skills movement. Thus the departure point for this version of Life Orientation is not 'The Self', but 'Self-in-Society', in keeping with the curriculum principle that 'a person is a person through other people'.[6] This means, for example, that the learning outcome for Personal Development requires learners to understand their personal and interpersonal concerns in relation to communal and wider contexts.[7]

Environmental education makes us aware of inter-relatedness: between plants and soils; between people and plants; between people, plants, prosperity and policies; and so on. It helps us understand that our actions are constrained and enabled by socio-ecological circumstances including political history, cultural traditions and economic resources. That is why, in a rubbish-strewn settlement, environmental education processes would go beyond treating people as simply 'unaware', to engaging them in dialogue about how best to improve facilities and resources, and critically reviewing traditions and influences which shape actions and habits like dumping and littering. Such dialogue and critical reflection also helps people move beyond the rhetorical blaming of systems (like apartheid or poverty) which can prevent us from making those improvements which are within our power.[8]

The Life Orientation curriculum includes three learning outcomes: Personal Development, Social Development, and Health Promotion; the last of these looking at the health of the individual, the community and the environment. These learning outcomes should be taught in combination, rather than separately. For example, in a group project in which learners explore a local environmental health problem (such as water pollution) they might also explore conflict resolution and problem-solving strategies (assessed towards Learning Outcome 3, Personal Development, and not towards Learning Outcome 1, Health Promotion), and tolerance for diversity in the group (assessed as Learning Outcome 2, Social Development).

It is the role of environmental educators who work with school-based educators to strengthen teachers' capacity related to environmental health (in this case, water pollution in all its social, economic, political and ecological complexity). If we additionally, or instead, take upon ourselves the role of life skills educators, counsellors and social workers, we can only hope that someone else continues with environmental education.

Box 2. Re-orienting educational responses to personal issues – an illustration

Leti cannot concentrate on her environmental project. She is thinking about her boyfriend, T.K. Her parents think he is a no-good criminal and, true, he does have a rough side, but she does not really mind, because he spoils her with cash and clothes. The problem is, last night he beat her badly and now her parents are going wild.

How does a teacher approach the situation?

The approach proposed in Chadwick's Viewpoint would entail getting Leti to express her feelings in a supportive situation, and reflect on her feelings and those of the other role players. What would be the likely result?

I believe that Leti might learn from such reflections that she has a right to be happy, and perhaps also that she has a low self-esteem. She might reflect (rightly or wrongly) that her father is jealous because he cannot provide for his family as well as T.K. As far as T.K.'s feelings are concerned, she might simply reflect that he was angry with her, that he knows he can get any girl and that she should toe the line if she wants to stay his favourite. She might note that her mother and teachers care deeply for her, but also that they cannot keep her safe in the world out there – and even an education cannot guarantee her future security. Having her right to be happy and secure affirmed, but learning little new from her reflections, Leti might just confirm that she needs money in her wallet and to look good by T.K.'s side, and that no one has much else to contribute.

This scenario is fictional (though supported by reviews of women's experiences[9]). I use it to illustrate the possible – I believe likely – outcomes of the proposed 'express and reflect' educational strategy for dealing with issues.

Reflection is a critical capacity not widespread in our society. It is perhaps best taught in the context of issues and information which provide learners with principles and parameters. To simply express and reflect on feelings with little input from a teacher does not necessarily constitute dialogue and is not sufficient for learning better ways to respond to issues. Dialogue would engage learners and encourage them to look behind and beyond feelings; reviewing their origins and probing their consequences against a range of considerations and alternative possibilities. Leti might develop a more useful understanding of her inter- and intrapersonal relationships through dialogue and reflection on how sexism in traditional and contemporary cultures *shapes* her 'personal' feelings about what is right, wrong and possible – for example.

What is the environmental educator's approach to the above scenario? If her environmental project was well supported by an educator, Leti's understanding of herself and the world could have benefited from exploring how advertising that fuels the consumption of natural resources, plays into deep-seated values and shapes a common understanding that consumer goods are the ultimate route to happiness. Learners (and therefore their teachers) need considerable information (of the kind often described as 'environmental') to be able to understand these and

other ways in which dominant economic systems and underlying values create the situations where young women need the goodwill of men for a sense of (and real) security. Environmental education processes must help us develop and deepen our understanding of such wider inter-relationships. It is still a unique contribution to education and to the re-orientation of education, as a review of the South African education policy illustrates. We are not only failing to implement this policy if we reduce environmental education to simply dealing with what seems most prominent in the moment; we are also failing our beleaguered youth.

Notes on the Contributor

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Endnotes

1 I draw here on the ever-useful definition of 'environment' by Giovanna DiChiro (1987).

2 See Learning Outcome 1 of the South African Life Orientation (Life Skills) curriculum for Grade 1s, which requires learners to 'Explain steps to ensure personal hygiene and link these steps to environmental health' (Department of Education, 2002a:16).

3 The South African curriculum for GET is underpinned by the values, described as inter-related, of A Healthy Environment, Social Justice, Human Rights, and Inclusivity (Department of Education, 2002b). This curriculum dictates to all Learning Areas (subjects) learning outcomes which directly and indirectly address environmental learning, in which 'environment' is interpreted as the biophysical world on which people and their economies depend. The curriculum refers to environmental issues as distinct from (although related to) social issues, social justice and human rights issues. That is, one issue can have both environmental and human rights implications, but *not all social justice or human rights issues are necessarily also environmental issues*.

4 The reason for or purpose of a thing's existence (Oxford Paperback Dictionary, 1994).

5 Chadwick refers briefly to the historical and social roots of 'interpersonal' issues, but does not include them in his educational approach to these issues.

6 Attributed to the Nguni value of *Ubuntu*, which has equivalents in many other African societies.

7 Grade 6 learners must explain causes of communicable diseases (such as HIV/AIDS) '*in relation to community norms and personal values*' (Department of Education, 2002a:29). Grade 7 learners must 'Discuss the personal feelings, *community norms, values and social pressures* associated with sexuality' (p.40, emphases added).

8 Individual learners are seldom able to resolve social and even interpersonal issues (e.g. violence from the father of a poverty-stricken household); the individual's power to deal with such matters constructively is increased by an understanding of the bigger picture (e.g. understanding patriarchy and unjust economic relations helps to overcome shame and empowers the individual to seek help).

9 See, e.g., Leclerc-Madlala, 2001.

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Viewpoint

Speaking of Sustainable Development and Values... A Response to Alistair Chadwick's Viewpoint Responding to Destructive Interpersonal Interactions: A way forward for school-based environmental educators

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Abstract

It may be considered unfair to respond to a paper from the point of view of another discipline, especially if central issues or assumptions in that article are discussed critically. In this paper, comments are made on Alistair Chadwick's paper from the point of view of philosophy and ethics, but these are offered in the spirit of a constructive dialogue across narrowly conceived disciplinary borders. The general theme of these comments also calls for interdisciplinary dialogue: the language *that we use in our debates about environmental education, ethics and action. As such, language is a theme about which every discipline in the social sciences can make a meaningful contribution, and this is what I would like to offer here.*

In this Viewpoint I will focus on only one issue, namely certain problems that may arise if we accept the language in which Chadwick speaks in his paper about 'sustainable development' and 'values' respectively. I will raise a number of critical points in this regard, not because there is one and only one appropriate language within which we can discuss our environmental concerns and our (educational) responses to them, but rather because we should be self-consciously aware of the assumptions and implications hidden in the language that we choose to discuss these matters, thus enabling us to disect and evaluate these assumptions and implications with a view to determine to what extent they enhance or undermine our efforts to understand the nature and extent of the environmental challenges that we are faced with.

Speaking of Sustainable Development

In the earlier parts of his paper, Chadwick refers to a 'sustainable lifestyle' and to 'sustainable development' as two important goals that should be set for (environmental) education, and that this should be achieved by 'whole-school structures, procedures and processes' that respond to 'destructive interpersonal relationships' and at the same time 'will foster constructive interpersonal relationships'. I think that Chadwick is right when he states that constructive interpersonal relationships are prerequisites for a sustainable lifestyle and for sustainable development in general. This is not in dispute, and also not his observation that destructive interpersonal relationships such as child abuse and neglect, emotional abuse, physical violence, prejudice and discrimination, and a general disregard for the rights of others, will prevent learners from effectively engaging with the problems of an unhealthy bio-physical environment that includes water and air pollution, the loss of biodiversity, soil erosion and poor waste management.

What is in dispute, however, is the manner in which Chadwick distinguishes and separates from one another two, maybe even three different 'environments' when he speaks of a safe and healthy environment that needs to be sustained, and then does not really succeed in putting them back together again – in the sense of showing convincingly how they interact and bear upon one another.

When Chadwick speaks about a healthy and safe environment, he sometimes refers to the *bio-physical environment* and natural resources, and sometimes to the *social environment*, including in this culture and social history as well as destructive interpersonal relationships, but he mostly speaks of a healthy and safe *classroom environment* in the sense of an educational context (whole-school structures, procedures and processes) in which learners can feel safe to express difficult emotions and develop constructive interpersonal relationships.

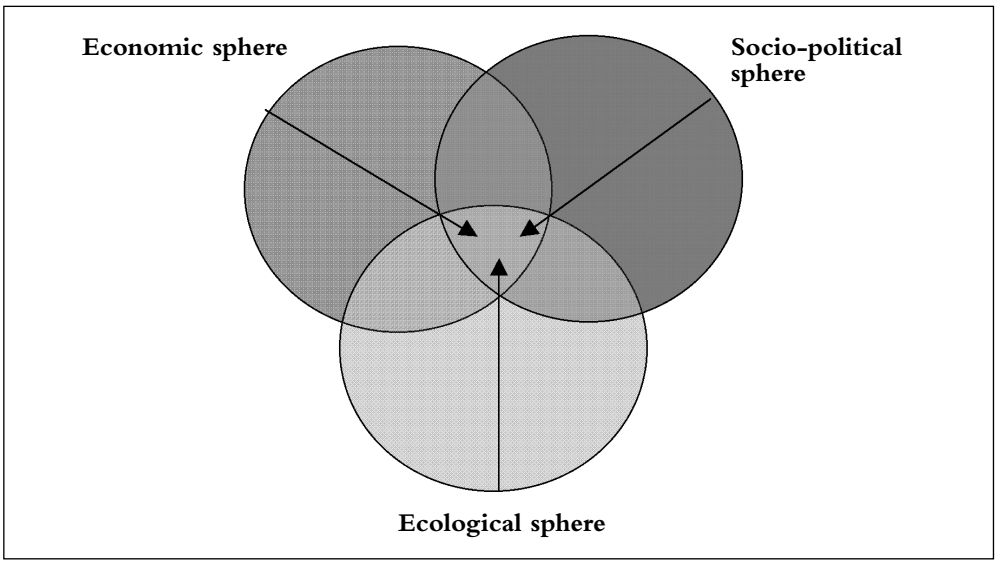
Chadwick furthermore seems to argue for a recognition in environmental education of a set of problems that are related to the *local environment* and makes it 'especially unhealthy and unsafe'. These problems are those that he classifies as destructive interpersonal relationships, and he argues that these should be recognised 'beyond' problems such as pollution and poor waste management that result in an unhealthy bio-physical environment.

