A TRANSDISCIPLINARY EXPLANATORY CRITIQUE OF ENVIRONMENTAL EDUCATION

(VOLUME 2)

IRONIC MUSINGS

A thesis submitted in fulfilment of the
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CHAPTER 1 INTRODUCTION

> *Irony is: to portray a cleric in such a way that it could also be a Bolshevic. To portray a fool in such a way that the author feels: yes, in a sense, I am like him too. This kind of irony - constructive irony - is relatively unknown in today's Germany.*

(Musil, in Finlay, 1990: 16)

> *...all ideology leads to war, and in this case the role of alternative ironic discourse is simply to destroy ideology.*

(Musil, in Finlay, 1990: 143).

In Volume 1, I mentioned that my writing of academic papers during the period of working on my PhD was part of my experimental, self-reflexive process (Cf. Vol 1, Chap. 1.3). Volume 2 is a record of this process. Indeed, it is perhaps advisable to read this volume first as it will provide the background to some of the ideas that I present in Volume 1, such as the role of politics in epistemological commitments, or the questionable use of 'participation' in educational approaches.

I have entitled this volume "Ironic musings" because a theme which runs through the papers is 'irony' and because all of the papers are based on retroductive logic, also known as musement. I will not elaborate further on why these papers are retroductive since Price (2005b) (Vol.2, Chap. 7) looks at this process in some detail. However, I would like to explore why I have chosen irony as key discursive practice in these papers and then why each of the papers in this collection is ironic.

1.1   IRONY AS A KEY DISCURSIVE PRACTICE

These papers exhibit the kind of irony that Habermas (in Finlay, 1990:79) might describe as strategic discursive distortions which disrupt or break with present habits of discursivity. In other words, they are oppositional to accepted normative postulates or the usual validity claims. Eco (in Bertilsson, 2004), under the influence of Peirce, describes semiotics as a process of 'coding' or 'habit –forming', which I assume is

not unlike the formation of Boudieu's 'doxa'. The self-reflexive move from doxa to humility is central to Peirce's pragmatism (Bertilsson, 2004) and is the aim of the irony in this collection of papers.

However, because these papers assume the existence of ideology as potentially avoidable 'lived illusion', they are not strictly in line with a postmodern interpretation of irony, which would insist on infinite ironic movement without the hope of absenting illusion. Furthermore, Finlay (1990:75) assumes that "over-habit forming" or "over coding" produces ideology. Similarly, in Volume 1(Cf. Vol 1:6.1.1.1), following Bhaskar, I assume that the "lived illusion" of ideology is an ingrained habitual disposition or disposition complex. Each paper in this collection therefore moves from the 'breaking of habits' explicit in the irony towards an attempt to imagine a more coherent, non ideological, way forward. This is consistent with Bhaskar's (1993) concept of explanatory critique.

1.2   THE IRONY OF EACH PAPER IN THIS COLLECTION

Price (2002) (Vol.2, Chap.2) is my earliest attempt at discourse analysis. The main text in question is the environmental report (2000) of the Electricity Supply Commission of South Africa (ESKOM). Price (2002) is ironic because it highlights the presence of colonialist language in the new African renaissance discourse, which is supposedly attempting to move beyond colonialism.

In Price (2004a) (Vol.2, Chap. 3), I use the methodological ideas contained within A.S. Byatt's (2000) book, "The Biographer's Tale", as a vehicle to explore the effect of methodology on the politics of 'big business' and Zimbabwe's land re-distribution programme. The irony of this paper lies in the parallels that I draw between left-wing arguments against 'big business' and the arguments of the violently autocratic president of Zimbabwe, Robert Mugabe. The irony of this paper is accentuated by the fact of my own left-wing leanings and my own suspicions of 'big business'.

In Price (2004c) (Vol.2, Chap. 5), I used the parallels between different interpretations of quantum theory and educational methodology to help me organise my thoughts around various poststructural approaches to educational methodology. This paper has not been published but was prepared for a PhD seminar at the Education Department, Rhodes University. The irony of Price (2004c) lies in the revelation that the two thinkers, Derrida and Einstein, behind the two streams of knowledge most influential in arguments in favour of irrealism and the linguisitic fallacy, namely poststructuralism and quantum physics respectively, were themselves not proponents of irrealism.

Price (2005a) (Vol.2, Chap. 6) is an experiment with the interpretations of particular words, such as 'participatory', 'social', 'pragmatic' and 'contextual'. It is ironic because it considers how these words, which are commonly used in education to avoid unethical practice, can nevertheless insist on unethical practice. In Price (2004c) I was primarily inspired by Haack (1998), a Peircean scholar.

My next paper (Price, 2005b) (Vol.2, Chap. 7) is an investigation of the usefulness of retroduction as a way to approach seemingly intractable problems; in this case, the problem of allowing indigenous knowledge to make significant contributions to contemporary discussions around health and the environment. This paper is ironic because it insists that to value indigenous knowledge is to treat it the same way that one would treat 'Western scientific knowledge'. This is a surprising position for some one such as myself, given that I simultaneously argue for a broadening of the influence of indigenous knowledge. Arguments that we treat indigenous knowledge as we would scientific knowledge are usually associated with narrowing of the influence of indigenous knowledge, since they only allow us to value aspects of indigenous knowledge that meet the criteria of empiricism and replicablity. This paper ameliorates its seemingly contradictory position by suggesting that the Western scientific enterprise has been mistaken to disregard non empirical, non replicable aspects of knowledge.

Price (2006a) (Vol.2, Chap. 8) is a review of a book by Philip Tew entitled, "The contemporary British novel". It ironically draws attention to the poststructuralist scepticism of categories which is motivated by a desire to avoid inequalities but which nevertheless is likely to reproduce inequalities. It also points out the irony that some writers, ostensibly using critical realist methodology, are nevertheless entrenching the positions that critical realism critiques. Although not on the topic of environmental education, this paper was important in my thinking about the tendency in South Africa and Zimbabwe to avoid categories in environmental education (Cf. Vol.1: Chap.7.2.4).

Price (2004b) (Vol.2, Chap. 4) and Price (2006b) (Vol.2, Chap. 9) are two papers inspired by the same event; namely, that a majority of my students from business and industry prefer course work that trains them in job skills, rather than course work that introduces them to reflexive praxis. This placed me in a predicament because of my commitment to the latter. These papers are ironic because they highlight how the practice of 'participation', assumed to achieve equality in education, can entrench inequalities. Price (2006b) takes a more explanatory tone towards the problem and engages with the writing of one of the originators of 'participation' as research and teaching methodology, Robert Chambers (1997, 2004) and Chambers *et al*., (1989). Price (2006b) was originally written at the request of the International Institute of Environment and Development, the institutional home of Robert Chambers, who asked for a paper that could be easily understood by a non academic audience. It was eventually published in the Southern African Journal of Environmental Education.

1.3   PRESENTATION OF THE PAPERS IN THIS VOLUME

Each of the papers in this collection forms one chapter of the volume and most have already been published elsewhere, during the period 2002 - 2006. This collection does not include all my writing over this time period; the majority of excluded writing being that which I completed in my capacity as a consultant or educator. Most of the

papers have been through an invaluable process of peer review, although I did not always follow the changes suggested by the reviewers. The papers that I have provided here may not be identical to the published versions due to late editorial changes. The reader should also note that the writing of these papers and the writing of the thesis in Volume 1 were closely related exercises, therefore there is some repetition. The papers are presented in chronological order according to when they were finalised. As with Volume 1, quotations which do not include a page number were taken from internet documents which lacked pagination.

CHAPTER 2 INDUSTRY AND SUSTAINABILITY: A RE-VIEW THROUGH CRITICAL DISCOURSE ANALYSIS

Originally published as:

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2.1   INTRODUCTION

Within industry, the actions taken in response to an increasingly prominent environmental crisis include a number of possibilities. One of the most common responses is public environmental reporting. This paper provides a perspective on industry's responses to calls for sustainable development, not through an overview of trends and initiatives in the region, but through an in-depth analysis of one instance of environmental reporting, namely the annual Environmental Report (2000) of the Electricity Supply Commission of South Africa (ESKOM). This report was awarded the KPMG Gold award for the best sustainability disclosure in an annual report in the Public Entities Category (2000 Annual Report), and the KPMG Gold award for the best Corporate Environmental Report in the South African Category (2000 Environmental Report). KPMG is a global network of professional service firms providing financial advisory, assurance, tax and legal services (the letters KPMG stand for the names of the organisation's founding members). This report could thus be seen as an example of environmental 'best practice' in industry in the region.

This paper offers possible insights to those people in companies responsible for writing their environmental reports, to allow a greater understanding of the language and rhetoric they use. It also aims to help those who teach about the environment, by offering a possible approach for teachers that allows them to mediate between such texts as the ESKOM report and their students. Critical Discourse Analysis (CDA) of a

document such as the ESKOM report can deepen students' understanding of the complexity of environmental discourses at play in society.

In the title of this paper, the word 'critical' is used to indicate an affiliation with CDA techniques. Nevertheless, it should be noted that this paper uses only those CDA techniques which might easily be applied by the general public, in an attempt to de-mystify discourse analysis and open it up for more general useage. This is not an ideologically 'critical' paper in that, whilst I use critical analysis techniques, I attempt to avoid positioning myself ideologically as either for or against ESKOM. I am not trying to uncover hidden but foundational truths about ESKOM. Instead I try to show up contradictions and problematise the ESKOM use of language.

The title of the report used in the analysis is "Towards Sustainability". The theme of sustainability will be emphasised in this analysis, since it was an important focus for the World Summit on Sustainable Development. But it is also a word whose meaning and usefulness has been contested.

The meaninglessness of such universal statements (as 'sustainable development' and 'sustainability')… and the arrogance of the white, upper-middle class, educated men who develop such statements, shines through. We need to be encouraging people to deconstruct these statements for the value they embody and the perspectives they contain (Gough, cited in Sauve, 1999: 24, explanatory comment in brackets mine).

For example 'sustainability' and the term from which it was derived, 'sustainable development', do not indicate 'what' is being sustained, or for the latter, 'what' is to be developed. Given the frequency of the usage of the word 'sustainability' it seems it may be useful to examine how this word is being used within the context of industry, and perhaps what is the underlying perspective contained within it.

Texts, such as the ESKOM environmental report, are instantiations of socially regulated discourses and their processes of production and reception are socially

constrained (Janks, 1997: 329; Hodge & Kress, 1988: 4). Such a report is thus a form of social practice that is tied to a specific historical context and is a means by which existing social relations are reproduced or contested and particular interests are served. In this case, we are examining the social relations around environmental and sustainable developmental issues. We might therefore ask of the ESKOM environmental report questions that relate its discourse to the underlying social and environmental perspectives that the report embodies. Specifically, we might ask how these perspectives and their attendant relations of power are reproduced through the use of such words as 'sustainability' within the report.

2.2   METHODOLOGY

 In answering these questions, this paper will adopt an approach that will include both engagement with, and estrangement from, the text. Engagement is necessary to allow the entry of the text into the confines of our subjectivity. It can also be described as 'reading *with* the text'. Here an important question would be: What do the ESKOM management want to say to us in this report? However, engagement without estrangement is to submit to the power of the text regardless of one's own positions (Janks, 1997: 330-331). In reading 'with' the text, we are accepting the preferred reading and thus offering unquestioning support for the *status quo*. This paper therefore uses CDA techniques to deliberately resist the text's apparent naturalness and tries to offer an alternative reading, i.e. it also attempts to 'read *against* the text', by asking such questions as: How is the text positioned or positioning? Whose interests are served by this positioning? Whose interests are negated? What are the consequences of this positioning? (Janks, 1997: 329). This paper will attempt to balance estrangement with engagement, as estrangement on its own is a refusal to allow otherness to enter, and may lead to an overly simple oppositionalising of, for example, ESKOM management versus the environmentalists of the world.

Reading 'with' the text is a simple matter of co-operatively reading the text and taking it on face value. Reading 'against' the text can also be a simple matter if one is very

clearly starting from a position of estrangement (Janks, 1997: 331). For example, the environmental report of a Zimbabwean chemical company claimed that their emissions of sulphur dioxide were well within the legal limits, implying (in the preferred reading) that their factory was safe. Yet when an asthmatic visited their premises, she immediately found it difficult to breathe. It was not hard for her to read against the preferred meaning of 'legal limits', and decide that it certainly did not mean the factory was safe. She had found it easy to question the meaning of 'legal limits' and whose interests it served.

However, where we are not immediately estranged from a text, it may be harder to question, and this is where a systematic Critical Discourse Analysis (CDA) approach can be helpful. In this paper, I used a modification of Fairclough's CDA techniques, which involve the following: description (text analysis), interpretation (processing analysis) and explanation (social analysis). I focused primarily on just one text, the ESKOM Environmental Report (2000) report. As I was aware that this was a limited starting point, I also looked for the patterns I identified in this text in other related ESKOM texts. I asked the question: are my findings in the ESKOM environmental report able to explain quite small features of other related texts? This approach, as a way to validate CDA findings, is suggested in Fairclough, 1992:238 and Potter and Wetherall, 1989:169-172. In the interests of brevity, I have reported only on the parallel findings and deepening insights that I found in just one related text, namely the ESKOM Annual Report, 2001.

In the interests of keeping the paper to a reasonable length and in order to avoid an overly technical approach, I did not address such issues as modality, lexicalisation, nominalization, or the use of the active or passive voice. Instead, this paper focuses on the visual signs of the report, the thematic structure of the text and its information focus (especially any information omissions), to give its main insights.

2.3 RESULTS

2.3.1 Description of the signs (text analysis)

2.3.1.1 *The visual signs*

The report is printed on glossy paper and contains diagrams, graphs and colour pictures on each of its 56 pages. Running along the top of each page, heralding the text headings, is a pastiche made up of brightly coloured photographs of shiny fibre-optics, time lapsed moving lights, electrical equipment and pylons. Several of the photos are taken from the perspective of the viewer looking upward, into the sky.

The cover of the report has three photographs. The central and largest one is a satellite picture of the world at night. Africa is in the foreground. It is mostly in darkness, with some lighting at its edges and in South Africa. The rest of the world, in comparison, appears to be very brightly lit. The second photograph is of electricity pylons and a coal-fired power plant. In the foreground is a field of grass and flowers, in the background are white fluffy clouds, which one could initially mistake for steam emissions from the power plant stacks. The third photograph is of a rural house, featuring a prominent solar power panel, and a homely scene of children playing and a mother sitting nearby, preparing food.

On page five, a map of southern and central Africa is displayed over a full page. It is criss-crossed by red traces, indicating power lines, and scattered with multi-coloured dots, indicating power plants.

2.3.1.2 *The verbal signs*

The report provides a large amount of background information on ESKOM, its Environmental Management System (EMS), economic and social issues, and the performance of the company. It draws attention to the many sustainability projects in

which they are involved and outlines the many mitigation measures underway to reduce impact on the environment. These measures focus on improved EMS implementations at certain of its coal sites, reduced water pollution and consumption, reduced air emissions, management of impacts on land and biodiversity through Environmental Management Programmes, land registers and pre-construction audits.

The report does not deal with how it disposes of its nuclear waste. It is nevertheless remarkable for its candour in reporting failures alongside successes. For example, it admits 21 legal contraventions, 66 environment-related complaints and reports, and, for the first time ever, gives details of the quantity and quality of emissions of its nuclear reactor. There are two sections of the report that deal directly with sustainability. The first is a summary (referred to as the "Executive Summary") of the five page section of the report entitled "Towards Sustainability". This section appears at the end of the report.

In the executive summary, the sustainability section is divided into two categories: demand-side options and supply-side options. There are two demand-side options: energy efficiency projects to improve industrial consumption, and load management systems to reduce maximum demand at peak times such as real-time pricing. There are 6 supply-side options including: re-commissioning an old plant; researching and constructing new coal, gas and hydro plants; research into solar, wind, wave and water power; research into distributed generation technologies, such as photovoltaic applications, fuel cell research and diesel for remote locations; importing and storing energy and implementing a Pebble Bed Modular Reactor (PBMR), i.e. nuclear power. These options are expanded in the section towards the end of the report. The PBMR is mentioned twice, once very briefly in the executive summary (one sentence) and once in the later expanded version (4 paragraphs).

2.3.2 Interpretation of the signs (processing analysis)

2.3.2.1 *Reading with the text*

The visual signs, with their bright lights and vision of the need in Africa for electricity, imply that ESKOM is a forward thinking organisation, committed to the future and to providing Africa with energy. It plans to be in the forefront of energy production in the region. It takes the stance that a company can be both environmentally friendly and a competent producer (as is implied by the picture of the power station in the flower field) and that its activities will bring a better quality of life (implied in the picture of the rural family with solar energy) to all in Southern Africa (evident in the map). ESKOM is a remarkable company in that it has a strong environmental management focus, has a strong social conscience (for example, sees itself as having an important role in the development of the region) and has a strong commitment to being open about its environmental impacts. However, it is also a company run on shrewd economic lines that will confidently maintain its market superiority into the future. The demand for energy is so large that ESKOM is rapidly expanding production, through old and new technologies.

ESKOM has taken a pragmatic stance on the generation of energy using nuclear power. Given the need for energy in the developing Southern African region, directly related to its potential for development, and given the relatively clean nature of nuclear energy (apart from the radio-active waste), ESKOM considers nuclear reactors to be an important and viable option for sustainable power production in South Africa. Thus it confidently places the PBMR in the sections on sustainability, as it will help secure future generations of power, at the same time reducing a variety of emissions usually associated with power generation.

2.3.2.2 *Reading against the text*

The image of Africa in darkness, with only South Africa and the rest of the world lit up, summons images of the colonialist ideal of enlightenment: bringing light into darkest Africa. That South Africa is, in this picture, also well-lit might also be read as an indication of South Africa's vision of itself as bringing 'the light' to other African countries. Additionally, the map of Africa, showing ESKOM's commitment to bringing electricity to Africa, is strongly reminiscent of maps of Africa from Cecil John Rhodes' times: here, instead of electricity lines, there were railway lines. The 'feel' or atmosphere around these maps was similar, the makers of both the ESKOM map and the Cape-to-Cairo railway maps proudly showing how Africa was going to be developed by forward thinking visionaries intent on bringing enlightenment ideals into the Dark Continent. Although these pictures on their own could not sustain this reading, they could indicate a need to look for evidence of neo-colonialist tendencies within the discourse embodied by the ESKOM environmental report, or other similar reports. Also, enlightenment in itself is perhaps only a problem if it is imposed, rather than a mutual sharing of ideas and a mutual growth. Although the similarity of the ESKOM front page pictures to colonial pictures is unnerving, perhaps a deeper reading of this and related texts is needed before drawing conclusions.

The large amount of information provided and the status of the report, indicated by its high gloss print, could be read as giving weight to the environment, but could also be read as a publicity stratagem (surely less gloss would be more environmentally friendly?) Does this report represent an attempt to obtain good publicity, by making the most of the environmental focus of the time? One might hypothesise that if the environmental focus of the time were to change, then ESKOM's focus on the environment might change too.

2.3.2.3 *Omissions*

The absences in the ESKOM report may also be meaningful. To begin with, there is the relatively small coverage of the PBMR. This perhaps functions to make nuclear waste seem ordinary and thus worthy of no more importance than any other fuel option. The absence of any acknowledgement of the public debates and even outcries around the PBMR contributes to making it seem 'natural' and logical. Should we be reading 'with' the text on this one? Is nuclear power actually quite safe? The arguments for and against nuclear power are complicated, technical and full of uncertainty on both sides. The global trends in society would indicate a preference towards a precautionary approach to nuclear power because of its potential problems. For example, Newsweek has this to say about the current attitude towards nuclear power: "Nuclear: 'Future fuel' of the past 50 years, is now shrinking because of high costs and safety worries (Sparks, J.D., Newsweek, April 8 – April 15, 2002: 42)".

Nuclear waste seems to be the ultimate sustainability question because its negative consequences may be felt in such a distant future. It is thus hard for us to engage with the problem of nuclear waste in the present. Perhaps our approach to nuclear waste might be a good marker of how seriously we are taking sustainability to heart, where sustainability is given its original focus as "Development that meets the needs of the present *without compromising the ability of future generations* to meet their own needs" (Our Common Future, 1987: 43, my emphasis).

The absence of information on ESKOM's nuclear waste disposal is an interesting omission given the candid flavour of the rest of report. This omission serves to make the other confessions seem possibly like a smoke screen. One has the impulse to ask what else has not been reported? If the company is at least seen to be trying to be open, is this enough? Bourdieu, 1998, comments that often in society, it *is* enough to be seen to be trying to follow the rules, even if one is not actually, behind the scenes, following them. This tendency in society may be innocuous in some situations, but in others, such as where the welfare of people is at stake, it can be dangerous.

What does ESKOM mean by 'sustainability'? Or, rather, whose interests are being served when ESKOM talks of 'sustainability'? To answer these questions I refer back to the report's introductory sentence on sustainability. In this sentence, ESKOM's approach to sustainability is stated as being a process which, "… provides the strategic framework for projections of supply-side and demand-side options that will need to be implemented to meet future energy demands" (ESKOM Environmental Report, 2000: 7).

There is no mention of the environment, and from this statement, it would appear that sustainability, for ESKOM, has more to do with business (energy production) sustainability than environmental sustainability. Thus one might argue that it is not the interests of the Earth (and thus sustainable living) that are being served, but of the company.

To add to this, if one looks at the list of planned projects aimed to encourage 'sustainability', most of the projects cannot be differentiated from projects designed to ensure the company's usual business growth. For example, wind energy generation is starting to produce significant profits for companies in the USA and Europe (Earth Policy Institute, 2001).The projects that involve photovoltaic fuel cells are described as being of particular importance in remote areas without access to the main power grid. Reading against this, one might see that such research has more to do with expanding the energy market than to do with cleaner energy production. The confident inclusion of the PBMR in the sustainability section may seem odd to those readers from non-business/pro-environment backgrounds, who might consider nuclear energy to have a question-mark over its contribution to sustainability of the Earth's ecosystems. However, it does not seem odd to a person whose subjectivity is constructed by a meaning of sustainability as sound development and good business sense. The projects to reduce the amount of electricity demand could be read as environmentally friendly, but is this because, as yet, ESKOM cannot keep up with demand? Given the hypothesis that ESKOM's definition of sustainability is more to

do with business sustainability than environmental sustainability, one might predict that they would not continue these projects should demand decline below their capacity to produce.

2.3.3   Explanation of the signs (social analysis)

Different lexical selections can signal different discourses (colonial, liberal, labour discourses). Most texts are hybrids, which draw on more than one discourse. …Textual instantiations capture the clash of discourses and demonstrate ideological forces at work to produce a different hegemony (Janks, 1997: 335)

In this ESKOM document, the two main discourses are: the discourse of environmentalism (sustainability) and the discourse of economic rationalism (arguably very close to a discourse of neo-colonialism or 'modernism', with its reliance on market *dominance/expansion* rhetoric and perhaps explaining why such images as the dark African continent seem natural). Although not very obvious in the ESKOM Environment 2000 report, there is also a hint of a patriotic/black empowerment discourse (such as in the central position of Africa on the front cover).

The document should be seen within a context of strong pressure on companies to be 'environmentally friendly' coupled, nevertheless, with a strong pressure to be classically successful within the dominant paradigm of economic development. The need for ESKOM to prove itself as an agent of development is especially strong in the South African context because South Africa is a newly independent country with serious issues of poverty to address. There is a clash between these two ideologies and the discourses with which they are associated, but the contradiction in the use of both at the same time is hidden, for example, through the use of professionalism and etiquette.

Hodge & Kress (1988: 3 – 5) explain how such an ideological complex as that which produced the ESKOM report "projects a set of contradictions which both legitimate

and ameliorate the premises of domination". They explain how the different halves of the contradictions would cancel each other out. "We need therefore, to invoke a second level of messages which regulates the functioning of ideological complexes, a level which is concerned with the production and reception of meanings." Hodge and Kress go on to explain that this second level of meaning must be "highly visible in politeness conventions, etiquette, industrial relations, legislation, and so on".

So, for example, in the PBMR contradiction where one discourse says nuclear energy is sustainable and the other says it is not, the contradiction is hidden in the following ways.

- In terms of rules about the production of meanings, it is hidden by the professional relegation of the reporting on the PBMR to the same importance as any other energy source. It would be 'unprofessional' (or 'overly emotional') to emphasise the PBMR issue in a serious report such as this one.

- In terms of rules about the reception of meanings, the contradiction is hidden by rules of politeness, as in, 'it would be unfair and impolite to criticize ESKOM when it is clear that they have been trying so hard'. Also, there are rules about criticizing the 'hand that feeds you': ESKOM has such a central role in producing power in the region, that etiquette would have one politely allow its contradictions to go unnoticed. One risks being labeled 'unpatriotic' or 'anti-development' should one point out the contradictions in ESKOM's rhetoric.

The effect of these rules of production and reception is to legitimate and ameliorate the premise of domination upon which rests the position of ESKOM as a primary economic player in the region.

2.4   PARALLEL FINDINGS AND DEEPENING INSIGHTS FOUND IN
       THE ESKOM ANNUAL REPORT, 2001.

It should be noted that the Environment Report (2000) was written two years ago in a Southern Africa that looked very different to the Southern Africa of the present. September 11th, the economic and political strife in Zimbabwe, and its effects on the economies of the region, had not yet happened. The New Partnerships for African Development (NEPAD) with its rhetoric of the African renaissance, was not yet in existence.

Perhaps as a result, the latest, 2001, ESKOM annual reporting strategy looks very different to the 2000 Environment Report. As predicted by the CDA of the 2000 environment report, which suspected the focus on environment was something of a publicity strategy, the change in international focus away from environment, towards issues of immediate economic and national security and patriotism, has meant that the environmental focus has been dropped. Instead of a separate environmental report, this has now been included within the annual report. The 2001 annual report has no sections that deal directly with sustainability and only one heading dedicated to the environment, which simply gives the environmental policy. It would appear that in the clash amongst the different hegemonic discourses, the discourse around the African renaissance has superceded the others.

Parallel to the 2000 environmental report, nuclear energy in the 2001 annual report is given no more prominence than any other form of energy, and 'sustainability' is used in ways that seem to imply sustainable business rather than a sustainable Earth. For example, the 2001 annual report talks of 'sustainable energy supplies' (17) and 'sustainable human resources' (25)

A characteristic of the African renaissance discourse, as it has been interpreted in ESKOM's 2001 annual report, is the use of rhetoric borrowed from colonialist discourses. This seems to support the hypothesis that neo-colonialist rhetoric was

present in the 2000 report. In the 2001 report, however, the rhetoric is stronger and more explicit. For example, there is a focus on large-scale projects and smaller projects to be replicated in all developing countries.

A global effort is underway to design projects in South Africa….using some of the core debates at the Summit as a foundation. This would be a global legacy that ensures that specific projects are implemented across Africa and are able to be replicated in all developing countries (ESKOM annual report, Chairman's statement, 2001: 22)

This is a characteristic pattern of neo-colonialist (some might call them 'modernist') strategies: it is assumed that there is 'one big answer' to everyone's problems. The possibility of locally initiated, highly differentiated projects at a smaller scale is overlooked. It is this assumption that leads to grand schemes in which small communities have few rights. These strategies have been severely questioned (e.g. Bauman, 2000). The assumption that one group of people can have 'the answer' for another group of people underlies this model of development, and it was this same assumption of 'knowing better' that lay beneath colonialist strategies of the past. Even the innocence of wanting to 'help' and be of service, seen here in the ESKOM annual report, is commonly seen in the early African colonialist missionary rhetoric (Page & Page, 1991: 6).