If I read Chadwick's suggestions in this regard correctly, his argument is at one level a plea to link environmental problems in the sense of bio-physical problems to that of social problems in the sense of destructive interpersonal relationships, and again with this I have no issue. The trouble, however, starts if this *link* is portrayed to mean that social problems, because of their immediacy, should be foregrounded as that with which we should deal first, while bio-physical problems should be moved to the background to be dealt with later after we have paid attention to more urgent matters.

If this is indeed what Chadwick argues for in his paper, his viewpoint resonates strongly with the very widespread and dominant model of sustainable development that is found today in about every policy document on the environment that one can lay one's hands on, ranging from our National Environmental Management Act (107 of 1998) to the Johannesburg Declaration of September 2002 on sustainable development and its attendant Implementation Plan. According to this model, sustainable development entails an effort to 'integrate' what is often referred to as the three pillars or components of sustainable development, i.e. the economic, social-political and environmental spheres (see Figure 1).

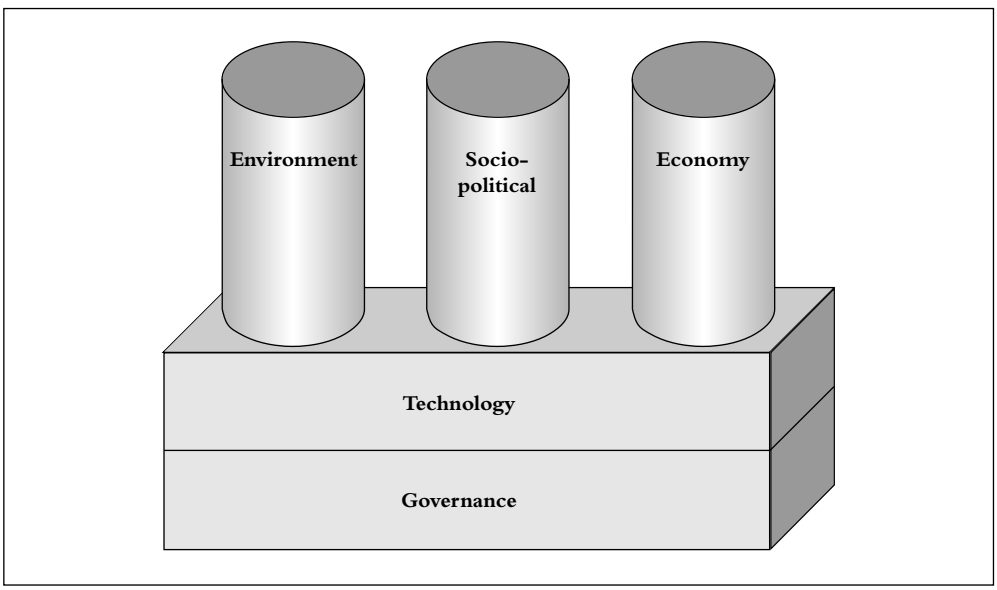
It is important to note there seems to be a remarkable consensus in the world today in the graphic portrayal of this dominant notion of sustainable development. In most, if not all cases, the classic representation of this is found in the image of three overlapping circles where each circle respectively represents the sphere of the economy, the social-political and the environment. This Venn diagram of sustainable development is usually represented in the following way:

Figure 1. The classic representation of sustainable development



While this image can be criticised for being incomplete, leaving out the spheres of technology and governance (alternative visualisations of sustainable development in which the technological and governance dimensions are incorporated), it still works with the image of three pillars that need to be integrated with one another – supported as they are by a foundation that consists of technology on the one hand, and governance on the other hand (see Figure 2).

Figure 2. Another classic representation of sustainable development: the three pillars model



Within the sphere of corporate decision-making and governance, the same model of three pillars is found in the notion of triple bottom-line accounting, auditing and reporting (Elkington, 1998). In the corporate world, this entails taking into account considerations related to financial, social and environmental factors. In terms of this, a management decision is acceptable if it makes sense in terms of all three 'bottom lines': financial, social, and environmental.

Probing this image a little further and asking what the 'integration' of these three pillars or spheres may entail, the common language that seems to dominate is either that of finding the right balance between the three spheres, or finding the optimal trade-off between them. This clearly begs the question of who determines what the right balance or the optimal trade-off between the three pillars/spheres of sustainable development is, how they go about determining this, and on the basis of which assumptions and considerations.

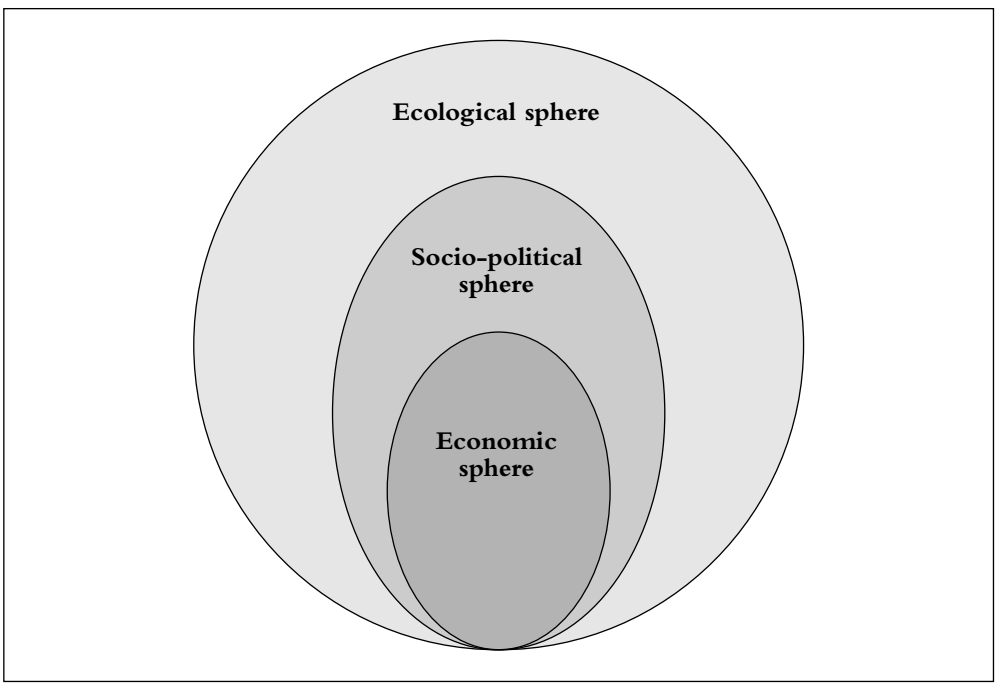
While acknowledging that these images of sustainable development are very useful to catch the imagination of a corporate audience (Zadek, 2001:107) and policy makers, and while these images will in all probability continue to express the dominant conceptualisation of sustainable development in the world, it is important to note that exactly this image (or language) of three pillars or spheres is not as innocent and ideologically neutral as it seems to be. These problems include the following:

- The three pillars model of sustainable development creates the impression of three separate spheres, each with its own set of values and working according to its own internal logic. Thus the economic sphere can be seen as aiming towards the creation of material wealth and ensuring growth; the social sphere as aiming towards improving the quality of life of people and ensuring equity between people, communities and nations; while the environmental sphere has to do with protection and conservation of our natural environment (Zadek, 2001:110). A more accurate, but far more complex image would be that of these three spheres being embedded within one other, with interlocking values and a logic inseparably intertwined with one another (see Figure 3).
- The three pillars model of sustainable development strengthens the perception of aspects of economic activity that fall outside of the social sphere and also outside of the environmental sphere, and that there is only some overlap in certain areas. Again the notion of one sphere being embedded in the other wider ones, where the wider spheres constitute holding spaces sustaining narrower spheres, could be a factually more accurate image. Indeed, there is not a single aspect of social life that does not lie wholly within the environmental sphere, that does not have environmental roots and consequences. In the same manner, all economic activity essentially comprises social processes (Zadek, 2001:111).
- The three pillars model says nothing about the manner in which the three pillars interact with or affect one another, or how they are dependent on one another (Zadek, 2001:110).
- In policy and decision-making, the interaction between the different spheres is usually reduced to making trade-offs within and between the different spheres – where costs in one sphere, e.g. the environmental, are offset (i.e. rendered acceptable) by benefits in the economic or social sphere.

- The three pillars model locks us into the language and practice of mitigating inevitable social and environmental costs related to economic and human development.
- The three pillars model assumes that resources are infinitely intersubstitutable, leaving us with no basis to argue for safe minimum standards and non-negotiable social and environmental thresholds.
- The three pillars model is embedded in a version of conventional, instrumental rationality that is not strong enough to resist current exploitation, depletion and destruction of the bio-physical environment. In fact, the three pillars model sits squarely within the paradigm that is causing our environmental problems in the first place.
- The three pillars model supports a weak notion of sustainable development that leaves the world pretty much functioning as it currently does.
- The three pillars model of sustainable development is highly anthropocentric in nature, and does not allow much, if anything, for considering what has become known as the intrinsic value of nature or non-human entities.