A comment in the report that shows both the will to be of service, mixed in with the assumption of 'knowing better' (bringing light into the darkness) is as follows:

In a very real sense, ESKOM is a partner with other African utilities on the continent improving economies and advancing socio-economic development. We do this by both literally and metaphorically bringing light and energy to our continent (ESKOM annual report, chairman's statement, 2001: 20)

Is this colonizing rhetoric acceptable because it is being spoken by African people with 'knowledge and power' about their 'less developed' countrymen/women and neighbours, rather than foreigners about African people?

The Chairman's 2001 statement also draws on the unlimited growth model of rationalist (modernist) economics when he says: "It is now possible to visualize a different Africa…an Africa whose scope for growth is limited only by its imagination…" (ESKOM annual report, chairman's statement, 2001: 20).

This idea of unlimited growth is seen by some to be contrary to sustainability principles (Mies & Shiva, 1993; Sachs, 1999). The United Nations Environment Programme's *10 Years after Rio* assessment claims that whilst there are environmental improvements in industry, these are being overtaken by economic growth and increasing demand for goods and services (UNEP, 2002:19). Thus another question is: how viable is the unlimited growth model as the basis for sustainable development?

2.5   CONCLUSION

The ESKOM reports are merely instantiations of discourse. Their production and reception are governed by rules in which the writers of the texts are well-versed. Thus these texts are significant, in terms of this CDA, largely because of what they say about the discourses allowed by society (who is allowed to say what, when). In other words, the writers of these texts are governed/constrained by a set of rules about which they may be more or less conscious, but which nevertheless exert a strong control over them: they reflect the constraining and enabling rules of society.

Keeping this in mind, it is important that this CDA paper is not seen to be criticizing the actual company of ESKOM or the writers of the annual reports. On the contrary (and this is why it is necessary to genuinely read 'with' the text as well as 'against' it): it is important to hear what the management is trying to say within the ESKOM

reporting documents. Thus, it is true that ESKOM is one of the best examples in Southern Africa of a company taking its environmental responsibilities seriously. It is also true that they are working hard to improve the quality of life for Southern Africans in general: we could not do without their contribution to society. Having myself worked in industry on environmental projects, I respect the work that ESKOM has put into its environmental initiatives. One of the reasons for choosing them to be the focus of this re-view is because they are so obviously above reproach, given the set of business rules by which they are constrained and on which their survival depends.

Bhaskar (1989: 73) explained that such objects as ESKOM are not the starting points of inter-relationships but the results of those inter-relationships. He says "on the realist and relational view advanced here, collective phenomena are seen primarily as the expressions of enduring relationships". Latour (1993, 1999) noted how he wanted to write without 'denunciation' by focusing at the same time on both the network relationships and their apparent 'quasi-objects' (such as ESKOM), rather than on the objects alone, or the networks alone.

Therefore, some questions that remain after this CDA might be: What characteristics of the inter-relationships of society ensure that a company such as ESKOM, which has the intention to be more socially and environmentally responsible, nevertheless uses questionable rhetoric and a questionable business approach? Their rhetoric appears to mirror that of colonialist times and their business approach seems to draw on the same methods used by the people who created the current environmental crisis, despite evidence that those methods are seriously flawed. Another question might be: Can sustainability, in its original sense, be achieved using the same approaches that lead to the current socio-ecological problems?

This paper is therefore trying to show the complexity of environmental issues, and to break open for debate some of the hegemonic discourses currently being used within arenas focusing on sustainable development. The challenge is to create expectations

of our businesses, such as ESKOM, that they move beyond their current globalising, dominance rhetoric towards power-sharing rhetoric, where the voices of the marginalized, and their call for greater environmental protection, are not silenced.

CHAPTER 3 APPLIED METHODOLOGICAL LESSONS FROM A.S. BYATT'S BOOK "THE BIOGRAPHER'S TALE"

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3.1   PART 1: DISENCHANTMENT WITH POSTSTRUCTURALISM IN "THE BIOGRAPHER'S TALE"

In her book, "The Biographer's tale", A.S. Byatt delineates distinctly sacrilegious views on poststructuralism and post-modernism. Yet, her message is ambivalent because her hero, Phineas Nanson, despite his disillusionment with poststructuralism, never entirely leaves its influence on his life behind him and does not return to the world of naïve realism. More specifically, Byatt, explores certain interpretations[1] of the Nietzchean tradition which informs poststructuralism, and the way in which this tradition is self erasing. Bhaskar, a critical realist, has also explored this aspect of poststructuralism. He writes:

> *For the Nietzschean tradition which informs poststructuralism, truth is a 'mobile army of metaphors', ultimately an expression of the will-to-power, which must be thought both necessary and impossible, 'under erasure' ... It is hard to see this position…as anything other than palimpsesting itself out of existence, self-erasing.*
> (Bhaskar, 1993:216)

Byatt begins her tale with her hero, Phineas Nanson, deciding "abruptly" to leave behind his life as a post-modern literary theorist for "a life full of things" (Byatt, 2000:1,2). Significantly, he decides to write a *biography*, an art despised by poststructuralists "since it is an art of things, of facts, of arranged facts" (Byatt 2000:5). In having her hero embark on such a journey, the writing of a biography of

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[1] I acknowledge that some forms of poststructuralism *do not* follow the nihilism of Nietzsche. For example, Derrida, as explained in Norris (1996:222-250) is not guilty of this mistake, unlike many of his interpreters.

the biographer, Destry-Scholes, Byatt opens up the possibilities for an exploration of the relationship between a biographer's telling the story of his/her chosen subject of interest, and the actual subject itself. In this way, Byatt explores the relationship between the signified, the signifier and the referent.

The approach to this relationship (between the signified, the signifier and the referent) explored in this book is an extreme interpretation of poststructuralism. However, Byatt, through her character of Phineas, finds this solution wanting although also addictive. A particularly stinging criticism of poststructuralism, delivered by Phineas, is:

> *'To find, not to impose' as Wallace Stevens magnificently said. One of the reasons I had given up poststructural thought was the disagreeable amount of imposing that went on in it. You decided what you were looking for and then duly found it – male hegemony, liberal humanist <u>idée's recues</u>, etc. This was made worse by the fact that the deconstructionist and others paid lip service to the idea that they must not impose – they even went so far as believing they must not find either. And yet they discovered the same structures, the same velleities, the same evasions quite routinely in the disparate texts.*
> (Byatt, 2000:144)

However, an even greater criticism of this poststructuralism is perhaps illustrated by Byatt with her treatment of a gay couple, who own a travel shop, and the unsavoury character, Bossey, one of their customers, who unbeknownst to the gay couple is using their facilities to book trips abroad to participate in Snuff movies. Bossey's lifestyle draws attention to the depravity and destructiveness of the *relativism* that post-modernism can spawn.

Byatt is nevertheless careful to show that all people dabbling in a little playful sado-masochism, as do the gay couple, are not to be confused with the likes of Bossey and that all gay people are not paedophiles. Thus, the gay couple, despite Phineas' initial urge to associate them with Bossey, are in fact comparatively harmless, but not entirely so. Essentially sympathetic, if at times misunderstood, even they receive a

criticism of their life. Through the voice of Fulla, an environmental activist, Byatt gives the gay couple (and post-modernists in general) a severe talking to. She says:

> *You'd think the fate of the earth would impinge even on fairy hedonists…You send people out there into fantasy worlds, and they choke in real forest fires in Indonesia, in palls of smoke from burning forests that aren't in your pretty cutouts.*
> (Byatt, 2000:205)

(Although I should add that Phineas and Fulla, in the end, remain good friends with the gay couple, and the latter make up for their "fairy hedonism" by offering to set up a travel holiday in which tourists will help with ecological research)

Despite Phineas' disenchantment with poststructuralism, he remains, almost against his will, connected to its key lesson; he does not return to what Bhaskar calls "the positivist illusion in metaphysics (the illusion that there is no illusion)" (Bhaskar, 1993:192). He starts out naively trying "most seriously not to impose…more primitively not to impose my own hypotheses about who Destry-Scholes was, or what he was doing" (Byatt, 2000:144) but he discovers that, despite his best intensions, the biography has become his own (rather than Destry-Scholes') personal story. He decides that the biography cannot be published as it is too much about himself which rather repulses him, because as a child he "was brought up to believe in self-effacement and as an adult to believe in impersonality'. (Byatt, 2000: 250) This is an interesting point, because it implies that if Phineas had *not* been brought up to believe in self-effacement and impersonality, then he would have been able to accept that his biography must have his personal story imprinted upon it, too.

All in all, it appears that Phineas holds the opinion that 'constructedness', or the way he imposes his own story onto that of his biography, is a *hindrance* to finding truth. When this opinion is held by a researcher, it may result in the researcher denying that things need be constructed, in order to believe in them (as does Phineas at first – a naïve realist position) or it may result in the researcher giving up the research

enterprise altogether in a Nietzschean movement of despair (as Phineas does later). However, it may also result in the researcher simply living with the contradiction, as in Phineas' description of poststructuralists above, where they denounce imposition and the finding of knowledge whilst continuing to impose and find. Bhaskar might call this sort of contradiction " a *performative contradiction* – or theory-practice inconsistency" (1993:117)

How, then, *should* the biographer settle his relationship with the subject of the biography? Destry-Scholes represents one extreme position on this question: he gives up trying to be truthful about his subject's life altogether and makes up fictional pieces. Phineas represents another extreme position: he simply gives up the endeavour. This is where I differ from both Destry-Scholes and Phineas: I think that biography (and research in general) can remain *true-enough* to the subject (not be fictional) yet still carry the mark of the researcher. This reminds me of Donna Haraway's description of the *mutated modest witness*, her alternative to the naïvely realist, *modest witness*. For her, "the mutated modest witness cannot afford self-invisibility" (1997: 268). This is contrary to Phineas' position; he would be repulsed by the lack of self-effacement and lack of impersonality implied by making the writer visible. For Haraway, however, the visibility of the researcher is an imperative because of the impossibility of naïve objectivity (Haraway, 1997:267).

A second important theme in "The Biographer's Tale" is the contrast between Phineas' two lovers, Fulla and Vera*,* which implies an epistemology which allows for both the real and constructed aspects of truth. I consider this to be a useful position for researchers to take and it is close to certain contemporary realist positions, such as Critical Realism (Bhaskar, 1989;1993; Sayer, 1991), in which there are both transitive and intransitive aspects of truth. I explore this theme in Part 2 of this review, through an applied analysis.

3.2 PART 2: AN UNLIKELY MARRIAGE: ROBERT MUGABE'S POLITICS AND ANTI-GLOBALISATION RHETORIC

As indicated in Part 1 above, an overt theme in Byatt's "The Biographer's Tale" is the exploration of methodology, touching on certain interpretations of poststructuralism, naïve realism and critical epistemologies. Byatt treats the subject comprehensively, with detail and precision and at the risk of implying an over-simplification of her work, I am in this paper going to concentrate on just one of the metaphors she offers in her attempt to come to terms with some of the apparent contradictions in research/activist[2] methodology.

This metaphor comes in the shape of the relationship between Phineas, the hero of the book, and his two lovers, the strongly contrasted women, Vera and Fulla. Vera has a fascination with death and collects photographs of bones and tissues and cancers, finding them beautiful (she is a radiographer); she is slim and silvery, uncommunicative and precise. Fulla studies bees (she is an entomologist) and is passionate about saving the world; she is physically strong, golden, earthy and opinionated. I assume that Fulla, named after an Earth Goddess, represents a critical aspect of academia, originating in certain materialist Marxist analyses (excluding the Frankfurt School), which seek to explain social structures in order to change them. This approach is positivistic in the sense that the 'reality' of the social structures is unquestioned. "Marxist theory makes a mistake quite similar to the one Kant denounced in the ontological argument…it makes a 'death defying leap' from existence in theory to existence in practice" (Bourdieu, 1998: 11). Vera, on the other hand, seems to represent certain non-realist methodologies, often, perhaps inaccurately (Gough and Price, 2004), called poststructuralism, in which 'being' is as Bhaskar (1993:135) might say "(epistemo)-logicized or linguistified" [3].

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[2] The close relationship between education research and activism has been explored in, for example, Lather (1991).

[3] I acknowledge that some forms of poststructuralism *do not* completely linguisitify being. For example, Derrida, as explained in Norris (1996:222-250) is not guilty of this mistake, unlike many of his interpreters. In this essay I, concentrate solely on those forms of (popular) poststructuralism which *do* linguistify reality, exemplified by, for example, Richard Rorty (1981).

In Byatt's book, Phineas comes to terms with the two very different women by simply acknowledging them and discovering an appreciation for both of them. But they must be kept entirely separate for the situation to work. Phineas is left with a schizophrenic life, in which both women play an important role, and through whom *he* is able to be a whole and happy human being. He makes use of each woman to suit the moment and his particular circumstances and needs. All things considered, there is something coldly pragmatic and a little disconcerting about the ethics of his dating two women without their knowledge of each other.

To carry the metaphor back to our work as environmental educators/researchers and change agents, one might ask about the ethics of changing one's methodology to suit one's social/practical aims. In other words, is it ethical to syncretically juxtapose poststructuralism (or at least, that form of poststructuralism which completely linguistifies being) and classic critical theory side by side, at alternate moments in time, to help us achieve social aims?

3.2.1 Should we syncretically juxtapose poststructuralism and critical theory?

I would guess 'no'. Rather, we should use both approaches, *at the same time*, which requires that we give up the extreme versions of both. The following quote is evidence, I think, that Phineas, in the end, manages to accommodate key components of both methodologies, at once, in a non-syncretic way:

> *I found that I had in a way invented Vera and Fulla[4], whilst **at the same time** being constantly surprised by their **independence and unpredictable reality**.* (Byatt, 2000:237,238, my emphasis)

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[4] Vera and Fulla can here stand for themselves, or for the methodologies which they represent – in the latter incarnation they are an appropriate reminder that even the methodologies here presented have their constructed elements – particularly simplified in this essay for the purposes of explaining the main thesis.

This implies a methodology which allows, simultaneously, for both the real and linguistified aspects of truth. I consider this to be a useful position for researchers/activists to take and, as mentioned earlier, it is close to certain contemporary realist positions, such as Critical Realism (Bhaskar, 1989, 1993; Sayer, 1991), in which there are both transitive and intransitive aspects of truth. In the words of Bhaskar (1993:216): "What is needed is a theory which neither elides the referent nor neglects the socially produced character of judgements about it". In trying to understand what is meant by the 'transitive' and 'intransitive' components of reality, it perhaps helps to remember that the terms are commonly used to make a grammatical distinction between types of verb. An intransitive verb implies simple 'isness'; there is no implied relationship between the object and anything else. For example, in the sentence, "The plant thrived on the window sill", the verb "thrived" is intransitive, and the prepositional phrase "on the window sill" acts as an adverb, describing where the plant thrived. The sentence would still make sense if we were to simply say "The plant thrived". A transitive verb, however, *requires* the existence of a *relationship* between an object and a subject. For example, this sentence: "The waiter broke the plate" would be incomplete without "the plate". Thus, the intransitive aspect of reality is that aspect which 'just is'; it is an essence of the thing. The transitive aspect of reality is that component of reality which is formed through *relationships* with others and is the component of reality through which we must necessarily know the transitive aspect. This suggests epistemological fallibility since we can only know the intransitive reality through our transitive relationship with it.

The relevance of this position to environmental education and environmental research and, by implication, activism is significant. To illustrate its importance it might be useful to look at two specific instances of activism provided by Robert Mugabe and the anti-globalisation movement[5].

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[5]Whilst I do not claim that this example of anti-globalisation rhetoric is generally representative, I do claim that it is fairly typical of a certain type of theorising about globalisation which is based on the epistemological and ontological errors discussed here.

At the World Summit on Sustainable Development in Johannesburg in 2002, the President of Zimbabwe, Robert Mugabe made a speech which received a round of applause from the on looking reporters and African members of State. This was troubling. How could the speech of a President whose government stands accused of massive human rights abuses (Power, 2003) be so warmly received? Even more disconcerting was that Robert Mugabe's rhetoric at the World Summit was remarkably similar to the rhetoric of environmental lobbyists' advocating anti-globalisation, some of whom were also present at the same conference. Figure 3.1 below compares Mugabe's and Graham's words. Ironically, Mugabe's rhetoric is less angry and militaristic. If we examine the rhetoric of Graham and Mugabe, it is apparent that they assume the same syncretic movement between naïve realism and the lingistification of 'being', illustrated in Byatt's book and made possible by what Bhaskar (1989) calls the ontological and epistemological fallacies (Table 1). The ontological fallacy is what Star (1991) calls 'the return to a primitive realism'. The epistemological fallacy is perhaps what one might call an extreme poststructuralism, which insists that there is nothing truly real, everything is a construct, an illusion of linguistic activity. Mugabe and the extreme anti-big business lobby are juggling both these balls in one hand and therefore can never have both in hand at once (just as Phineas could never be with Fulla and Vera at the same time).

For example, Mugabe and the extreme anti-globalisation lobby are making an ontological error when they claim that big business or white-owned farms[6] must be, in the words of Graham, "extinguished" (this assumes the farms/businesses are absolutely real, without enough allowance for their constructed, networked, quasi-object[7] status - it may be a position overtly denied, but nevertheless implied by the rhetoric). They are also making a similar ontological error when they naively assume the existence of entirely innocent victims of the activities of the big business/white-owned farms.

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[6] I should add here that I agree with Mugabe and Graham that the problems associated with big business and white-owned farms need desperately to be addressed. My critique here is aimed at Mugabe's and Graham's methodology.

[7] Latour uses the term "quasi-object" to make explicit the networked/constructed component of all objects, without refusing those objects their existence as real entities (Latour, 1999).

Figure 3.1: Comparison of Mugabe's and Graham's speech

Excerpts from Mugabe's WSSD speech (2002)	Excerpts from Graham's anti-globalisation comment (2002)[8]
The multilateral programme of action we set for ourselves at Rio has not only been unfulfilled but it has also been ignored, sidelined and replaced by a half-baked unilateral agenda of globalisation in the service of big corporate interests of the North. The focus is profit, not the poor, the process is globalisation, not sustainable development, while the objective is exploitation, not liberation. *Comrade President, 10 years ,after Rio, the time has come for all of us to state quite categorically that the agenda of sustainable development is not compatible with the current dominant market fundamentalism coming from the proponents of globalisation…* *…It has become starkly clear to us that the failure of sustainable development is a direct and necessary outcome of a neo-liberal model of development propelled by runaway market forces that have been defended in the name of globalisation. Far from putting people first, this model rests on entrenching inequities; give away privatisation of public enterprises and banishing of the State from the public sphere for the benefit of* **big business**. *This has been a vicious, all-out, assault on the poor and their instruments of sustainable development. In Zimbabwe, we have, with a clear mind and vision, resolved to bring - to an end this neo-liberal model….* *Economically, we are an occupied country, 22 years after our Independence. Accordingly, my Government has decided to do the only right and just thing by taking back land and giving it to its rightful indigenous, black owners who lost it in circumstances of colonial pillage. This process is being done in accordance with the rule of law as enshrined in our national Constitution and laws. It is in pursuit of true justice as we know and understand it, and so we have no apologies to make to any one…*	*…it is time we defended ourself against a beast that is both practically, metaphorically, and linguistically military (the biggest businesses are military -- the bulk of trade in things is in military hardware). We did not declare war; they did. And they are winning. They have been winning for ages. If language and metaphor is a part of it, and I believe it is, then indeed this is site of contestation…* *(We) are reifying* **big business** *… by saying that they actually produce things. They don't. They don't do that anymore, at least not for the most part. That's one of Klein's points (in No Logo). It is a well documented fact. Most production is outsourced and contracted out to people who run teams of slave labour…We are part of Big Business only insofar as we are its prey. Only insofar as the food we eat is part of us. It passes through us. We eat it to survive. We last longer than the food we eat. Big Business consumes people to survive. It needs people to survive, but only as nourishment, as food, as prey.* *…No (destroying Big Business) won't (violently damage the body of society). Most big business are now banks or some other sort of financial institution. Hardly any of them produce anything at all except debt. Witness the massive private sector debt, historically unrivalled. (Big Business) should be stopped – immediately…Businesses are legal fictions. They are persons at law, with the same rights as people. That is the first fiction that should be abolished. Businesses exist at law. They can be extinguished at law.*

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[8] Graham's comment was not made at the conference, but on an online discussion group at around the time of the World Summit on Sustainable Development

Graham describes the victims as 'prey'; Mugabe's speech implies the existence of entirely passive indigenous people (one could imagine him calling them the innocent 'prey' of the colonialist regime). One of the linguistic strategies available to speakers guilty of this ontological error is the possibility of setting up a strong dichotomy, or simplistic oppositional, between the good guys and the bad guys. In this case, there is an oppositional set up between the innocent people or "prey" and the colonialists or big business.

However, both Mugabe and Graham assume that changing the legal (read: linguistic[9]) 'construction' of the big businesses or white-owned farms is the key way to extinguish these objects. For example, Graham states that "Business exists at law. It can be extinguished at law", and the main thrust of Mugabe's land-reform has been a legal one (Human Rights Watch, 2002). He states that the land-reform process will be done "in accordance with the law". This is the epistemological error of their analysis, since white-owned farms and big businesses clearly do have some sort of an existence beyond the law, although in acknowledging this it is not necessary to go to the extreme and deny that the law has no role in making reality. Mugabe's and Graham's assumption of the primarily legal status of the vilified object, which is therefore not real in a material sense, is a contradiction of the ontological error they make when they oppositionalise the 'really real' good guys against the 'really real' bad guys. For example, in Graham's analysis he warns us not to reify big business which "merely exist at law" and which "don't produce anything except debt", whilst at the same time reifying it himself as a primary cause of the world's problems. Bhaskar might call this a performative contradiction or a theory/practice inconsistency (Bhaskar, 1993).

3.2.2   The effects of a Machiavellian use of ontology

I can only provide the effects of performance contradictions and strong oppositionals in the case of Zimbabwe. Mugabe's most important move, true to the idea that the

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[9] In this case, the linguistic genre is that of the legal document. This genre has been given peculiarly strong powers to name/construct, but remains none-the-less linguistic.

commercial farms were primarily legally or linguistically constructed, was to change the law so that the farms were no longer controlled by the people who bought them but by the Zimbabwean government (Human Rights Watch, 2002).

Consistent with the belief (based on the epistemological fallacy) that the farms were primarily legally/linguistically constructed, along with the monocular vision (based on the ontological fallacy) that the commercial farms were *the* problem, Mugabe did not make adequate plans[10] for the changes that taking back of the land would bring (Human Rights Watch, 2002). Although there were some "plans" put together, they were not adequate (Human Rights Watch, 2002). This lack of planning is also suggested in Graham's comment, when he says that big business should be extinguished "immediately". This immediacy and "simplicity" is demonstrated by Mugabe in a speech he gave to much applause at a rally in Northern Namibia:

> *It is a simple solution…if they (the white commercial farmers) are ready to discuss with you and give land then there is no need for a fight. But in Zimbabwe the British are not ready and we are making them ready now.* (Mugabe, BBC News, 26 May 2000)

In the vacuum left by the over-simplification and lack of planning there existed a blindness, which allowed corruption to thrive (Human Rights Watch, 2002). For example, in the absence of an adequate plan, Zimbabwean farms have often not been handed to the poor people but rather to the Ministers of State and important Zimbabwe African National Unity – Patriotic Front (ZANU PF) officials and supporters. The following report by SW radio Africa serves to illustrate this point:

> *Parliament was debating the Land Acquisition Amendment Bill, which seeks to amend a previous Land Amendment Act - both of which deal with the "fast-track land reform programme" which has so devastated the agricultural industry and the economy… As soon as Chinamasa began his speech, opposition legal affairs spokesman David Coltart raised a point of order. In*

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[10] By "plans" I do not mean expert-driven, rationalistic plans, assuming naïve cause and effect; but stakeholder-negotiated, contextualised, open-ended plans of process with structures for constant reflexive evaluation.

terms of Clause 17 of the Parliamentary Privileges and Powers Act, it is a criminal offence for any MP with a financial interest in a Bill to contribute to or participate in debate. Coltart tabled a list of MPs, and the farms they own, and pointed out that Chinamasa owns three farms taken under the "fast-track" land expropriation. The list was then grabbed by Jorum Gumbo (Zanu PF) who started remonstrating with other Zanu PF members about its contents. Chinamasa called Coltart a "racist liar", and three opposition MPs - Tendai Biti, Gabriel Chaibva, and Willias Madzimure - were expelled from the House for arguing with the chairman.
(SW Radio Africa, 22 Jan 2004)

Since the white-owned farms' status as mere legal constructs was untrue, Mugabe needed there to be an 'invisible' (from his side) but nevertheless very material removal of the individuals in the commercial farms/multinationals, if they refused to go peacefully. Therefore, on the one hand he claimed a lack of direct involvement in the violence (how could he be blamed when war veterans acted out of frustration?), whilst on the other hand he incited violence covertly, such as by using the Shona language at rallies (to perhaps prevent people from other countries, who would not understand the Shona, from understanding it), or by ensuring that people interested in carrying out violent acts knew that they would not be prosecuted[11]. This is illustrated by the following comment by a member of Zimbabwe's youth militia:

> *It was about vandalism… We were used to do the things the State does not want to do themselves. Then they can just say ' it was just the youth, not us'…We are Zanu-PF's 'B' team. The army is the 'A' team and we do the things the government does not want the 'A' team to do…We got a lot of power. Our source of power was this encouragement we were getting, particularly from the police and others… it was instilled in us that whenever we go out, we are free to do whatever we want and nobody was going to question that.*
> (Solidarity Peace Trust, 2003)

And in Mugabe's words:

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[11] This is an example of how Mugabe cunningly kept separate the naively realist approach (which allows violence to be enacted upon a simplistically oppositionalised 'other' – the white farmers) and the linguistification of reality approach (which allows the white owned farms to be erased simply by changing their legal status).

> *We ...faced farmer resistance, whose manifestations included not just the legal challenges I have already referred to but also resistance to the land clause we had introduced in the rejected draft constitution. Naturally, this has created frustration leading to the current spate of farm occupations by the war veterans and sporadic clashes in which two lives have regrettably been lost. We can understand the frustrations of the war veterans, just as we appreciate the pressures faced by the commercial farmers.*
> (BBC news, 18 April 2000).

Broad destruction of key economic structures occurred in Zimbabwe (Human Rights Watch, 2002; Power, 2003) possibly because Mugabe's methodology disallowed acknowledgement of the likelihood that those objects identified as the enemy were sustained by *as well as sustaining of* the other quasi-objects around them. If the argument presented here is correct then it seems possible that Mugabe, naively, might not have suspected such destruction. In much the same way, Graham naively denied the possibility that erasing big business at law would have far-reaching, devastating effects on the world economy. We can imagine Mugabe using a similar argument to Graham: that we need not worry about a decrease in agricultural production since the farmers were not producing, but rather it was the land/Zimbabwean workers who were producing.

To ameliorate the political impact of such destruction, Mugabe has had to make excuses for the dissolution of the Zimbabwean economy by blaming it on the actions of others. For example, he has blamed it on the drought (BBC news 16 December 2002) and even on the activities of gays and lesbians (BBC news, 14 May 2003).