This brings us to the question of what an alternative conceptualisation of sustainable development may look like, and how it would overcome the difficulties of the dominant notion sketched above. Amongst scholars in environmental ethics, an alternative notion of sustainable development has been formed in which the image of three separate pillars or spheres referred to above is replaced by the image of three spheres that are embedded within one another. This alternative image would look something like this:

Figure 3. An alternative portrayal of sustainable development in terms of three embedded spheres



From the point of view of this image, each wider circle serves as a holding space for the sphere embedded within it, making it not only possible, but also sustaining it in the literal sense of the word.

This image further implies that activities in one sphere may have a negative impact, even to the point of disruption or destruction, on the larger sphere. This image then locks us into a language of prevention of impacts, instead of mitigation as in the case of the three pillars image described previously. Language also associated with this image is that of precaution and safe minimum standards, and even of non-negotiable thresholds in the social as well as the environmental sphere – thresholds that we should not even approach as a result of our economic activities.

The most important implication of the image of three embedded spheres, however, is that economic, socio-political and environmental considerations do not each have their own logic and values separate from the other spheres. Rather they are intertwined from the outset – to such an extent that a fundamental rethink is required of everything that we up until now have conceptualised as economic activity, socio-political engagement and the environment. On the question as to how such a rethink should take place, along which lines and from which assumptions, however, there is sadly still little if any consensus available in the sphere of theoretical environmental ethics, or in the spheres of environmental activism. In this regard, the scene is rather dominated by lots of experimentation and intense in-fighting between different positions.

Having said this, and now returning to Chadwick's paper, it is clear to me that his language about sustainable development reinforces the dominant, conventional model sketched above in terms of three spheres or pillars. But not only this, as I read his argument, it seems as if he adds an ideological spin to the dominant image of sustainable development. This ideology consists of privileging one of the so-called three spheres of sustainable development as if it is more important or more urgent than all the others. Thus an economistic ideology can exist in which economic considerations are deemed to be the only lens through which sustainable development should be conceptualised. Similarly, a environmentalist ideology can emerge if sustainable development is portrayed to be only about conservation of the bio-physical environment, as if people and the economy didn't matter.

If I read Chadwick's plea for a greater emphasis in environmental education on social issues correctly, he seems to level a legitimate critique of environmental education if, and in so far as it displays a bias towards addressing bio-physical issues in isolation from social issues. However, Chadwick, to my mind, trades in one ideology for another by turning social issues into the primary and sole objects of our concern – issues that we have to separate from other problems, and then attend to them first before we move on to what have been relegated to the background.

This, I believe, does not advance our understanding of environmental education, or education in general, for that matter, because it creates the impression that social issues and the feelings that they generate, can be dealt with separately from the economic and bio-physical conditions within which they are embedded.

As I see it, part of the task of education in general, and thus of environmental education in particular, is to acknowledge, foreground, explore and discuss the intricate ways in which social

issues and the difficult feelings that they create, are embedded at a specific time and a particular place, not only in concrete cultural, political and social structures, but also in wider environmental, bio-physical contexts. To think through the links and relationships between all of these structures and contexts, I believe, is the proper task of environmental education, environmental ethics and environmental philosophy.

This point can be underlined, I believe, if we briefly turn to a few critical comments about the language used by Chadwick in his paper when he speaks of values.

Speaking of Values

In the later parts of his paper, just before the conclusion, Chadwick refers to the 'useful framework' that the values outlined within the South African Constitution can provide to ensure the constructive expression of emotions and the maintenance of caring relationships. This framework, he argues, can provide a 'values climate' that would support and nurture constructive intra- and interpersonal relationships in every classroom across the curriculum on an ongoing basis.

I have no problem with the fact that Chadwick draws attention to the importance of values in education, or the values that he lists in this regard, for example: democracy, social justice and equity, equality, non-racism and non-sexism, an open society, accountability, the rule of law, respect and reconciliation, etc. The issue that I have, though, is that his language portrays the image of values as abstract entities that somehow hover over and above the things we do and the contexts within which we act, and that these values can guide our actions like stars can give us direction if we have to navigate over a landscape at night.

Chadwick refers to the Constitution as a possible source of values, and I concede that he is correct in this regard, but at the same time I would like to argue that a legal instrument such as a Constitution can be experienced by learners and teachers alike as an external framework that is brought from the outside to a context of learning or decision-making or action, containing a number of ready-made values that at best are 'applied' or at worst imposed on that context.

An alternative way of speaking about values, I would like to suggest, could be to refer to them as those reasons that we quote to justify our choices and actions (Hattingh, 2004:53). We have words and phrases like 'compassion', 'tolerance', 'trust', 'empathy' and 'peace' to summarise these reasons, but I do not think that these reasons exist like abstract entities besides the acts of valuing in which we determine what exactly it is that we find important.

Within the context of education, I believe, this alternative way of speaking about values can help us to acknowledge that an important part of learning consists of uncovering, discussing and assessing the ways in which we value things. From this point of view, the act of valuing, and the many different sources (besides the Constitution) on which we draw to determine or justify what we find valuable, move to centre stage, as well as the contextual forces that shape our valuations, such as vested interests, ideals, dreams, frustrations, ideologies, history, recent experiences, myths, legends and many more.

As such, every act of valuing is part of a particular context that is embedded in wider contexts, and I would like to believe that valuing can be much more than merely a response to

a set of stimuli. In the act of valuing, the valuer takes a stand with regards to what is valued, and as such enters into a relationship that can take many forms, including that of affirmation or rejection.

This perspective, I believe, is important for education in general and environmental education in particular in so far as it prompts us to foreground the manner in which we determine what is of value in a specific situation and why we say so. What is important from this point of view is not so much 'what our values are', but rather 'how do we value?'. If this shift can take place in our educational practice, I believe, the debate is moved forward, perhaps beyond merely acknowledging and expressing feelings. In fact, I would like to contend with Heidegger that feelings entail a form of valuing; in our feelings we affectively register how we are situated in our world; in the 'colour' of our feelings, we become aware of the manner in which we relate to all the institutions and structures within which we live our lives: the family, the school, the community, society at large, our culture, our history, the bio-physical environment, the biosphere of which we are also part of.

I am not sure if Chadwick had this link between feelings, values and the bio-physical environment in mind when he suggested that environmental education starts with acknowledging, discussing, dealing and learning from the emotions that we experience. Focussing on the acts of valuing and how they are embedded in all the structures and 'circles' that sustain our lives, I believe, can help us to again link who we are and how we feel about things to the concrete and multilayered set of relationships that constitute our environment in the broadest sense of the word.

Concluding Remarks

In this paper I have drawn attention to the language that Chadwick has used when he spoke about sustainable development and values in his article. I have pointed out that his language resonates strongly with dominant notions of sustainable development and values, and that these dominant notions have a number of problems associated with them. I have also tried to show where one could start to look to overcome these problems, acknowledging that much still has to be done in this regard. The main thrust of my paper was to highlight that the language we use to articulate our environmental concerns and our responses to them is neither innocent nor neutral, but carries with it certain assumptions and implications that we need to foreground and critically scrutinise – at least if we want to do a good job in education, environmental education, environmental ethics or environmental action.

Notes on the Contributor

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Viewpoint

'The Gentle Art of Letting the Other Fellow Have Your Own Way'[1]: Viewpoints on a media narrative used to promote the proposed N2 toll road

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Abstract

This viewpoint paper is written in response to a South African National Roads Agency (SANRAL) advertorial published in various South African regional newspapers in February 2004. We highlight the importance of developing 'media literacy' – reading skills which enable the critical deconstruction of media texts. We explore, more specifically, the public relations strategies used by large corporations, and the media's role as disseminators of corporate marketing material. We also look at the relevance in identifying the language and discourse positioning the writer, photographer, reader and their choice representative medium.

Introduction

As media consumers we are exposed to ever increasing volumes of visual and non-visual information that compete for our attention. The regional and global dissemination of messages in a mass-mediated world makes it important to become evermore discerning readers of the messages that we willingly and unwillingly select and interpret. We need not only develop the skills to identify narratives that are embedded in media messages, but also to become aware of the different cultural constructions that are reflected in them. As Wigston (2001) points out, narratives are informed by the author's distinct and various purposes that emerge from and reflect specific economic, social and political contexts. In the same way, we are positioned with similar constructions that are particular to us as readers, and that inform our interpretations of messages in the media.

Our intention in this paper is to explore how the multi-layered public relations messages of a large corporation are constructed and communicated through the written and visual narratives in a media text. To do so, we use insights from media theory, notably the works of Hall (1997) and Richter (1998). We first examine the historical context, and then briefly review the relevant literature on media studies, and we also look at the construction of the advertorial and the language and discourse used in its production. Thirdly, we look at the politics of media narratives, and the different roles that are assumed by the participants involved.

The literature on public relations strategies reveals how the media can be used as a mouthpiece by large corporations – an example of this is the public relations strategy used by Nestlé in the 1970s, described in length by Richter (1998). We suggest that ever-increasing

critical engagement is required when evaluating media narratives, particularly in their role as carriers of marketing material. Our interest in this paper is to highlight how language and discourse are underpinned by specific cultural and social contexts, and to investigate their influences on how messages are communicated and interpreted (Hall, 1997:10), reflecting our educational interest, as many messages are communicated and interpreted in/through educational processes.

A lecture on reading media narratives during a recent departmental seminar inspired us to deconstruct an advertorial on the much publicised proposed N2 toll road through Pondoland in the Eastern Cape. This full page advertorial was placed by SANRAL. It was 'disguised' as editorial copy and appeared in several prominent South African daily newspapers, including the *Cape Times*, *The Natal Mercury*, *Pretoria News* and *The Star*, on 27 February, 2004. It purports to report objectively on the road agency's decision, based on 'informed' social, economic and ecological consideration, to build a toll road through Pondoland. This area has a high biodiversity sensitivity, and is an internationally recognised 'biological hotspot'. It is also located in one of South Africa's poorest provinces, the Eastern Cape, where local communities are in desperate need of economic development.