Finally, after the removal of white landowners from their land, what has *not* been changed in Zimbabwe are *the relations* of inequality amongst the various quasi-objects. Ironically, the actual farms still exist (even to the extent, at present, of still being known by the names given to them by their original white owners) as do the land-owners (although now predominantly black rather than white, and with perhaps a different legal status, not yet completely determined). Although it is hard to predict how this will end, there seems to be evidence that inequality will continue, with

economic power shifting superficially from one group to another, from the white land-owning elite to a new black land-owning elite. This can perhaps be explained if we assume that *relationships ontologically precede the quasi-objects* (Bhaskar 1989, 1993; Sayer, 1991; Haraway, 1991, 1997; Bourdieu, 1998). In other words the quasi-objects do not exist absolutely in a naively realist way but are constantly being transformed and/or reproduced by their relationships with each other. If a social movement fails to redefine the way the quasi-objects *relate* to each other, there appears to be a strong risk that only superficial changes will be made. Table 3.2 summarises the different ontological and epistemological assumptions of the anti-globalisation and land reform political enterprises. It also summarises my suggestion for an alternative politics.

3.3   CONCLUSION

Instead of the dishonest ontological and epistemological movement[12], illustrated by both Graham and Mugabe (and Phineas's love affairs), I am arguing for a simultaneous bringing together of the two ontological/epistemological approaches, so that they are present in our analyses at the same time, and no sleight of hand is required. Phineas takes this path, at least methodologically, when he realised that he had in some ways invented Vera and Fulla but in some ways they were entirely independent. Bruno Latour (1999) emphasises the constructed and real aspects of all objects (human and non-human) by talking of *quasi-objects*. I think that it is not

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[12] Bruno Latour describes a person involved in this sort of dishonest critique as: "…one who alternates haphazardly between antifetishism and positivism like the drunk iconoclast drawn by Goya". Instead, Latour 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 (Latour, 2004:246). In acknowledging the haphazard alternation between the two extreme methodologies, Latour dismisses the temptation to say that it is just the bad guys who are guilty of it. Rather he asks himself also where *his* critique of science went wrong and assisted in making this alternation possible. He says: "Should I reassure myself by simply saying that bad guys can use any weapon at hand, naturalized facts when it suits them and social construction when it suits them? Should we apologize for having been wrong all along? Or should we rather bring the sword of criticism to criticism itself and do a bit of soul-searching here: what were we really after when we were so intent on showing the social construction of scientific facts?" (Latour, 2004:227)

merely intellectually more correct to bring the two sides together simultaneously, but a moral[13] imperative.

Haraway's (1991, 1997) interpretation of this methodological approach is valuable here. With regard her vision of a utopian politics[14](1991), she writes:

> *From the perspectives of cyborgs, freed from need to ground politics in 'our' privileged position of the oppression that incorporates all other dominations, the innocence of the merely violated[15], the ground of those closer to nature, we can see powerful possibilities. Feminisms and Marxisms have run aground on Western epistemological imperatives to construct a revolutionary subject from the perspective of a hierarchy of oppressions and/or a latent position of moral superiority, innocence and greater closeness to nature…to recognise 'oneself' as fully implicated in the world, frees us of the need to root politics in identification, vanguard parties, purity and mothering.*
> (p 176)

> *…a cyborg world might be about lived social and bodily realities in which people are… not afraid of permanently partial identities and contradictory standpoints.* ***The political struggle is to see from both perspectives at once***

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[13] Morality is a quasi-object itself, both real and constructed. Absolute morality of the naïve realist sort and completely made up morality of the post-modern, relativist, sort are equally untenable. I think it is vital (as in 'life affirming') to speak of morals (albeit the non-absolutist sort). Avoiding talk of morality for fear of making the severe mistakes of absolutist morality, puts us into a soup of "anything goes", in which violent atrocities can be conducted. Hence, I subscribe to a return to talk of morality, but a *qualified morality* with none of the self-righteousness of a "morality" handed down from above (see also "Ethics Unbound: For a Normative Turn in Social Theory", Sayer, 1991: 172-188).

[14] Mahatma Ghandi's political position of non-violent non-co-operation, which implies a change in the relationship between the various players in the oppressive situation, might be a real-life example of this sort of political approach. Some quotes from The Official Mahatma Ghandi eArchive, 18 January 2004, which lend to support this suggestion include: *"I believe that cunning is not only morally wrong but also politically inexpedient, and have therefore always discountenanced its use even from the practical standpoint"* (perhaps parallel to an avoidance of the Machiavellian-style pragmatism I associate with amalgams of naïve realism and the linguistification of reality). Also, *"Non-cooperation is an attempt to awaken the masses, to a sense of their dignity and power"* and *"How can one be compelled to accept slavery? I simply refuse to do the master's bidding. He may torture me, break my bones to atoms and even kill me. He will then have my dead body, not my obedience. Ultimately, therefore, it is I who am the victor and not he, for he has failed in getting me to do what he wanted done"* (perhaps parallel to the assertion that the apparent victims are not without personal power – they are not, in fact, simply victims, but have an implicit role to play in their oppression). Finally, *"You must be the change you wish to see in the world"* (perhaps parallel to the assertion that even the quasi-objects effecting the change must themselves be changed in the process, as we are all implicated in the world).

[15] This assumption of the existence of an innocent victim is present both in Graham's statements, where he describes us as the mere 'prey' of big business and in Mugabe's speech, where 'the poor' are positioned merely as passive recipients of the West's globalising aggression.

> **because each reveals both dominations and possibilities unimaginable from the other vantage point.** *Single vision produces worse illusions than double vision or many-headed monsters. Cyborg unities are monstrous and illegitimate; in our present political circumstances, we could hardly hope for more potent myths for resistance and recoupling.*
> (my emphasis, p154)

As Bruno Latour said recently: "Can we devise another powerful descriptive tool that deals this time with matters of concern and whose import then will no longer be to debunk but to protect and to care, as Donna Haraway would put it?" (Latour, 2004:232). In our roles as Environmental Education researchers and activists, we would do well to join Latour and Haraway in their efforts. This would mean that, instead of critically casting blame onto 'objects' (of the naively real variety), and then suggesting a voluntaristic sleight of hand to remove those objects, we should rather look into the *space* between the quasi-objects. "The notion of *space* contains, in itself, the principle of a *relational* understanding of the social world" (Bourdieu, 1998:31). We should also look from several points of view as well as our own, and attempt to change the *networked relationships*, aiming for an outcome that will allow changes in the way, for example, 'big business' or 'white farmers' enmesh with us, so that the world is a better place. This may, or may not, require that these quasi-objects be transformed beyond recognition. Change is a question of degree and direction (implying an acknowledgment of the unavoidability of history and context) rather than an absolute excision of an offending object. Since "the arrow goes both ways" (Haraway, 2003) this requires changing our actions and natures as well as those of the quasi-object/s we question (we are quasi-objects just as they are). It also requires listening to the stories being told by all the relevant quasi-objects.

Political focus	Ontology and epistemology	The object/s causing the hegemony	Victim/oppressor assumption	The solution to the problem	Effect
Anti-colonialism (e.g. Mugabe)	Alternating pragmatically between critical theory and extreme interpretations of poststructuralism (oscillation between the ontological and epistemological fallacies)	White owned farms (individual white farmers) – ontological error	Clear victim and oppressor dichotomy (victims are the landless Zimbabweans) – ontological error	Erase the white-owned farms at law, assuming a naïve voluntarism – the farms are merely legal fictions. Use war metaphors to invoke public support	Violent revolution[16]
Anti-globalisation (certain environmentalists)	Alternating pragmatically between critical theory and extreme interpretations of poststructuralism (oscillation between the ontological and epistemological fallacies)	Multinational corporations (Chief Executive Officers) – ontological error	Clear victim and oppressor dichotomy (victims are the poor, especially in the developing countries) – ontological error	Erase the multi-nationals at law, assuming a naïve voluntarism – the multinationals are merely legal fictions. Use war metaphors to invoke public support	Violent revolution
For want of a name, perhaps we can call it 'relational politics'	Critical realist-style methodology; relationships ontologically precede quasi-objects, and either transform or reproduce them	The relationships[17] between/amongst the various quasi-objects participating in the hegemony	There is not a clear victim/ oppressor dichotomy (everyone is implicated); different quasi-object groupings will experience different effects of the mal-functioning relationships	Change the relationships, simultaneously changing the quasi-objects.	Non-violent political change

Table 3.2: An outline of characteristics associated with politics based on different ontological and epistemological assumptions

[16] Responsibility for this violence can be denied by the leaders of the revolution because they can claim that their only action was to exterminate the legality of the farms or the multinationals.

[17] Rodolfe Gasche notes that there is a long history of discussion about the philosophy of relations. He explains that Plato and Aristotle discussed the subject of relations and in the fourteenth century, medieval thought even underwent a passionate debate on relations, in which realist and conceptual theories of relation were pitted against each other. However, a full-scale philosophical discipline exclusively devoted to relations emerged only in the nineteenth century in the work of Augustus de Morgan, Charles Sanders Peirce, Gottlob Frege and Ernst Schroder (Gasche, 1999:1). Gasche considers relation to be "a minimal thing" - he calls his book "Of minimal things: studies on the notion of relation".

CHAPTER 4 PARTICIPATORY CURRICULUM DEVELOPMENT: LESSONS DRAWN FROM TEACHING ENVIRONMENTAL EDUCATION TO INDUSTRY IN ZIMBABWE.

4.1   ABSTRACT

My experience of teaching the Rhodes/Speciss Environmental Education (RSEE) Course alerted me to a tension between the industry course participants who largely (although not entirely) wanted a skills/vocational training orientation and the course curriculum developers, who wanted a critical/theoretical/praxis-based orientation to the course. This paper is an attempt to offer some resolution of the dilemma this provided the course developers. I begin by briefly positioning the tension historically and internationally and giving an outline of Fairclough's (1999) position in its regard. I then suggest that a conventionalist interpretation of the participatory/contextualist method of curriculum development should be avoided, arguing that conventionalism is covertly anti-epistemological in that it leads to the thesis that epistemic standards do not rest on truth/validity claims but on convention (Haack, 1993: 20). Thus contextualisation, interpreted as conventionalism, becomes inherently conservative. Instead I suggest an approach to curriculum development based on Haack's (1993:73) explicandum of epistemic justification: "A is more/less justified, at time t, in believing that p, depending on how good the evidence is". Thus, if there is good enough (note: not absolute) evidence to disagree with the community's construction of what the best curriculum should be, provided we can demonstrate our disagreement with intellectual integrity, then it is appropriate to go against the grain of the majority of the community's construction of its curriculum needs (in this case, the call for skills-based training), and instead attend to the requirements of a minority of the community.

4.2   INTRODUCTION

This curriculum development story comes from my experience of running an environmental education course[18] for industry and non-industry educators in Zimbabwe. Specifically, this story analyses the tension between the industry course participants and the course developers: the former looking for a skills/vocational training orientation to the course; the latter preferring a critical/theoretical/praxis-based orientation. As one of the people involved in developing the curriculum, the tension placed me in a tricky position and this paper is the outcome my thinking as I tried to answer the question: "Should we completely change the curriculum to suit mainstream industry?"

4.3   SHOULD WE COMPLETELY CHANGE THE CURRICULUM TO SUIT MAINSTREAM INDUSTRY?

4.3.1   **Vocational vs. Praxis-based education**

At an international and historical level, the curriculum dilemma of whether or not a vocational, skills-based curriculum is preferable to a curriculum which builds skills into a broader critical and theoretical (praxis-based) programme is an old and on-going one (Cherrryholmes, 1988; Cornbleth, 1990; Usher and Edwards, 1994; Lotz and Janse van Rensberg, 1998) and often includes the question of how much authority should be claimed by course developers, rather than the course participants, to choose the options available in the curriculum content. Currently, many learning institutions are faced with a new imperative to mediate this dilemma as global market forces enter the academic realms, and schools and universities are forced to see themselves as businesses first, learning institutions second. Fairclough (1999:10) states that there is

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[18] The RSEE course was designed by Rhodes University, South Africa, in their Environmental Education Unit, where it has been offered to participants from a wide variety of backgrounds for over a decade. It was originally called the Goldfield's Participatory Environmental Education Certificate Course, or the Goldfield's Course for short. In Zimbabwe, the course was established in 1996 and to date more than 130 people have successfully past through it. It is a participatory course, which means that to some extent the contents are determined by the needs of the participants in each year. This is achieved through course evaluations and ongoing negotiations with participants through the year.

a "…contemporary tendency of the purposes of education to narrow down towards serving the needs of the economy." In this economic environment, a course can only be run if it has enough attendance to be financially viable. Thus, the issue of 'participation' is a key one and the distinction between *participatory* development of curriculum and *market research* development of curriculum seems to have become blurred; they both, supposedly, empower the course participants by providing them with the sort of education they want.

In Zimbabwe the trend towards skills-based training is evident in the call for "practical skills", placed as an often unspoken opposition to 'too much theory' (Price, 1998; Price, 2000). Jenkins made a similar discovery in her analysis of a South African version of the RSEE course. She found that the aim of the industry participants at the start of the course was to develop teaching *skills*, whilst the course tutors had a different aim, which was to "transform their (the participants') workplace practices and to facilitate change at a meta-level" (Jenkins, 2000:122, bracketed insert mine).

Fairclough states:

> *Recent educational reforms have sharply raised the question of what education is for, and for whom. The dominant view of education…sees it as a vocationally-orientated transmission of given knowledge and skills. What is perhaps most distinctive about this view of education is its focus upon the teaching and learning of 'key skills' which are seen to be transferable from one sphere of life to another, and as the basis for future success including lifelong learning. Given that one of these skills is 'communication'…this view of education rests upon the view of discourse as 'communication skills'.*
> Fairclough (1999:8-9)

Fairclough explains that there are problems with seeing discourse as communication skills. First, it assumes that a communication skill can be freely transferred from one context to the other. Second, it assumes that there is a simple relationship between what is actually said (or more generally done) in the course of some social practice and skills internalised as models of how to do/say it – that discourse is mere

instantiations of such models. On the contrary, discourse is a complex matching of models with immediate needs in which what emerges may be radically different from any model, ambivalent between models, or a baffling mixture of models, and where flair and creativity may have more impact that skills. Third, and most seriously, it assumes that discourse is a mere matter of technique and does not acknowledge that any use of language has implication for the power relationships amongst the participants.