Historical Context

In order understand the text we need to explain its historical context. In the 1990s, the Department of Trade and Industry earmarked the Pondoland section of the Wild Coast as a spatial development node. Since then, there has been ongoing, contentious and often acrimonious debate and lobbying between the many different stakeholders about what type of development would be most appropriate to develop the area. The most recent arguments have centred around proposals for a toll road and the dune mining of titanium (WWF, 2003; Groenewald, 2004; McKenzie, 2004). In December 2003, the record of decision (ROD) for the construction of the road was finally approved. The Minister of Environmental Affairs and Tourism was required to uphold, amend or reject it. In view of the numerous appeals against the ROD, the minister appointed a committee to review the objections. Judging by the direction that the advertorial takes, we suggest that SANRAL quite deliberately undertook a nation-wide media campaign in early 2004 in order to canvass public approval for a project in which the company had considerable vested financial and business interests. The advertorial from the *Cape Times*, being reviewed here, forms part of this public relations initiative.

Public Relations Strategies and the SANRAL Advertorial

Advertorials are loosely defined as a combination of advert and editorial content, often used by large corporations to assert their point of view while subtly persuading the readership of their good intentions. Generally speaking, profit-driven corporations are required to constantly seek to enhance their operating environments and they achieve this by using the media to influence public opinion while appearing to fulfill certain social obligations (Richter, 1998:4). Oppositional pressure groups are unable to match the financial muscle with which corporations

market themselves and their products using the medium of newspapers. In her paper on Corporate PR Strategies, Richter cites an opinion on the role of public relations, made by the Mobil Oil Public Relations executive, 'The point [of Public Relations] is getting people to behave the way you hope they will behave by persuading them that it is ultimately in their interest to do so.' (Richter, 1998:2).

Apart from using the media to further their particular business interests, large corporations often seek to create dialogue between themselves and oppositional pressure groups as a way of steering clear of the typically combative interactions that normally occur between the two groups. Emotionally charged boycotts and protests are best avoided by corporations by convincing citizen groups that they have taken the right steps to 'create an image of socially-concerned business' (Richter, 1998:2). This means that when the corporations are held accountable for their actions in a public forum such as the media, they are well prepared and protest action is often either negated or rendered ineffectual.

Manipulative public relation tactics on the part of the corporation need to be examined carefully by individuals and citizen groups if they are to be effective resistors, whether participating in dialogue or not. In the advertorial in question, SANRAL claims that the inland route alignment of the road was established 'in discussion' with South African National Parks and the Wild Life and Environment Society of South Africa (WESSA). According to Cathy Kay, the Conservation Director of WESSA, this was not the case (Kay, 2004, pers. comm.). SANRAL does not want to be portrayed as confrontational, but those who have followed the debate over the past two years will know of the heated exchanges that have gone on between WESSA and the road planners.

Announcing a voluntary code of ethics is another PR strategy that Richter makes reference to (Richter, 1998:9). In the SANRAL advertorial, the CEO commented that the company could have gone ahead with the project before 1997 when environmental legislation was less rigorous but they chose not to because they 'value input from all stakeholders'. Of course it is the extent to which they 'value' and act on this input that matters the most.

Richter (1998:2) further states that as a public relations strategy, corporations often bolster their public image of corporate philanthropy by creating an image of being socially concerned and engaged. SANRAL claims that their '... good corporate citizenship extends far beyond the company's operations and includes reaching out with practical assistance into communities,... touching the lives of every citizen... The company values input from all stakeholders... and is proudly South African.' To appease the 'green fringe,' SANRAL notes that it is a 'corporate sponsor of Birdlife South Africa' and they state that they 'are planning a comprehensive environmental education programme at strategic points along our roads'.

The Content of the Advertorial

A small heading at the top of the newspaper page introduces the advertorial as a 'Special Survey' and then the reader is struck by the bold statement: 'N2, The Route of Least Disturbance.' Interspersed in the text and contributing to the formal layout of the page are four colour photographs. The central photograph is of a six-lane dual carriageway leading to a city in the

distance. Underneath it is a smaller photograph of a nursery with plants in black plastic bags – a projection of what will be done to accommodate the indigenous plants removed during the construction of the road. The explanatory caption states that, 'Both the Botanical garden and the proposed Pondoland Park will greatly increase tourism and consequent inflow of foreign exchange into the region.' A third photograph shows a wide, flat road passing through a eucalyptus plantation and connecting to the positive image of trees, bearing the caption, 'On the right road'. The fourth picture is of the CEO of SANRAL, Mr Nazir Alli (discussed later). (Due to copyright restrictions we are unable to publish the photographs, but readers are referred to the original advertorial published in February 2004.)

Language and Discourse

Using content analysis as a tool to interpret the meaning(s) of the messages we read, we need to recognise the variety of motivations that lie behind the diverse perspectives of writers, illustrators and photographers and their choice of medium. Obviously, a journalist writing for *Business Day*, for example, is highly unlikely to be working within the same discourse as a journalist writing for *Enviro-Teach*, or a dramatist representing a political theme in a theatre production. The various media are not only disseminating information within different business, environmental/educational, and political contexts and languages, but they also give meaning to their language using disparate approaches (Hall, 1997:5). In this light, the text must be viewed in terms of the context of the author, who the author is representing (in this instance the corporation), and the medium (regional newspapers) in which it is being made available for public consumption.

We are able to analyse the visual elements in a text using the similar tools of deconstruction as those used when analysing written narratives. According to Hall (1997), there are two separate components we rely upon when we make meaning of a narrative. Language acts as a vehicle, allowing meaning to be transmitted, and discourse considers the effects and consequences of the representation, relating to power, its influences on behaviour and the construction of identities. We consider both of these elements in our analysis of the written and visual texts found in the advertorial. The written narrative and the images complement each other to communicate not only the explicit message but also the discourse within which the advertorial is structured and framed. The inferred messages found in the photographs and accompanying text are analysed with reference to the corporation they are representing and the ideology it seeks to uphold, whether intentionally or implicitly.

Wells (1997) recognises photography's powerful ability to sell products and ideology, but the marketing strategy, she says, often does not recognise or acknowledge the contested production methods and processes that occur while making the product. This is problematic when, for instance, a perfume advertisement articulates passion and femininity as its ideology but, for obvious reasons, fails to mention the experiments performed on animals that may have occurred or the bad labour practices in which the company is embroiled, as it would not be helpful in selling their product (Wells, 1997:157).

SANRAL has marketed its proposed development carefully, using the same techniques. The photographs tell a convincing story of the heroism of SANRAL, but they fail to acknowledge

the latent social and environmental damage that will take place while they sell their ideology of a better life for everyone. A reader might interpret the photograph of the road running through the eucalyptus plantation as SANRAL's intention to develop forestry as a commercial venture. What the photographs fail to mention is the impact this alien, water-thirsty monocrop will have on the highly threatened Pondoland centre of endemism. The future of the people likely to be displaced by the proposed development is also deliberately negated by the careful selection of visual imagery.

The Public Face of SANRAL

One photograph in particular coherently sums up the way in which SANRAL is portrayed and marketed to the public. This is a photograph of the CEO of SANRAL and is the only human element visually represented in the advertorial. In the photograph, the CEO flatteringly has sunlight catching the side of his hair and he has a charming, trustworthy yet businesslike smile. He is introduced as Mr Nazir Alli, the CEO of the SA National Roads Agency Ltd, and he, and therefore corporation, is associated (explicitly and implicitly) with business as well as social prowess. With this introduction, how can one not take him seriously? This is the man chosen to represent SANRAL and at the risk of appearing cynical, we suggest that he may not have been given the same prominence had his skin been any lighter, or if his name didn't clear him as previously disadvantaged. This 'face' may be presented so that the public interprets these political signals and regards the corporation as politically legitimate, professional, reliable, trustworthy, open, honest and 'proudly South African'. Words as messengers and meaning as messages in the advertorial collaborate with the photographs and project a consolidated front which supports the public image of the corporation and appeals to the language and discourse of the readership of the particular medium chosen to carry them (Wells, 1997:157).

Reading 'With the Text'

In reading 'with the text,' we discovered that SANRAL has done meticulous research into the socio-economic needs of the people of Pondoland and the state of the environment. The advertorial suggests that the N2 toll road will provide the best possible solution to the development problems of the region and 'protect the poorest sector of our nation'. Claims that the road will support economic growth by providing employment, entrepreneurial opportunities and skills training and bring foreign exchange from eco-tourism are also made. The road, it is promised, will improve the present infrastructure, provide an efficient trade route and put an end to the present environmental degradation that results from the pressure of human settlement, overgrazing, soil erosion, firewood collection, poaching and illegal developments.

According to the advertorial, SANRAL has made a holistic and informed decision about the road after thorough and laborious preparatory research was conducted for nearly a decade. The company's vision supports the three pillars of sustainable development, seeking to link economic growth, social development and environmental preservation. SANRAL also claim to

have consulted all stakeholders, discussed and reached consensus with South African National Parks (SANPARKS) and WESSA over the routing of the road. Their overall appearance as a corporation is one of transparency, accountability and trustworthiness, having taken the trouble to inform a wide section of the South African public through the national print media. The messages suggest that SANRAL are professionals who have done thorough research, that they are authoritative and that they have sufficient power in knowledge and capital to uplift and empower communities.

Reading 'Against the Text'

We begin to discern what Richter expresses as 'PR camouflage and deception' (1998), when we look at the advertorial more critically. She describes laundering as a frequently employed technique to reproduce PR material as factual articles in the media. While the editorial coverage in the advertorial was indistinguishable from its advertising content, nowhere is there any indication that this is an advertisement. This is a breach of the advertising standards code but might easily go unnoticed by less discerning and critical readers. One could question how this 'slipped through', and was not reported to the Advertising Standards Authority?

In order to interpret narratives, Todorov describes how they are constructed through a linear progression from an equilibrium state, through a disruption and disequilibrium to a new state of equilibrium (Branston & Stafford, 1999). Propp (in Branston & Stafford, 1999) developed a different narrative model using a set of standard character roles including a hero, princess, villain, and magical agent. These models have been used by Kozloff (1992, cited in Wigston, 2001) to analyse the structure of narratives in advertisements and other forms of mass media. Using these descriptors to analyse the SANRAL advertorial, we began to unravel interesting and otherwise unspoken components in the text. According to Todorov, the original social harmony in Pondoland, the halcyon days when people and nature lived peacefully side-by-side, was disrupted by poverty and environmental degradation. The article suggests that SANRAL, and its CEO Nazir Alli, is Propp's proudly South African 'hero', on a quest to save Pondoland, the Cinderella 'princess.' The 'magical agent' which will restore the equilibrium, is sustainable development, which SANRAL claims will be brought about through the construction of the N2 toll road (Lacey, 2000, cited in Wigston, 2001). Propp's 'villains' are the unidentified critics who have questioned SANRAL's motives and who have argued against the road.