Fairclough states:

> *From this point of view, any reduction of discourse[19] to skills is complicit with efforts on the part of those who have the power to impose social practices they favour by getting people to see them as mere techniques.*
> Fairclough (1999:9)

4.3.2 Participatory curriculum development

As a curriculum developer, the call for more skills and less theory, given Fairclough's analysis, appears misinformed, yet "participatory" and "contextualisation" popularist trends in curriculum development would tend to insist that we heed these calls for *skills* training as the largest imperative: it is what most[20] industrial participants say they want.

O'Donoghue had this to say about participation:

> *Participation has emerged as a somewhat obsessive imperative that has seemingly shaped a merry-go-round of consultative inactivity (Human, 1998).*

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[19] In this case, we are considering the reduction of the discourse of *environmental education* to a set of skills.

[20] It would seem that this is the position of a majority of industrialists, but by no means all. In the Zimbabwean course, some industrial participants were strongly appreciative of the praxis-based approach and specifically mentioned it in the evaluation as being hugely valuable (Price, 2003). In both the Zimbabwean and South African industry courses there were cases where participants started out thinking the course was too theoretical but later changed their minds and found that they appreciated the theory (Rhodes/Speciss participants 2002 pers. comm.; Goldfields Industry course evaluation, 1999, unpublished)

> *To understand this emerging focus on participatory processes, one has to look at developing axes of tension in environmental education. These have shaped people-centred imperatives which on the one hand resist any form of determinism, whilst on the other, impose community participations as a more relevant form of determinism in a democratic South Africa.*
> O'Donaghue (1999:15)

O'Donoghue has here shown 'participation', as he has experienced it in South Africa, to be an example of what Bhaskar might describe as a pseudo-dialectical hybrid between "…a double set of paired mistakes: the ontological errors of reification and voluntarism and the epistemological ones of (social) determinism and (methodological) individualism" (Bhaskar, 1989:93).

Fortunately, taking a less popularist approach to choosing course curriculum is defendable. I do not advocate a return to foundationalist arguments which claim that the curriculum developers are the only one's with the expertise to develop curriculum, but I do suggest that the frequently heard call for *contextualisation* of curriculum, has become a call for *conventionalism*. And I consider *conventionalism* to be *covertly anti-epistemological* in that it leads to the thesis that epistemic standards are not objective[21] but conventional (Haack, 1993: 20). *Contextualisation*, interpreted as *conventionalism*, becomes inherently *conservative*.

In other words, I argue that the choice of the 'best' content for an environmental education course for industry is not necessarily achieved by appealing to what the majority of industrialists consider to be the best choice (conventionalism). For those course developers wanting to facilitate change at a meta-level, it seems reasonable that the epistemological criteria for choosing the best content would have to be based on criteria other than *only* the community's dominant views on what is best. This is not to say that there shouldn't be some attention given to industry's construction of its needs, merely that the curriculum choices should not be made exclusively on these criteria. This is based on Haack's (1993: 73) explication of epistemic justification,

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[21] Here I use the word 'objective' with all the caveats and restrictions outlined by Sayer (1991:58-61). He says, "…although the quest for objectivity$_2$ (a synonym for 'true') has its limits…it is certainly not dispensable for social science".

which is: "A is more/less justified, at time *t,* in believing that *p*, depending on how good the evidence is". This *explicandum*, as Haack explains, implies some important presuppositions, namely, that: "it is a *personal* locution, not an impersonal locution like 'belief that *p* is justified' which is primitive; that justification *comes in degrees*; that whether or to what degree a person is justified in believing something *may vary with time*" (Haack, 1993: 72; my italics). Thus, if there is *good enough* (note: not absolute)[22] evidence to disagree with the community's dominant construction of what the best curriculum should be, provided we can demonstrate our disagreement with intellectual integrity, then it is appropriate to go against the grain of the community's dominant construction of its curriculum needs, and instead attend to the requirements of a minority of the community.

If we were to try and boost industry's attendance by following the call to '*contextualise*' the course and, through '*participatory methods*'[23] identify the needs of industry, thus giving industry only what the majority of industrialists want (namely training in environmental education skills), we would be supporting a conservative position, which I trust I demonstrated earlier, would not be in line with what could be considered best for society as a whole. As Lotz Sistka notes:

> *…Environmental training in industry can no longer trundle along 'business as usual' pathways, nor can it ignore changes in education and training policies or environmental practices…new orientations to environmental education and training are more likely to support a reorientation of environmental management process.*
> Lotz Sistka (1999)

The industrial learner who wants a broader, more critical, education based on these "new orientations to environmental education and training" would not get such an opportunity if we were to follow the conventionalist (read: default mode

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[22] As Latour (1999:12) explains*: "…* 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?"
[23] I have placed the terms 'contextualise' and 'participatory methods' in scare quotes to indicate that I am not necessarily against *contextualisation* or *participatory methods* – I am merely critiquing a particular interpretation of these terms. For a discussion of an alternative interpretation of these terms see Lotz Sisitka *et al*, 2003.

'participatory' and 'contextualist') methods of curriculum development. Attending to the requirements of a minority of the community may mean that the course will not be hugely well-attended by the community, but it will also mean that the minority members of the community, who have more in common with the course developers (in terms of their aims) will have an opportunity to obtain the education they prefer. Thus, in this formulation of democracy, the focus is on the provision of choice, rather than 'majority rule'. This is also a commentary on the trend to provide curriculum as a marketed consumer product, that is, curriculum supported by the (moneyed) majority, as this risks the loss of curriculum with the potential to transform, rather than reproduce, society.

4.3.3 In defence of reason

An objection that I envisage to the idea of using *intellectual integrity* to guide curriculum development is that several authors have shown how 'reason' has been used to justify particular worldviews which protect the interests of the elite, for example, Foucault (1984), Hodge and Kress (1988) and Fairclough (1989). Whilst I fully support these authors in their analyses, this fortunately does not require that we reject our commitment to intellectual integrity: thus would we also reject any hope of transforming societal inequalities. Authors who employ the truism that reason has been misused to argue against the possibility of any sort of truth, implying that to call a statement true "is to give it a rhetorical pat on the back" (Rorty, in Haack, 1998:7), are guilty of what Haack calls the " 'passes for' fallacy" which is:

> *...the fallacious inference from the true premise what has passed for relevant evidence, known fact, objective truth, and so forth, sometimes turns out to be no such thing, to the false conclusion that the notions of relevant evidence, known fact, established truth, etc., are revealed to be ideological humbug.*
> Haack (1998:117)

4.3.4 **Marginal courses and their economic viability**

Another argument I anticipate against the sort of curriculum development I am suggesting is that courses will not be economically viable in instances where they are not supported by a large number of consumers. I think that there are ways to mitigate this problem. For example, in the RSEE course, it has been possible to keep the industry component going through the attendance of the non-industry participants: if we were to rely only on the industry participants the course would possibly not be well-attended enough to be viable. The problem could perhaps also be ameliorated by better publicity, explaining the need for such courses, and through external funding.

4.4   CONCLUSION

Academic/critical-style course developers looking to develop courses in environmental education for industry, may want to hand over the usual types of industry environmental training courses to the commercial colleges who will be able to give their *clientele* their familiar, skills-based environmental training courses. Assuming the aim of the academic/critical-style course developers is, as Jenkins (2000:122) found, to "transform the participants' workplace practices and to facilitate change at a meta-level", and given the support for this position in academic literature, it would be more appropriate for the academic/critical course developers to fund and support courses which give industry alternative approaches to environmental education. These courses may not be well-attended by industry but they would give those industrialists, committed to transforming their workplaces, a learning opportunity they otherwise would not have, and assist them in their transformative endeavours.

CHAPTER 5 POSTSTRUCTURAL EXPERIMENTS IN TRUTH[24] IN ENVIRONMENTAL EDUCATION

Originally given as a paper:

Price, L. (2004c). *Poststructural experiments in truth in environmental education*. Paper prepared for the PhD week, Environmental Education Unit, Education Department, Rhodes University, 22 - 24 March 2004.

> *The agnostic option of bracketing out questions regarding the truth or practical adequacy of the discourses under investigation has become popular, particularly in sociology.*
> (Sayer, critical realist, 1999:49,50)

5.1   INTRODUCTION

In this paper, I discuss the consequences for environmental education[25] research of the linguistic fallacy, which is the definition of being as our discourse about being (Bhaskar, 1993:111) and which I associate with popular interpretations of poststructuralism. I make particular reference to the linguistic fallacy's assumption, often not explicit, of an irrealist ontology. This irrealism is a conclusion drawn, many would argue incorrectly, from statements such as those made by the founder of poststructuralism, Derrida, that there is no such thing as reality, but rather 'reality' is 'language all the way down' (Norris, 1996).

Quantum physics, or rather, the Copenhagen interpretation of quantum physics, is commonly quoted in epistemological discussions amongst educational researchers to hint at the possibility that there is no reality beyond the observer. For example, in the paragraph after Lather refers to quantum physics, she (1991: 105) makes the following statement: "Objectivity 'creates its object to be objective about'".

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[24] In this paper I have assumed that issues of validity are related to our beliefs about truth.
[25] I define environmental education very broadly, and draw examples from authors who define themselves as environmental education researchers, as well, as those authors whose interest is in education more broadly but whose work has strongly influenced environmental education thinking is recent years, especially in this university department.

However, these references to quantum physics in environmental education research do not take into consideration alternative interpretations of quantum physics. The reason we have not listened as well we might to what is going on in the field of quantum physics is because the Copenhagen interpretation of quantum theory is often presented as *a fait complete:* the only position any physicist should hold. As Davies and Brown (2000:x) remark in their book on quantum physics "several of our contributors (who shall remain nameless!) expressed the view that there is now no real doubt over how quantum physics should be interpreted".

However, the interpretation of quantum physics, and its consequences for our understanding of reality, is far from decided. It is this debate, within physics, which has interesting parallels in environmental education research. This paper is similar to the paper that Gough (2002) wrote on the parallels between education research and detective fiction. He noticed similarities between what he was thinking about in education research and the detective fiction books he was reading. Here I notice similarities between education research and physics (see also Shipway, 2002). This is more than saying that physics offers a useful metaphor for education; it is based on the idea that the two disciplines are intertextually linked. Norris (2000) has also noted this intertextual similarity. He agrees with my conclusion, that the best interpretation of quantum physics for methodology is not the mainstream Copenhagen interpretation, but rather Bohm's interpretation. This interpretation assumes the existence of an implicate order and non-local connections, or, in other words it assumes that relations exist before objects.

Interestingly, the founders of poststructuralism and quantum physics have never been so bold as to imply that their theory requires the epistemologization of reality, and rather than agnosticism they fall out-right on the side of realism. Einstein's famous debate with Niels Bohr is an example. Einstein always maintained that the way in which quantum physics was being interpreted was incorrect, that its implication that the observer determined reality, was incorrect, and that therefore there must be an incompleteness within the theory of quantum physics itself (Davies and Gribbin, 1992:21). "Surely", Einstein once asked, "the moon exists whether or not somebody is

looking at it?" (Davies and Brown, 2000:30). Likewise, Derrida has consistently denied the anti-logic or anti-ontology ascribed to his work by readers (Norris, 1996:248)

I make this point because I think it is important to establish that my argument here is not so much aimed at all aspects poststructuralism, but at poststructuralism as it has been popularly interpreted, i.e. irrealist poststructuralism. Indeed, I think it would be a mistake to throw out all that poststructuralism has taught us. Norris prefers to use the term 'deconstruction', rather than 'poststructuralism', to indicate his distance from the non realist poststructuralist interpretations, whilst keeping the useful aspects of poststructuralism:

The assumption of an irrealist ontology allows for the researcher to avoid gathering and analysing quantitative data. This may seem to simplify research. For example, it makes statistical analyses redundant. The recent dominance of the linguistic turn in the field of environmental education is possibly associated with the strong trend away from quantitative research, such that most recently there has been no quantitatively based environmental education research in Southern Africa. Nevertheless, poststructural irrealism results in other difficulties for researchers, not least the contradiction in researching a world that does not really exist. The way that these difficulties are dealt with can, very roughly, be conceptually separated into three general categories. I will call these categories experiments and I distinguish between them for heuristic purposes. In practice they are closely intertwined, perhaps never existing separately:

- agnostic poststructuralism,
- mind-over-matter poststructuralism, and
- super determinist poststructuralism.

5.2   THE AGNOSTIC POSTSTRUCTURALIST EXPERIMENT

For many poststructuralists in environmental education research, the easiest way to deal with the paradox inherent in their worldview is to maintain an agnosticism on the question of reality. In their work, they use a theory which implies that reality is merely a consequence of epistemology (faithful to their agnosticism, they are rarely pinned down to an actual statement to this effect), but in their everyday lives they act as if reality really exists. Bhaskar (1993:117) might call this sort of contradiction "a *performative contradiction* – or theory-practice inconsistency".

The performance contradiction required by this agnostic pragmatism can result in a 'dialectic', or a vascillation between the extreme anti-realist position that language-mediated power relations create reality and the naïve realist position in which there is a transparent, simple relationship between real, outwardly existing, objects and language, that is, the world determines what it is and what we say about it.

Popkewitz and Brennan (1998), provide a good example of this sort of pragmatism. Using the work of Foucault, they advocate for education research that includes both power as 'sovereignty' and power as 'deployment'. In its incarnation as 'sovereignty', power for them (1998:17) is "'something' that people own, and that ownership can be re-distributed among groups to challenge inequities", i.e. this is the naïve-realist side of their position. In its incarnation as 'deployment', power for them is productive (1998:19), "The effects of power to be found in the production of desire and in dispositions and sensitivities of individuals". In this conception there is no recourse to truth or reality, all that there is, is the effects of power (i.e. there is no such 'thing' as power). Thus, (1989:19) "…the concern is not to find the origin of repressive mechanisms…(but to find) how 'sense' is produced through the complex inscriptions of power relations." This is the irrealist side of their position. Although Popkewitz and Brennan (1998) offer criticisms of the 'sovereignty' view of power, they do not critique the 'deployment' view, which has their intellectual approval. For them, acknowledging a role for power as 'sovereignty' is a pragmatic necessity; whilst they remain none-the-less true to an intellectual commitment to power as 'deployment'.