Representing Affected Communities

The critics (villains) of the proposed SANRAL development, and therefore of the advertorial, are portrayed as pessimists and *nay sayers* because of their cautionary standpoint. Because the advertorials were so widely distributed in several regional newspapers, their effects on the public are far more profound than a few letters of protest from citizen groups, dissenting voices or unrepresented communities. Clearly, we have come to depend heavily on the media, especially television and the print media, to keep us is touch with global, regional and local events. We do this to such an extent that we rely on remote technology for weather forecasts to

inform us of how hot or cold it is going to be, overlooking our own experience of the local weather. According to Peters (1997), it is through exposure to mass media and the global transmission of information that we simultaneously experience the local and the global. How we experience the local is thus often defined by global circulation of information through mass media. Although some of the benefits of this global diffusion of news are self evident, it also affects and sets limits on the way that the reading and viewing public observe the world. In this study, this pertains to the proposed development of the toll road. The widely dispersed readership may be swayed more by the influential article and the powerful corporation that it represents than by the muted or even unheard opinions and experiences of the people living in the area where the development is to take place (Peters, in Gupta *et al.*, 1997).

By 'denying' the communities directly involved and affected their voice(s), their participation is undermined by the authoritative corporation. The discourse embedded in the narrative of the advertorial lies in its readability, appeal and interpretation by the middle class newspaper-reading public to which it is directed. In this way, it not only undermines the voices of the affected people living in Pondoland, and the potency of their participation, but it also excludes them (through lack of access) from understanding how they are being represented and identified as stakeholders. The advertorial subverts the needs of the rural communities by suggesting that the development will be beneficial and uplifting (based on information gathered from 'experts'), it denies the communities self-representation and leaves communities 'spoken for' and disempowered. From the selection of regional newspapers which carried the advertorial, it is evident that the message is directed at middle class, urban South Africans and not the rural poor. The readership appears to have been carefully chosen through choice of publication, with a discourse which appeals to middle class consumers who are versed in social and environmental issues.

Conclusion

In our analysis of this media narrative, we looked at the author of the text (SANRAL), the reader for whom the message was intended (middle class public), and the socio-cultural influences on the construction of visual and non-visual modes of communication. We considered the way in which the media may be used as a mouthpiece for corporate PR and how this particular advertorial represents the public face of SANRAL as a caring and responsible corporate. We have also discussed the impact that exclusive exposure through the publishing process has on the objectified, passive communities that are represented in it.

On the surface, the discourse in the text reviewed was open and accessible but, through application of various narrative and discourse analysis techniques, we have uncovered some 'evidence' of SANRAL's hidden messages and corporate PR, self-congratulatory and politically correct discourse. At a time when South Africa is committed to economic 'progress' and 'growth' at almost any cost, we need to be constantly wary of projects that are promoted in the media under the guise of sustainable development. Closer and critical inspection may reveal that these projects represent veiled corporate PR attempts at 'letting the other fellow have your own way.'

Notes on the Contributors

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Endnote

1 Title phrase by Michael Kunczik, communication scientist (Richter 1998:3).

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Review Essay
Landscapes/Voices In/Of Transition/Transformation

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Krog, Antjie. (2003). *A Change of Tongue*. Johannesburg: Random House.
Pieterse, Edgar, & Meintjies, Frank (Eds). (2004). *Voices of the Transition: The Politics, Poetics and Practices of Social Change in South Africa*. Sandown: Heinemann.

As an educational researcher who frequently privileges narrative and fiction I was pleased to learn that Sello Duiker's (2000) acclaimed first novel, *Thirteen Cents*, was among the key inspirations for *Voices of the Transition* and for shaping the deliberative processes through which it was produced. An extract from Duiker's novel, presented as Chapter 10 of *Voices of the Transition*, begins as follows:

> My name is Azure. *Ah-zoo-ray*. That's how you say it. My mother gave me that name. It's the only thing I have left from her ...
>
> I live alone. The streets of Sea Point are my home. But I'm almost a man; I'm nearly thirteen years old. That means I know where to find food that hasn't seen too many ants and flies in Camps Bay or Clifton. That is if there aren't any policemen patrolling the streets. They don't like us much ...
>
> I lost my parents three years ago. Papa was bad with money and got Mama in trouble. The day they killed them I was away at school. I came back to our shack to find them in a pool of blood. That was three years ago. That was the last time I went to school. (p.74)

Annette Gough and I walked and drove through the streets of Sea Point for several days in August 2004 but we saw and heard little of the Cape Town that Azure inhabits. Our temporary home was the secure fortress of The Peninsular All Suite Hotel, poised in postcard perfection between mountain and sea. Our privilege protected us from the hunger, dependence and desperation that street kids like Azure endure every day, and we were largely insulated from the people (be they pimps, paedophiles or the police) who determine at least some of the conditions under which such young people struggle to survive. Pieterse and Meintjies acknowledge a similar insulation from these circumstances in their Preface:

> The story of Azure's tormented young life and brave endurance rang home with such ferocity that we immediately knew that much of what we do and talk about in the development sector in South Africa is in need of critique and replacement. The depth, nuance, relentlessness and minimalist beauty of the novel suggested to us that the author –

> probably oblivious to the specialist discourses and institutions of development – had a far better grasp of what the challenges are in South Africa compared to the army of professional development protagonists in the state and civil society organisations. There was clearly a need to bring such intimate perceptiveness and compassion into dialogue with the stiff, procedural practices of the formal development sector. (p.xiii)

I would prefer to say that Duiker has a *different* (not necessarily 'better') grasp on some challenges of South Africa's transition than, say, Crain Soudien, whose Chapter 8, 'Fighting for a normal life: becoming a young adult in the new South Africa', offers a very useful supplement to Azure's story. Soudien is concerned with understanding the socio-economic structures and forces that produce the circumstances that Azure and many others endure, and his meta-analysis of a range of surveys, statistics and profiles clearly supports his contention that 'growing up in South Africa is, for most, a journey of a dream denied, if not betrayed. Inspired by the vision of the new South Africa, the hope and faith of youth are tested each day as they and their parents struggle to make ends meet'.

Graeme Gotz's Chapter 9, 'Velaphi's dreams', immediately follows Soudien's academic essay and precedes the excerpts from Duiker's novel and, using a mixture of textual genres and styles, witnesses a particular young man's troubled encounters with the criminal justice system between 1996 and 2003. Gotz produces a biographical collage of first and third person accounts of Velaphi's experiences, together with excerpts from a variety of other contemporary sources, including an excerpt from President Thabo Mbeki's 2003 State of the Nation Address, the City of Johannesburg Metropolitan Municipality's *Joburg 2030 – Vision*, excerpts from legislation, a well-intentioned but patronising reference letter from an office-worker with whom Velaphi becomes acquainted, procedural notes on the activities of the South African Human Rights Commission and the establishment of an Integrated Justice System, etc. Taken together, these three chapters demonstrate that, notwithstanding the numerous post-1994 White Papers, change management exercises and performance targets, the brutal legacies of apartheid-era governmentality, continue to haunt the everyday lives of those who are poor and black.

Like much else in *Voices of the Transition*, the accumulated effects of these three chapters are much greater than the sum of their parts. Albie Sachs alludes to this quality of the book in his Foreword:

> Let the reader be warned. This is not a 'respectable' book. If it was, it would deal solemnly with topics like the development of under-development, or the over-development of development, the variants are limitless. The pages would be filled with intellectual barometers and thermometers. Data would be captured, measured, analysed and evaluated. Master theories would be expounded, and accolades awarded or denunciations delivered. Ideology would be all, or nothing.
>
> Instead, we have a book that glories in unpredictability and open-endedness. (p.vii)

Voices of the Transition is multi-dimensional, diverse and divergent: its 35 prose chapters include autobiographical vignettes, short stories, academic analysis and criticism, polemical journalism and

interviews, interspersed with poetry and photographic essays. This mixing of genres reinforces one among many of the book's powerful messages: that South Africa's political transition cannot (to repeat Sachs's words) 'be captured, measured, analysed and evaluated' by any single metanarrative or master theory but, rather, that a multiplicity of understandings and meanings of this complex social change can be constructed, reconstructed and deconstructed through a continual and open-ended process of juxtaposing snapshots, stories, experiences, perspectives and perceptions. For environmental educators in southern Africa, this is particularly apparent in the section that deals with the politics of state-craft and developmentalism, where Saliem Fakir's Chapter 13, 'Rejoicing or bemoaning the South African transition? The case of environment and conservation', immediately follows three poems by Sandile Dikene. There is both joy and gentle irony in the last of these, 'Love poem for my country' (p.111), as the following stanza demonstrates:

> My country
> is for health and wealth
> see the blue of the sea
> and beneath
> the jewels of fish
> deep under the bowels of soil
> hear
> the golden voice
> of a miner's praise
> for my country

On the very next page, Dikene's 'Love poem' seems to be contradicted by Fakir's blunt assertion that 'you cannot be romantic about [the South African transition]' (p.112), especially in regard to issues of environmental justice, rights-based approaches to development, and the conflicts and/or synergies between conservation and development:

> One of the biggest challenges... is the use of environmental provisions by rich and in most cases white people to block low cost housing development, have squatters removed, or simply create buffers and conservancies to increase property prices and impose security cordons in certain areas under the pretext of environmental protection. Environment is a convenient deception: we are allured by its 'nice feel', but allow our innocence to be abused by dark intents in our society. There is a double layer of environmentalism that is beginning to unfold in South Africa, laced with racial overtones and new forms of economic exclusion. (pp.114–5)

I interpret Dikene's 'Love poem' as an alternative way of expressing South Africa's 'double layer' of alluring landscapes and 'dark intents' and it thus complements rather than contradicts Fakir's analysis. Fakir also provides a particularly astute discussion of the ways in which globalisation and South Africa's incorporation into the international community have influenced South African environmental movements. He argues that labelling South Africa's

'compromise with capital' as adopting a neoliberal agenda is 'too superficial, dismissive and unsophisticated in being able to provide an understanding of how domestic and international policies and relations mutually reinforce each other' (p.116). A few pages previously, another of Dikene's poems, 'Way back home' (p.110), provides a humorous counterpoint to Fakir's argument:

> how much of a black comedy, really,
> is Africa, to the unity of Nations?
> How satisfying are potatoes as a relief measure
> dished out from the gun greased hands...
>
> Maybe
> if we do a tango in Lederhosen
> and karate seven times a day
> the G-seven will give us G-strings
> to enter Hollywood

The editors argue that the 'undertow' of *Voices of the Transition* is 'a passion for the advancement of vibrant democratic politics within civil society and the state' wherein democracy is understood 'as a passionate, pluralist and contested engagement to interpret the everyday meanings and applications of values such as social justice, cosmopolitanism and sustainability' (p.4). In aiming to enrich democracy though vigorous and rigorous debate (and, if necessary, dissent), *Voices of the Transition* shares an intellectual agenda with Yusef Waghid and Lesley Le Grange's (2004) edited collection, *Imaginaries on Democratic Education and Change*, although each book anticipates somewhat different audiences, with the former explicitly addressing development professionals and the latter speaking chiefly to educators in universities and schools. Nevertheless, the overlapping professional interests of those who work in the development, environment and education sectors means that *Voices of the Transition* is a rich resource for environmental educators.