Their theory implies that power does not really exist, but sometimes they must pretend to believe it exists to achieve strategic aims[26].

Apart from the performance contradiction implicit in the oscillation between realist and anti-realist positions, there are also ethical concerns associated with it. This is because we can choose whether something is "real" or "constructed" depending on what would suit our agenda. For example, I have shown in a previous paper (Price, 2004) that Robert Mugabe used this oscillation to great advantage. For Mugabe, sometimes the Zimbabwean farms were mere constructs, which did not exist until after colonialism, and only then as legal entities – thus all he had to do was change the law to return the farms to their rightful owners. This, he claimed, was a peaceful process. However, since the farms were not just constructions, but had a material existence, he needed to mobilise to have their occupants physically removed, if they did not go of their own accord. Just changing the law did not remove the farmers. He then had to strategically talk about the farms as naively real entities, "things" to be fought for and the farmers became naively real "things" to be eliminated. This elimination has been carried out by frustrated folk who became tired of waiting for the legal decrees to take effect, thus, apparently keeping Mugabe's hands clean. All he did, he can claim, was change the law. How can he be blamed if people became frustrated?

However, as Sayer (1999:71,72) has pointed out, some agnostic postmodern researchers, understandably, refuse to choose between the two extremes of naïve realism and anti-realism. These authors argue that answers cannot be expected and instead we merely must persist with open-ended, sceptical questioning.

This approach was common when I first came to environmental education. For example, we were encouraged to end papers and discussions with questions. In teaching participants of the Goldfields Environmental Education Course, rather than

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[26] The critical realist concepts of, *inter alia*, a stratified reality and the transitive and intransitive aspects of reality allow us to avoid the oscillation between naïve realism and anti-realism. However, it is not the scope of this paper to discuss these concepts in detail.

putting forward our theories about the world, we were encouraged to use questions to open debate on issues. Lotz-Sistka (1999:18) illustrates this position when she writes at the conclusion of her paper: "In 'ending' this narrative, I wish to tentatively open up aspects of this latter challenge for further consideration and debate." This was a useful strategy which ensured pluralism and avoided dogmatism. However, it tended towards relativism, and thus a lack of ethics, for how can we make ethical choices when there is no possibility to choose between better and worse theories.

5.3 THE MIND-OVER-MATTER POSTSTRUCTURALIST EXPERIMENT

This position openly admits that there is no reality beyond what our minds construct, that is, there is no reality beyond our mind's representations. It therefore openly admits to the linguistic fallacy. It is attractive because it seems to allow a movement beyond the dualism of Descartes concept of mind-body; there is no mind-body split as everything is mind/language. However, it contradicts a common-sense intuition that we have in which we are not able to "think" or "speak" things into reality.

Baudrillard's hyperreality (in Poster, 1988) is perhaps one of the most obvious examples of this approach. It can be found in more extreme versions of poststructuralism and post-modernism, although in practice, as mentioned above, poststructuralists and post-modernists must necessarily contradict this lack of belief in their daily lives. Therefore, in practice, this approach is hard to distinguish from the agnostic approach above. What distinguishes them is that the agnostics do not openly admit their lack of belief in reality beyond language. An example of the mind-over-matter approach in environmental education is to be found in the work of Usher and Edwards (1994), as these quotes illustrate:

> *Post-modernism goes beyond anti-realism. It questions representation and the underlying belief of a reality that is independent of representation yet capturable by it. However, it also puts forward the notion of a reality constructed by representations and therefore of multiple perspectives where representations become reality and where reality is always, necessarily, represented.*
> (p14)

The 'truth' of research is an outcome of textual strategies rather than the extent to which the text faithfully represents 'reality'.
(p150)

However, a poststructural or post-modern researcher cannot stay purely with this extreme version of irrealism if they hope to change in the world. One way to effect change but remain true to the idea that there is no reality beyond representation is to link representation with the desire to dominate or the "will-to-power", rather than with reality. Therefore, a type of pragmatic position tends to be adopted in practice, with Foucault's operations of power replacing reality (Usher and Edwards, 1994:16-18). This requires that researchers interrogate their own desire to dominate evident in their own texts. Thus, these researchers are left with an unanswerable question, illustrated by the words of Lather (1991: 16), "It is precisely this question that the postmodern frames: How do our very efforts to liberate perpetuate the relations of dominance?" Either the post-moderns must dominate in their efforts to liberate, or they must ignore resistance and be faithful to the ludic aspect of post-modernism in which joyful playfulness incidentally celebrates the status quo (Usher and Edwards, 1994: 15, 16).

A way out of this contradiction is to embark on yet other kinds of pragmatisms, such as those which advocate that we are justified in our choice of truths if those truths serve humanity (e.g. Lather, 1991; Harding, 1991; Doll in van Rensburg, 1995:167), begging the question of how we will tell what is best for humanity (Peirce in Haack, 1998: 109). Or, those pragmatisms which suggest that the measure of truth is the degree to which it is aesthetic (e.g. Cherryholmes, 2001), begging the question of whose idea of beauty should be used (Masuchika Boldt, 2001, internet paper). Sauve's (1999) conception of a reconstructive (rather than a deconstructive) environmental education is a pragmatic approach which allows action by suggesting a conception of relativist truth, based on contextual discussion amongst actors. She writes, "Postmodern educators adopt an ethical posture that is also relativist (where the context is taken into account)… This involves a critical discussion among the actors within a situation in order to provide a basis for contextually appropriate decision-

making" (p13). This pragmatism runs into the problem that dominant constructions of truth may be wrong (Bhaskar, 1993:216; Peirce, in Haack, 1998:113).

A particularly chilling consequence of this contradiction is that it leads some researchers to suggest that the point of research is not to search truths but to dominate. Haack (1998:132) suggests this when she says "…those who despair of honest inquiry cannot be in the truth-seeking business…; they are in the propaganda business". Haack (1998:132) illustrates this approach with a quote by Grosz, who uses it in the context of feminist research. "…feminist theory…is not a true discourse…It could be appropriately seen, rather as a *strategy*,…[an] intervention with definite political…aims…*intellectual guerilla warfare*".

5.4   THE SUPER DETERMINIST POSTSTRUCTURALIST EXPERIMENT

Super-determinism has the advantage that it avoids the problem that mind-over-matter approaches contradict our common sense understanding that we cannot think things into existence. Therefore, we might think that we as the observers are creating the things we observe, but this is an illusion. Super-determinism is linked with postmodern followers of Foucault's ideas (for example, Popkewitz and Brennan, 1998; Cherryholmes, 2001), and with followers of the ideas of the sociologist Norbert Elias (for example, O'Donoghue and Lotz-Sisitka, 2002).

Both Foucault (MacNay, 2000:9; Norris, 1996: xv, xvi, 9-20 ; Sayer, 1999:49) and Elias (Bauman 1979: 120, Smith 1984: 370, Haferkamp 1987: 556, Layder 1994: 118, all mentioned in van Krieken, 1998, internet paper) have been criticised for their implicit determinism. In this world-view, it is assumed that society is super-determined by the relations of power, and thus, although an actor may think she has the choice to act, this choice is in fact illusory, and instead it is determined and defined, through discipline and self-discipline, by the social milieu in which finds she herself. She thinks that she has freedom of choice when in fact she merely self-disciplines herself to choose only between the choices made available to her by society.

Cherryholmes (2001: 37) illustrates this super determinism thus: "It is possible, [pragmatists][27] understand, that what appears to be a freely chosen aesthetic or a rationally calculated outcome may well be a highly determined effect of power and ideology". Popkewitz and Brennan (1998:18), in their description of power as 'deployment' explain that, "The welfare state insurance for unemployment, and classification systems that define people by age, occupation, marital status, and health status serve to re-vision individuality through 'civilizing processes', to borrow from Norbert Elias (1978), that produce boundaries and permissible paths for the new citizen. The idea of the deployment of power gives focus to how the subject is disciplined through the rules of knowledge per se." This super determinist position is also stated by O'Donoghue and Lotz-Sistka. They write, "Elias also argued for a better understanding of the relational nature of social life, noting that 'no individual person, no matter how great his stature, how powerful his will, how penetrating his intelligence, can breach the autonomous laws of the human network from which his actions arise and into which they are directed' (Elias, 1994, p. 266)."

The super-determinist position, however, also contradicts a common sense intuition, namely that we do have some choice in our actions. The argument that our choices are not always as rational or as free as we might like to think may well be true, but it does not necessarily lead to the conclusion that they are in fact super determined. The ethical concern in this approach is that it does not allow for the possibility of reasonable action. If we were to really believe this position, there would be little incentive to act towards creating an improved world. It also suggests that we can avoid responsibility for our actions, which can be analysed as merely expressions of the larger society, and thus not a question of free will.

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[27] Cherryholmes' (2001) pragmatism is different from the pragmatism of Popkewitz and Brennan (1998). The former remains true to an anti-realist position but allows action by replacing reality with aesthetics, i.e., what is true is what is beautiful. The latter allow action through an oscillation between naïve realism and anti realism, based on their 'sovereign' and 'deployment' conceptions of power.

5.5   CONCLUSION

My hope for this paper is that it succeeds in delineating and critiquing the manifestation of the linguistic fallacy in the various sorts of experiments in poststructuralism, as I have experienced them in the field of environmental education. It is not in the scope of this paper to offer a detailed alternative experiment. However, implied in my critique is the critical realist approach which could offer just such an alternative.

CHAPTER 6 SOCIAL EPISTEMOLOGY AND ITS POLITICALLY CORRECT WORDS: AVOIDING ABSOLUTISM, RELATIVISM, CONSENSUALISM AND VULGAR PRAGMATISM

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6.1   ABSTRACT

Where social epistemology has been applied in environmental education research, certain words have come to be associated with it, such as, 'social', 'contextualised', 'strategic', 'political', 'pragmatic' 'democratic' and 'participatory'. In this paper, I first suggest interpretations of these words that potentially avoid absolutism, relativism, consensualism and vulgar pragmatism. I then identify interpretations that succumb to these problems. To support my argument, I draw on Peircean scholars, critical realist scholars and scholars who rely on a *tranche* of metaphor that evoke images of connections, partnerships, webs and rhizomes. These writers suggest a social epistemology in which in which relationships, not objects, are primary.

6.2   INTRODUCTION

'Social epistemology' is a term that has gained popularity because of the linguistic turn in research. We can, in short, understand it to be a proposed alternative to epistemologies that reify ontology by assuming a simple correspondence between what is researched and *what is said* about what is researched. We are now aware that such a simple, easy correspondence is unlikely (Peirce, 1868; Foucault, 1965; Derrida, 1974; Bhaskar, 1989; Lather, 1991; Latour, 1991, 1993, 1999; Sayer, 1999; Haraway, 1997; Haack, 1998; Eco 2000, to name a few). Where social epistemology has been applied in educational and development research, certain words have come to be

associated with it, such as, 'social', 'contextualised', 'strategic', 'political', 'pragmatic' 'democratic' and 'participatory' (for example, in the work of such authors as Lather, 1991, Cornbleth, 1990, Chambers, 1989, 1997, Hope and Timmel, 1996, Cherryholmes, 1999 and Popkewitz, 1984, 1998). In this paper, I offer my preferred interpretations of these words and suggest how certain other interpretations may be both epistemologically and ethically unsound.

6.3   HOW MIGHT ENVIRONMENTAL EDUCATION RESEARCH EPISTEMOLOGY BE SOCIAL AND CONTEXTUALISED?

In naming, identifying, and explaining, researchers are also drawing forth and transforming…we could almost say 'creating'… provided we understand that we are not creating from a vacuum, but from what existed before. Additionally, our research is never-ending since there is no absolute knowledge at which we ultimately arrive. In the words of Bhaskar (1993:76), "We never start from scratch (…) or finish with nothing (…) to do (…)". Likewise, that which we would research is also, continuously, transforming and even creating us (again, given the same proviso with regard creating). As Haraway (n.d.) put it, "The arrow goes both ways".

Significantly, in this mutually constituting relationship (Gough and Price, 2005), we need to acknowledge the role of researchers in mobilising knowledge; giving it its narrative form and packaging it to allow it to move from where it exists in its unmobilised form (our research localities) to where it exists in its mobilised form (our research journals and publications, our policy documents and newspaper articles) (Latour, 1999). In mobilising knowledge, the researchers must draw on their previous knowledge and experience, their understandings of epistemology and their understandings of what the knowledge is going to be used for. They are giving knowledge a social countenance, to allow it to better participate in social life (Latour, 1999). In this sense, we can say that knowledge is 'social'.

Given the above, it follows that context and researcher identity will affect knowledge production. Different cultures will provide different language resources, different

histories, different geographical potentials, constraints and evocative imagery; thus, the same phenomenon, mobilised by people from different cultural, geographical and historical heritages may have significantly different characteristics. In the words of Sayer (1999:46), with regard the differences between the mobilised knowledge of the researched and the researcher, "At times, social scientists' analyses of discourses, action and images are likely to be as different from actors' understandings as an art historian's interpretation of a painting is from a layperson's". Yet, if researchers have acted with integrity, these differences should complement each other and add to the richness of our understanding of the phenomenon (Sayer, 1999:46).

Where different knowledges appear to contradict each other, this is a useful source of research information. The questions we ask in trying to understand the contradictions can greatly enhance our understanding of the phenomenon in question (Bhaskar, 1993: 20, 32, 72-86, 191 and 378-379). The contradictions may merely be artefacts of the metaphors used, or may lead to a deeper, more true understanding of the phenomenon. I say 'more true' because in this social epistemology, knowledge is not absolute; rather it is more or less true and may vary with changes in spatio-temporality. In the words of Haack (1993: 72), "(…) justification comes in degrees; (…) whether or to what degree a person is justified in believing something may vary with time".