During 2003 Annette Gough and I were invited to reflect on the changing character of environmental education research in southern Africa as we had experienced it since 1998. Our response was to offer multiple readings framed by postcolonialism, changing epistemologies and methodologies, contexts of transformation and tension, the influence of international organisations such as the United Nations and its instrumentalities, and concerns about human rights and accountability. Our conclusion affirmed the postcolonialist trajectories of environmental education research in southern Africa and speculated on the distinctive possibilities that recovering *ubuntu* might offer to researchers in this region (see Gough & Gough, 2004). If we had read *Voices of the Transition* before writing our essay, I suspect that we might have added at least two other critical frames, each of which is signalled by discrete sub-sections of the book, namely, 'The unruly phenomenology of memory and identity' and 'Shifting ideologies of developmentalism'.

Voices of the Transition provides ample evidence that changes in environments – be they in landscapes or cityscapes – are inseparable not only from ideological and institutional changes

but also from personal transformations. Many contributors foreground the emotional investments they and others have made in the interventions that produce change at both micro and macro levels. For example, in Chapter 20, 'Johannesburg: on being a native at home and abroad', John Matshikiza not only recognises the city's capacity to be appropriated as a metaphor for everything that is bad and/or good about South Africa, but also (as the editors point out) demonstrates its generativity as a point of departure for his searching reflections 'on identity, movement, African-ness, home, exile and everything in between... reminding the reader that this transition was not hatched yesterday, and that the transition does not belong to South Africans, but rather to the African continent and the world at large' (p.8). Matshikiza's chapter resonates well with my own feelings about the transition. As a non-native, non-resident who nevertheless feels increasingly 'at home' in South Africa, my engagement with political transformation in the region since 1998 has not primarily been altruistic – indeed I have explicitly rejected been positioned as a 'helper' (see Gough, 1998) – but, rather, is borne out of what Nancy Fraser (1993) calls an 'inclusive, universalist, global view of solidarity as shared responsibility... rooted in the fact that we inhabit an increasingly global public space of discourse and representation' (p.22). In other words, our interdependence within a common global knowledge economy provides a moral imperative for representing and performing educational research as a transnational practice (see also Gough, 2004).

Reconstructions of memory and identity are at the heart of Chapter 21, 'Insider reflections on the Truth and Reconciliation Commission', by former commissioner Russell Ally, but are amplified in much more intimate ways by Kopano Ratele in Chapter 22, 'Recovering the ordinary'. Ratele offers a deeply moving account of the impact of South Africa's transition on black men and their masculinity, revealing the fright and fear of black men of his own generation as they struggle to reinvent themselves in a context of endemic gendered violence. By way of contrast, Adam Haupt reveals a lighter side of transition in Chapter 25, 'Hip-hop in the age of empire: Cape Flats style', a tribute to the vitality and enthusiasm with which young people are able to generate distinctively local soundscapes from global sound waves. In Chapter 24, 'Shifting soundscapes and youth dance cultures', S'busiso Nxumalo provides a similarly upbeat account of the broader cultural significance of the emergence of kwaito – 'a kind of mid-tempo house style (around 100 to 120bpm) with an African twist' (p. 207) – as a symbolic reclamation of black identity following the release of Nelson Mandela. But this chapter has another twist: Nxumalo's coauthor, Dominique Wooldridge interweaves his kwaito story with a provocative account of the parallel development of white urban dance music, which she interprets as burrowing deeper into the suburbs as an expression of a middle-class disconnection with urban (i.e. black) cores.

If we (Gough & Gough, 2004) had added memory and identity to the critical frames with which we analysed the changing character of environmental education research in southern Africa since 1998 we would probably have had to conclude that not much has changed. Few environmental education researchers appear to have attempted the admittedly difficult task of confronting the traumatic effects of apartheid on the reconstruction of memory and identity and what this means for their work, although Le Grange (2004) has taken some welcome initial steps in this direction in his recent essay on racialised embodiment and environmental education. The reconstruction of popular media/culture in post-apartheid South Africa, and its

implications for the identities of young learners (see also Nadine Dolby, 2001), is similarly under-researched in environmental education.

With the hindsight enabled by reading *Voices of the Transition*, the second additional frame we might have used in our analysis is what the editors call 'shifting ideologies of developmentalism', especially in relation to the reshaping and remaking of South Africa's segregated and fragmented cities: 'South Africa has irredeemably become urban during the transition, a pattern that will continue into the future, despite the overwhelming rural bias that continues to dominate much of the political sentiment amongst the political elite' (p.9). We wonder if there might still be a subtle rural bias in environmental education/research that remains as a residue of its divided history? Saliem Fakir's chapter alludes to this possibility in his reading of the range of recent transitions in the South African environmental movement. At one end of the spectrum, the democratic political transition allowed social and environmental justice activists to expand their reach and influence, with many of them being involved in the initial crafting of the Reconstruction and Development Program (RDP). Their concerns were both rural and urban, seeking to deracialise environmentalism and resolve environmental problems produced by apartheid policies, including the inferior infrastructure, services and natural resources available in black neighbourhoods and settlements.

> On the other end of the spectrum, we have the traditional conservation and wildlife groups who steeped themselves in a protectionist model of environmentalism. It was always nature against people... In a sense, people became an endangered species as a result, because apartheid provided the rules and legitimised the exclusion and alienation of people from land and the natural resources that came with it. Perhaps South Africa was unique in that this classic form of environmentalism found succour and immersion in South Africa's racialised superstructure. It fed off it as the seclusion of land for the purposes of conservation would not have been this extensive had it not been for apartheid.
>
> The majority of this group did not transform organically, but read the political landscape, and voluntarily chose to retrofit their discourse with that of the (new) dominant political discourse. All of a sudden, a group that had a fetish for animals and the wild were suddenly people-loving and showing a sensitivity towards social justice issues. Today they speak environment in development terms. (p.114)

The most eloquent contributions to rethinking urban development in *Voices of the Transition* are two photo essays. Cedric Nunn's 'Yeoville' richly illustrates the creativity of the ordinary people who are shaping the emergent cityscape of this Johannesburg suburb as the class (and racial) structure changes. Seopedi Ruth Motau's photo essay, 'Making an RDP house a home', is both a testimony to resilience and an invitation to rethink 'development'. As Motau writes in her brief introduction to her photo essay:

> The waves of pastel coloured RDP settlements that clutch the outskirts of South African towns and cities also constitute the most blatant manifestation of continuities with the past because they intensify spatial segregation and inequality. In this vexing paradox are

> the people caught in the vicissitudes of development; the people who have to make a life, nurture a family, make their way to jobs (if these exist), build new social networks and become part of a community – in other words – make a home on the dusty 'clean slates' that are RDP housing settlements. (p.267)

Other excellent contributions to rethinking the ideologies, institutions and practices of development include Jenny Robinson's Chapter 29, 'Communities to come: remaking cities in a new South Africa' and Zarina Patel's Chapter 30, 'Environmental values and the building of sustainable communities'. More intriguing is Eve Annecke and Mark Swilling's Chapter 31, 'An experiment in living and learning in the Boland', a case study of transformative politics – and personal transformation – in the heartland of Afrikaner conservatism. Annecke and Swilling tell us what is ultimately a success story about a Section 21 (non-profit) company, Lynedoch Development, set up in 1999. The local community leaders and the authors (both of whom are academics and development activists) constituted a board of management that was 'inspired by the possibility of building an inclusive living and learning community that would demonstrate in practice what it means to live in sustainable ways' (p.296). For me, the most fascinating aspect of their case study was their emphasis on storytelling, with subheadings such as 'Storytellers and development workers', 'Telling the story' and 'Making spaces for stories' providing the structural framework for their account. Their conclusion, 'From a story to many stories', locates their optimism about the future of innovative and creative development work in 'our ability to tell and hear the stories of our changing times':

> In his novel *Astonishing the Gods*, Ben Okri tells the story of a man who thought he was invisible because all the stories around him were not about him. An extraordinary and surprising South Africa is becoming increasingly visible as the vast array of local stories are told. The challenge will be to defend the space for these stories, or live with the consequences of codifying a single official story. For us, building the story of Lynedoch has been an experience of becoming visible not because others believed our story, but because our story has created the space in which other stories can emerge. (p.302)

Creating a space in which other stories can emerge is also a central theme of Antjie Krog's *A Change of Tongue*. For Krog, 'a change of tongue' is a literal truth: she published ten volumes of Afrikaans poetry (and two children's books, also in Afrikaans), before moving into journalism. Her experiences in reporting on the South African Truth and Reconciliation Commission for SABC radio and for the *Mail & Guardian* provided the raw material for her English prose debut, the multiple award-winning *Country of My Skull* (1998). *A Change of Tongue*, also written in English, explores issues of identity, belonging, change and personal transformation in South Africa, through personal narratives of individuals, families, groups, poets, officials and politicians. Krog shapes these stories – many of which are moving and/or amusing memoirs of (and meditations on) food, language, landscape and small town life – in ways that generate possibilities for other ways of being (past, present and future) within a country and a continent, as South Africans adapt to their new democracy.

Although Krog is the sole author of *A Change of Tongue*, it is as much about multiplicity – the innumerable ways in which we can speak and write the politics, poetics and practices of social change in South Africa – as is *Voices of the Transition*. But Krog's voice is more personal, more individual, and she foregrounds the embodiment of voice, identity and landscape to a much greater extent than any of the contributors to the latter book. This is clearly signalled in *Country of My Skull*, which invites readers to acknowledge the interconnections between the author's physical being and her country, the country of *her* skull. Yet an alternative reading of this title is that it invites readers to doubt her claim to an embodied identification with the country of her birth. The skull is the material site of human memory, which suggests that the country of her skull is internally created, an imagined (even imaginary) country. The text itself supports this reading, with its recurring theme of Krog's sense of alienation from the country of her family and childhood, and her fear that she may not be welcome in the 'New South Africa' of her imagination. As Carli Coetzee (2001) writes, this sense of alienation is further emphasised by Krog's choice of the cover image for the South African edition, a photograph by George Hallet of a landscape empty of any human presence:

> No built structures are visible; in this sense, it is an image unlike those heroic landscapes by Pierneef, the painter associated most closely with Afrikaner nationalism, in which beams of heavenly light bathe the bright white homestead. Yet the landscape devoid of human presence is not devoid of ideological content, as has often been remarked. (p.687)

Thus, the landscape on the cover of Krog's book can be interpreted as a visual equivalent of what J.M. Coetzee (1988) calls *White Writing*, a literature of disembodied landscapes that reflects the concerns of a people no longer European, but not yet African, and that fails to imagine a relationship with South Africa's indigenous peoples: 'Official historiography long told a tale of how until the nineteenth century of the Christian era the interior of what we now call South Africa was unpeopled. The poetry of empty space may one day be accused of furthering the same fiction' (p.177).

But Carli Coetzee (2001) argues that in Krog's work this landscape comes to represent something new, different, and perhaps more ambitious in white writing:

> Krog's country of her skull is a landscape from which she feels herself barred, as a white South African, on account of her whiteness, on account of the name of her father. It is a landscape familiar from her childhood, the landscape of the fathers and the brothers; but she can never again enter it. And at the same time it is a landscape into which she wishes to be invited by her fellow South Africans. But the figure in the landscape is distinctly different from [J.M.] Coetzee's lone figure unable to imagine another presence. In Krog's work, there is a self-conscious desire to address an audience that includes black South Africans... [But] the addressee of the text is not stable. At times it seems clear that the text invokes fellow-Afrikaners as readers, precisely those whom Krog wishes to convince of our/their guilt and complicity in South Africa's injustices, as recorded by the proceedings of the Truth and Reconciliation Commission. At other times, the text is explicitly

> addressed to those whom Krog invests with the power to allow her into the country of her imagination and heart. (p.686)

This point about whom the book addresses is borne out by its conclusion. Throughout *Country of My Skull*, Krog emphatically asserts (and frequently reasserts) that she is *not* writing poetry. Nevertheless, it concludes (on p.365) with a poem written (significantly, given her prominence as an Afrikaans poet) in English:

> I am changed forever. I want to say
> forgive me
> forgive me
> forgive me
>
> You whom I have wronged, please
> take me
>
> with you.

There are a number of passages in *Country of My Skull* that provide clues to Krog's interest in the embodiment of voice in tongue. For example:

> The word 'truth' makes me uncomfortable.
>
> The word 'truth' still trips my tongue.
>
> 'Your voice tightens up when you approach the word "truth,"' the technical assistant says, irritated. 'Repeat it twenty times so that you become familiar with it. *Truth is mos jou job*!' ('Truth is your job, after all!')
>
> I hesitate at the word; I am not used to using it. Even when I type it, it ends up as either *turth* or *trth*. I have never bedded that word in a poem. I prefer the word 'lie.' The moment the lie raises its head, I smell blood. Because it is there... where the truth is closest. (p.50)

Krog amplifies on her hesitation in a recent interview with *The Guardian*'s Rory Carroll (2004) who quotes her as saying: 'I'm a poet. I distrust anything that starts with a capital letter and ends with a full stop because people don't think in full, clear sentences'.

Many reviews of *Country of My Skull* praise it for allowing the 'voices of the voiceless' to be heard, which is hardly surprising given that variations on the term 'voicelessness' have become veritable clichés in discussions of South African transition. But, as documentary movies such as Lee Hirsch's (2002) *Amandla! A Revolution In Four-Part Harmony*, amply demonstrate, black South Africans have always had a voice: what they lacked were sympathetic ears. Throughout *Country of My Skull* Krog rarely yields to the temptation of imagining herself as the heroic white journalist giving voice to the voiceless. Rather, she looks for ways to escape (or be released) from a prison walled by her name, race, lineage and tongue, and to find a voice in which she might be audible. Thus, for example, she recalls moments in which she sensed her

exclusion from the collective 'you whom I have wronged':

> The proceedings are concluded with the anthem. I stand, caught unawares by the Sesotho version and the knowledge that I am white, that I have to reacquaint myself with this land, that my language carries violence as a voice, that I can do nothing about it, that after so many years I still feel uneasy with what is mine, with what is me. (p.285)

But Krog wrote her Afrikaans poetry while she was working in a black teachers college and she speaks some Sesotho, which allows her to experience a moment of inclusion:

> The woman next to me looks surprised when I sing the Free State version of 'Nkosi'. She smiles, holds her head close to mine and shifts to the alto part. The song leader opens the melody to us. The sopranos envelop, the bass voices support... And I wade into song – in a language that is not mine, in a tongue I do not know. It is fragrant inside the song, and among the keynotes of sorrow and suffering there are soft silences where we who belong to this landscape, all of us, can come to rest. (pp.285–6)

A Change of Tongue narrates Krog's quest to find a voice – a tongue – within a particular community and a particular language. When asked in a recent interview about her choice of the book's title, Krog's (2003) response was that 'it deals with the fish on the cover that is a sole'. She explains the links between skull, tongue and sole (and perhaps even the obvious homonym of the latter – soul) in the context of elucidating the meaning of 'transformation'. Her explanation includes the following unsourced quotation from an email sent to her by Professor Guy Smith:

> The chief characteristic of flatfishes like the sole is that one flank really functions as the underside of the fish... The juvenile fish are built perfectly normally and have to go through certain kinds of *transformation* and *metamorphosis* [my emphasis[1]] before the function of the flank is determined. At the same time this is happening, other forms of morphological asymmetry take place. The eye of the underside migrates to the other flank, which will now be functioning as the upper side. The mouth becomes oblique, the nasal and gill openings are removed to a different position, various skull bones develop asymmetrically, and on the upper side a dark pigmentation develops. (pp.128–9)

As if to emphasise the parallels with South Africa's transition, Krog reiterates: 'The mouth becomes oblique, the skull changes, the upper side turns dark' (p.129). She reinterprets and extends these metaphorical connections in the interview (Krog, 2003):

> The sole is born upright, and then to survive predators it has to go down to the bottom, and then its one side becomes the down side and the other side has to colour. Then the eye also moves over to the other side, the mouth changes, the tongue changes, and then the bone structure of the head changes, all in order to survive. So it's very much a change of sound, a change of speaking, a change of watching, seeing, listening, a change of

> thinking, that all of us actually have to go through. We have to sound different, you have to translate each other's texts and thoughts, so that we can get a communal text to which everybody can relate. We don't have that at this stage.

My first impressions of *A Change of Tongue* were that it seemed to be the print equivalent of thinking out loud, a transcript of Krog's commentary on her own progress towards generating 'a communal text' (or at least a communal textuality). But I had second thoughts when I began to see resemblances between her text and what have been known since medieval and Renaissance times as 'commonplace books', bound volumes of blank pages that we are now more likely to use as scrapbooks. As Barbara Benedict (1996) explains, commonplace books are 'collections of sayings or verses transcribed from many sources into one text. Like printed anthologies, these collect and condense literature for private or classroom use, serving as cultural cribs and personal libraries' (p.1):

> Commonplace books sanction the selection of passages made significant by personal experience and conscience. Many commonplace passages urge contentment and console the reader on the imminence of death, while also containing traces that indicate the particular character of the possessor...
>
> While reorganizing printed literature to meet personal interests, however, seventeenth-century commonplace books also reflect its influence in defining personal morality even as they invite individual interpretation of textual meaning. (pp.10–11)

Although some parts of *A Change of Tongue* resemble contemporary journalism (Chapter 1 is a lively account of an interschool athletics meeting), others have the characteristics of commonplace books that Benedict outlines above. For example, there are numerous 'sayings or verses transcribed from many sources', including English translations of Krog's own early Afrikaans poetry and prose (such as pieces written for a school magazine), her mother's published short stories and humorous vignettes, emails from relatives and other acquaintances, etc. Krog makes it clear that a number of passages have been 'made significant by personal experience and conscience' and that they contain 'traces that indicate the particular character of the possessor'. She makes it equally clear that she has reorganised her textual materials 'to meet personal interests' and in many instances explains their 'influence in defining [her] personal morality'; she also demonstrates how her selections 'invite [her] individual interpretation of [their] textual meaning'. This is particularly evident in the chapter that recalls her discovery, in her early teens, that her mother writes humorous sketches for a magazine under her maiden name. Krog presents the transcription of her mother's (translated) account of the family's disastrous vacation in Cape Town some years previously in short sections interspersed with her recollections of how she initially responded to the story (including an angry confrontation with her mother about its fictional elements). The layout and design of the text at this point deliberately resembles a scrapbook. Sections of her mother's story are set in a smaller font, indented, and bracketed at upper left and lower right by a graphic symbol that recalls a photo corner mount.

One difficulty with commonplace books and scrapbooks is that they are composed principally to meet the personal needs and interests of their authors, and their mass production presumes that many readers will find similar pleasures within them. In Krog's case, as an already celebrated author, this may be a reasonable presumption. However, I was frustrated by some aspects of Krog's style, especially her disregard for the citation of sources. For example, Krog recalls an argument with a former colleague who, in the course of their debate, quotes from a book by Njabulo Ndebele (who, incidentally, is also a contributor to *Voices of the Transition*). It is a powerful passage, and I would have very much liked Krog to divulge its source. Such quibbles aside, I have few doubts that sharing the commonplaces of Krog's South Africa will richly reward the majority of her readers.

Finally, reading *Country of My Skull* and *A Change of Tongue* in close succession raises questions for me about the possible significance of the shift in narrative genres they represent. In *The Book of Memory: A Study of Memory in Medieval Culture*, Mary Carruthers (1990) demonstrates how the illumination and calligraphy of mediaeval manuscripts were parts of memory systems. She argues that the medieval mind was memorial but that the contemporary Western mind is documentary. In memorial culture the mind was stocked with numerous sayings and stories and ideas clustered around various subjects that were absorbed deeply by memorisation and that then informed the production of images and thoughts. In each person these grew more from the conscious and unconscious workings of his or her own mind rather than from external authority, whether that be via empirical observation or an authoritative text. Carruthers suggests that text for us has become something like empirical observation, to be certified and verified by the science of text editing. But before the development of empirical ways of thinking, books stored temporarily the material that went into the permanent memory, whereas now memory stores temporarily what goes into the permanent written record. I suggest that by following her documentary text, *Country of My Skull*, with a commonplace book – a characteristic genre of memorial culture – Krog implicitly casts doubt on any text (including her own) that claims to document South Africa's transition authoritatively. In *A Change of Tongue* Krog performs the transformation of her memorial mind, and thereby sets an example that many other knowledge workers – including southern African environmental education researchers – might find it generative to follow.

Endnote

1 That is, Smith's emphasis.

Notes on the Reviewer

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Book Review
The Social Life of Stories: Narrative and Knowledge in the Yukon Territory *by Julie Cruikshank*

Jane Burt

Cruikshank, Julie. 1998. *The Social Life of Stories: Narrative and Knowledge in the Yukon Territory*. Columbia: UBC Press.

Once upon a time there was a woman called Julie Cruikshank who decided to document the stories of three other women. These other women came from a different tribe from her although they lived in the same area. She decided to document their stories because the stories they told were so interesting and sometimes so different to the stories that she was used to hearing at the university. She realised that the stories that came out of the university (and other story creating houses like the media and business) were only one kind of story about the same place (the Yukon) and the same time (the history of the Yukon). She felt that these women's stories were important and that other people in the university should hear them too. She also realised that these stories influenced the way in which the three women saw the world just as the stories she told influenced the way she saw the world. This had far reaching implications for the story that everyone was trying to tell together in the Yukon, and even in the world. A story that used words like democracy and equality and whose focus was to address imbalances of power and unequal access to choice and the natural resources that are used to keep us alive.

She decided to document these stories for reasons that are familiar to similar story documenters in South Africa. In South Africa we also have many different people living in the same area and many, many different stories. Because of our history, which wasn't very nice as some people thought they were better than other people and tried to pretend as if they were not human, lots of very good stories do not have much power or are not listened to in places where powerful decisions are made. So people like Julie Cruikshank are documenting stories for various reasons: to re-capture an alternative history which includes people ('indigenous' or 'first nation' people) that were in the past left out of the history books, to understand how these people women have experienced the tumultuous changes of the last century, to access information in the stories on environmental factors and share these with scientist storytellers and document the stories of a culture that is rapidly being influenced and changed by a globally dominant culture. Julie spent 17 years as a documenter of stories for all the above reasons. In the process of doing this she has learnt that stories are more than just interesting events that could have some important information in them. She has learnt that stories are alive and living in people and in the social space into which they are created. They do not die if they are removed

from this space but they are not as whole as they in the physical and social space in which they were created. This led to Julie re-thinking the role of stories in the social life of the women she had grown to know.

Julie realised that stories are stories because of other stories. When she started documenting the three women's life stories, the women kept sidetracking and telling her stories of cultural and cosmological significance. She realised that this was an important part of the women telling her their life stories. She needed to understand the women's worldview as it existed in these stories before she would be able to understand the women's personal life stories.

The story is not a stable entity but a living aspect of the storyteller and the audience that listen to the tale. Unless we pay attention to why a particular story is selected or told we will understand very little of its meaning. The art of a storyteller is not only in remembering the story but knowing how to use it appropriately. The women that Julie worked with told the same stories in many different circumstances with different aims in mind. Sometimes they were told in reference to past history, sometimes in relation to a personal story or a claim on a particular kind of identity, belonging to a particular grouping of people for instance, and sometimes the stories were told as advice for the future. Understanding the meaning of a story depends on the situation as well as your understanding of the context out of which the story has come, which will always influence its meaning.

Julie reflects that because stories are not fixed narratives they are often used to dismantle boundaries between different belief systems or what people in the university story houses call 'ways of knowing'. Although stories are culturally specific (and you need to understand this in context if you are to understand the stories) they are, within cultural spaces, tools for dealing with a growing globalising society characterised by rapid change. Stories often provide a broader framework within which to incorporate differing stories. Stories provide a bridge between different and new theories. They help people incorporate an unfamiliar event or idea into a larger context, which then connects the new with a previous experience. In this way stories are the container into which other stories (including those of science and western economy) can be added.

Historical stories are not only used in order to relate past events. They are told to make sense of the present with reference to the past.

This understanding of story that Julie Cruikshank shares with us is important for those of us who play the role of documenter of others stories. What Julie has understood from her involvement with the three women in the Yukon is that stories are not stable. They are used to respond to the complex and integral events, problems and triumphs of everyday life. Their fluidity does not, however, mean that they are not situated. The stories belong to other stories, to people, to a place. All three women claim their right to tell the stories before they begin. This is an important point in our treatment of others stories. Do we have the authority to tell them? Do we have the authority to remove them from the social life which they inhabit? Are we, ironically, in danger of blocking the way they are so fluidly used by removing them from this place and space in which they have been created?

Cruikshank alerts us to the way in which other's (the indigenous and 'First World') stories are being used. Indigenous stories are often re-told by scientists and environmentalists in a way that

fits contemporary environmental issues. This has been my common experience of indigenous knowledge tales, that they are used to back up already established knowledge in another social situation, e.g. the University or economic institution. This 'established knowledge' exists in the context of a particular social life, a particular worldview that is not necessarily the same as that from which the indigenous story has emerged. Is it appropriate to use stories of this nature just to reaffirm knowledge inside a different context, inside a different social life?

It is also very difficult to evaluate stories as historical and scientific data. Stories are more than just records of historical or cosmological events, or biophysical understandings, they are vivid reinterpretations of life and the stories themselves intrinsically hold a particular perspective of the world which is hard to remove or 'turn into' empirical data.

Despite all of her views about stories, and the difficulties of telling other people's stories, Julie Cruikshank still decided to document the stories of three 'first nations' women in Yukon. She documented their stories in English at the womens' request. They were written down in books and published. For the women this was not much of a concern. English was viewed as just another 'native' language, the written text just one more way of telling the story, although they insisted that it be translated exactly as they spoke rather than into grammatically correct English. This is where the lesson of this book lies for me: As documenters of stories we are merely a different type of storyteller. Again the issue does not lie in how or when the story is told but in the way in which these stories are perceived. Documenting stories, in the way Cruikshank does, is an attempt to reach beyond the arrogance of own position within own very powerful academic stories. Julie, as storyteller of her tale, heroically battles with what this means. She is an anthropologist and the importance of being a storyteller in that guise is clear in the way in which she justifies her discipline within the context of other academic disciplines. What seems to be the challenge for academic storytellers is the challenge that Julie takes up. She adopts the theoretical position of the storytellers she works with. The different narratives document a relationship between different groups and different understandings. This is the role of the social activity of story for the women of the Yukon and this is what Julia Cruikshank's text has done, it documents and comments on the relationship between two stories, that of the academy and that of 'indigenous knowledge stories'. Maybe this is a beginning to a 'happily ever after'. I see the Fairy Godmother dancing with Skookum Jim and a bespectacled Professor of Anthropology to the vibrant beat of an African Drum. Where am I?

Notes on the Reviewer

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Environmental Education, Ethics and Action

EDITORIAL
Rhizomatic Connections
Heila Lotz-Sisitka, *Rhodes University, South Africa*

EEASA 2004 KEYNOTE ADDRESS
Environment as Life: The journey of an environmental educator
Danie Schreuder, *Stellenbosch University, South Africa*

FEATURE ARTICLES
Rewording the World: Postructuralism, deconstruction and the 'real' in environmental education
Noel Gough, *Deakin University, Victoria, Australia*, Leigh Price, *Rhodes University, Grahamstown, South Africa*

The Role of Indigenous Knowledge in Biodiversity Conservation in the Lesotho Highlands: Exploring indigenous epistemology
Tsepo Mokuku, *National University of Lesotho, Lesotho*, Chaba Mokuku, *Maloti-Drakensberg Transfronteir Conservation and Development Project, Lesotho*

Flooding in the Context of the Barotse People of the Upper Zambezi Wetlands
Charles M. Namafe, *University of Zambia, Zambia*

Tensions, Contradictions and Inconsistencies in Community-Based Environmental Education Programmes: The role of defective educational theories
Daniel J. Babikwa, *Rhodes University, South Africa / Post Doctoral Research Fellow, United Nations University, Japan*

A Paradox for Environmental Education: How can we 'deliver training to targets' using 'participatory, reflective approaches'?
Rehema M. White, *Centre for Ecology and Hydrology: Banchory, Scotland*

Towards an Authentic Indian Environmentalism
Michael G. Jackson, *Uttarakhand Environmental Education Centre, India*

Environmental Education in Action in Secondary Teacher Training in Zimbabwe
Iris Chimbodza & Jan van Ongevalle, *Steep project, Zimbabwe*, Manasa Madondo, *University of Zimbabwe, Zimbabwe*

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Georgina L. Frohlich, *Desert Research Foundation, Namibia*, Cheryl le Roux, *University of South Africa, South Africa*

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