This is not to say that eventually we can come up with one single, unified story, in the positivist sense, to which all others are reducible. Rather, the different views of the phenomenon, from the different perspectives which come from different knowledge systems, need not be contradictory but rather usefully complementary (Haack, 1998:160). For example, laboratory research on the immune system may indicate the importance of 'love' chemicals, such as endorphins, in maintaining a healthy immune system (Dan and Lall, 1998), but poetry may be a better medium for inter-personal sharing of what it means to 'love'. Such different, contextual, knowledges, mobilised by such different word-websters as laboratory scientists and poets, can thus be *complementary,* but nevertheless, not reducible into one story and one set of metaphors.

6.4 HOW MIGHT ENVIRONMENTAL EDUCATION RESEARCH EPISTEMOLOGY BE STRATEGIC, POLITICAL AND PRAGMATIC?

In giving knowledge its social countenance, we researchers make use of metaphors and language that we think will make knowledge recognisable, understandable, and work for us to adequately express that knowledge and to adequately explain the world. When I say 'work for us', I do not mean that *the measure of truth* is how much a truth-claim helps us achieve our social or political goals, which would make it acceptable for falsehoods to be considered true provided we could justify that 'believing' in the falsehoods would further our social and political aims. Our social, political and economic goals may be facilitated through the appropriateness of the way that we socialize our knowledge, and will to some extent affect *how* we socialize knowledge, but, to reiterate, this does not mean that our knowledge is *verified or validated* by the success with which it helps us achieve our social, political and economic goals. Rather, verification and validity are a question of evidence, or legitimate inference (Haack, 1993; 1998).

This is not to say we must return to absolutist, naively objectivist ideas of knowledge that force interpretations of '*the'* truth onto unsuspecting readers. We can avoid dishonest word-play by making clear the process of socialisation of the knowledge. We should also aim for 'naked' rather than 'loaded' statements (Latour, 1993:106). Foucault's archaeological writings on, for example, madness (Foucault, 1965) is an example of how we can make naked the historical socialisation processes of our knowledge. Similarly, discourse analysis of texts can indicate socio-political underpinnings perhaps not obvious on first readings (Price and Sathiagnan, 2005c). As researchers, an imperative is that we become aware of the grammatical ploys we ourselves use, often unconsciously, to load our statements. For example, passive language, common in academic literature, hides the agent and therefore responsibility. Thus, the 'loaded' passive sentence, 'It was found that students commonly fall asleep in lectures', hides the identity of the person who made the discovery. A more 'naked' (active) sentence would be, 'I found that students commonly fall asleep in lectures'.

The former sentence also implies greater 'objectivity' and therefore makes a stronger (but questionable) claim to knowing 'the' truth.

Suggesting that knowledge should 'work for us' is an understanding of pragmatism which is close to the Peircean pragmatism (or, as he preferred later, "pragmaticism") reinterpreted by Eco (2000) and Haack (1998). I say reinterpreted because both Haack and Eco make some adjustments to Peirce's original thesis. In this form of pragmatism, we may usefully contain knowledge, Latour might call it 'black-boxing', and thus make it into a more active thing: "Black-boxing is a way of simplifying the social world (... .) Black-boxing (...) makes it possible for innovators and users to get on with their jobs" (in Kendall and Wickham, 1999:74).

This is quite different from the post-modern concern with "black-boxes". Post-modernists would see black-boxes, at best, as a necessary evil and, at worst, have us avoid them altogether. This post-modern concern places researchers in an impossible position. Every time they write (that is, construct "black-boxes"), because their words simplify the world and cannot carry it exactly, and because their words refuse the myriad other possible words, they commit acts violence. Also, the possibility of them ever achieving 'truth' is questioned. Furthermore, they contradict themselves because, having denied a relationship between the world and representation (Laclau and Mouffe, 1985 in Sayer, 1999), they deny the possibility of choosing between better and worse representations and thus there seems to be little point in writing at all (Sayer, 1999). Latour's realistic realism, along with the other non-naïve realisms mentioned in this paper, offer an alternative to this relativist post-modern scepticism.

For example, in a poster campaign, the statement 'smoking is detrimental to health' is appropriate, or perhaps 'true enough', and in this simplified form it may save lives. A highly academic, but extremely comprehensive, account of the effects of smoking may be 'more true' but may not be read by the majority of people who smoke; we could say it would be less active and thus save fewer lives. However, the simplified black-box statement that 'smoking is detrimental to health' may be inappropriate in some circumstances; people with Parkinson's disease may find the benefits of

smoking out-weigh the risks and require a detailed, medically-based explanation of the effects of nicotine on the neurological system (Hernan *et al*, 2001; Tanner *et al*, 2002).

Thus, our knowledge takes on a social visage; we change its appearance strategically and pragmatically to make it as socially mobile as possible. However, no matter how much we simplify the world or 'black-box' knowledge, what we say must somehow carry us honestly from "words to things and from things to words" (Latour, 1991:106). Thus, there remains some part of the truth, in its different stories, which is immutable. Eco also talks of this immutable aspect when he talks of a "hard core". He says:

> *As usual, metaphors are efficiacious but risky. By talking of a 'hard core' I do not think of something tangible and solid, as if it were a kernal that, by biting into being, we might one day reveal. What I am talking about is not the Law of Laws. Let us rather try to identify some lines of resistance, perhaps mobile, vagabond, that cause discourse to seize up so that…there arises within the discourse, a phantasm, the hint of an anacoluthon, or the block of an aphasia…being places limits on the discourse through which we establish ourselves in its horizon…*
> (Eco, 2000:50).

And also:

> *To state that there are lines of resistance does not mean that something, (concealed behind the appearances that would mirror it) has, like a mirror, a rear side that eludes reflection, a side that we are almost sure we will one day discover…it is that reality imposes restrictions on our cognition only in the sense that it refuses false interpretations.*
> (Eco, 2000:54)

Bhaskar would call the immutable aspect, Eco's "hard core", the *alethic* truth, or "the nature of things regardless of what we or others think or say about them" (in Sayer, 1999:58 and 66n25). It is the alethic truth, which, by respecting it, keeps researchers honest and helps them avoid relativism. For example, we might interpret a screw driver as a parcel opener; but the nature of the screw driver itself refuses an interpretation of it as a tool "for rummaging about in your ear" (Eco, 2000:50).

6.5 HOW SHOULD ENVIRONMENTAL EDUCATION RESEARCH EPISTEMOLOGY BE 'DEMOCRATIC' AND 'PARTICIPATORY'?

The 'participatory' and 'democratic' components of a social epistemology imply that we should take the time to genuinely listen to 'the other' (Merchant, 2003). We should also acknowledge the fallibility of our knowledge (Bhaskar, 1989; Sayer, 1999; Haack, 1998). Genuinely listening means refusing to be absolutely certain that 'our' knowledge is better than 'the other's' knowledge; where 'ours' might be the scientific knowledge of the West, but just as possible 'ours' might be a marginalized knowledge, such as a traditional knowledge. If we are absolutely sure of the infallibility of our way of gaining knowledge, there is little incentive for listening to the knowledge of others.

Being a democratic researcher, however, also requires self-reflexivity, or knowing oneself, because unexamined prejudices may prevent us from genuinely listening. Such prejudices are part of our *habitus* and are deeply in-grained in us (Bourdieu, 1998). Being able to see past our prejudices[28] and thus being able to move towards a democratic vision, requires us to reflect on our practice; it requires a willingness to ask questions about the honesty of our view-points. This self-reflexivity opens us up the possibility of really listening to others, and even being changed by them, since 'who we are' is inextricably linked to 'what we know' (Boudieu, 1998). Self-reflexivity, with its implied movement and change, is therefore different from simple reflection. Haraway (1997:273) also emphasises the need for reflection to result in change when she suggests that we speak of knowledge in terms of 'diffraction' rather than 'reflection'.

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[28] One anonymous reviewer asked if it is possible to see past our prejudices. My answer is that whilst we can never avoid the social and thus, to a degree, the relative component of knowledge, this does not mean that there is no way to judge better and worse assumptions. Prejudices are assumptions that, relative to other assumptions, are likely to have a poorer fit with the alethic truth because they have not been adequately examined; in other words, there is likely to be more evidence against them. This evidence, if examined, is likely to make the prejudices seem indefensible. For example, racial prejudice is fuelled by racial segregation. The more races get to know each other, the more their unexamined assumptions (prejudices) about each other begin to seem untenable.

When we write about 'others' we are not referring only to 'other people' but also to non-human 'others'. Half-jokingly, Latour goes so far as to suggest that we 'enfranchise' non-humans. He asks (1993:12) whether we need a different democracy, "A democracy extended to things?". Thus, a social epistemology, for me, includes taking into consideration the information provided, not just by human, but also by material, non-human, objects of the collective. For example, when assessing claims for and against climate change in the world, not only would we listen to human opinions, but we would also look to the material evidence of climate change, and even evidence for climate change that we have personally experienced. The different pieces of human and non-human evidence should interlink and support each other like clues in a crossword: where there are contradictions, this is an indication that further clarification and revision is needed (Haack, 1993; 1998). This is a naturalistic coherentism. As one anonymous reviewer pointed out, a non-naturalistic coherentism based only on what humans say, and relying on knowledge based in cultural assumptions and conventions etc, would conceivably run into the problematic situation in which there are no contradictions but everyone is just wrong. We should be seeking a fit between what we say, what others say and our experience of *the world*, not just a fit between what we say and what other people say.

Finally, a democratic epistemology must emphasise freedom of thought and expression. Being able to listen to 'the others' requires that they must have a voice. We must assume that any 'voice' will not be free from the discourses that colour it; there will be no one absolute voice. If the 'other' which is being given a voice is voiceless (such as young children or the Earth), then extra care must be taken to listen carefully to the evidence available to us. Sometimes, we cannot just sit back and *let* them speak; we need to *actively create the space* for them to speak. For example, in a world where, "Women are 'queried', they are interrupted, their opinions are discounted and their contributions devalued in virtually all of the mixed-sex conversations that I have taped" (Spender, 1980:87), we may need to teach men to be less aggressive and more respectful of others in conversationto make space for women's voices to be heard. For 'the other', which is not human, to allow its 'voice' to be heard we may need to actively research and mobilise information. In terms of

'the environment' as 'the other', this freedom of expression would mean supporting (relatively) independent research institutions which are committed to monitoring the environment and publishing the results of their research. By 'independent' I do not imply these institutions will be capable of simplistic objectivity. There will always be dissent and complexity, but institutions dedicated to relatively truthful (albeit arguable) representation of the earth's vital signs are possible and I would argue necessary in our attempts to protect, and give a voice to, the environment. Some extreme post-modernists might argue, relativistically, that since there is no knowledge claim that is not a will to power, such institutions should be abandoned completely. In a sense, these research institutions are speaking for the Earth and its current experience of the environmental crisis. Foucault (1967 in Faubion, 1994: 270) remarks on non-human speech, "After all, it could be that nature, the sea, the rustling of trees, animals, faces, masks, crossed swords, all of these speak; perhaps there is language that articulates itself in a manner that is not verbal."

The idea of having representatives of the Earth speak for the Earth is explored by Merchant; she calls it a "partnership ethic". She writes, "Both nature and humans will have voices, and both voices will be heard" (Merchant, 2003:229).

6.6   HOW SHOULD ENVIRONMENTAL EDUCATION RESEARCH EPISTEMOLOGY *NOT* BE SOCIAL, CONTEXTUALISED, POLITICAL, STRATEGIC, PRAGMATIC, DEMOCRATIC AND PARTICIPATORY?

When we realised that there was not a simple correspondence between the truth out there and what we said about the truth, we gave up our epistemological privileges: the possibility of having absolute, infallible knowledge (Latour, 1999; Haraway, 1991, 1997; Haack, 1998; Irwin, 2001). Sometimes, however, in our desire to be right in an argument, such as about the best way to deal with climate change, or the best way to protect people's livelihoods whilst at the same time protecting the environment, it is tempting to exchange the old absolutism for newer ones, in the form of 'strategy', 'contextual', the 'social', 'participation' and 'democracy'. We might do this in various ways (Bhaskar, 1993; Latour, 1999). We might claim that the truth is

absolutely what the individual thinks is the truth (a phenomenological absolutist perspective), for example:

> *In phenomenological terms, the relationship between perceptions and reality is also seen to be "interdependent and dynamic", so much so that our perceptions come to mean reality itself, or at least the only reality we are able to subject to scrutiny.*
> (Van der Mesche, 1996:44).

Or, we might want to claim that truth is relative to what *the community*, in context, says it is. This is typical of strong social constructionist 'participatory' approaches to knowledge, such as that suggested by Robert Chambers in his book "Whose reality counts? Putting the last first" (1997).

Rorty describes this relativist, consensual epistemology thus:

> *I do not have much use for notions like (…) "objective truth". The pragmatist view is of rationality as civility,…as respect for the opinions of those around one,(…) of "true" as a word which applies to those beliefs upon which we are able to agree…*
> Rorty (1987:44-45 in Haack, 1998:32)

Popkewitz also describes this relativist, consensual approach to epistemology:

> *Pluralism reinforces a belief in individual self-actualization by its attention to the role of small interests groups in achieving the good life. There is also a relativism in that it considers no one way of life or view better than others and thus relies upon the market place of competing interests to produce consensus.*
> Popkewitz (1984:100)

An alternative to this sort of consensual, contextualised, participatory, democratic approach to epistemology, although often mixed together with it (as we see in Rorty's quote above) is to make 'usefulness', or 'strategy', or 'pragmatism'our measure of absolute truth. I define pragmatism here as: "philosophy that evaluates assertions solely by practical consequences and bearings on human interests" (Oxford Dictionary of Current English, 1984). I do not, use it in the philosophical sense in

which it was used by Charles Sanders Peirce. Rather, I use it in the sense that something is true if it benefits society. This kind of (vulgar) pragmatism is commonly found where researchers are trying to choose between an objectivist, absolutist epistemology and a narrative/constructivist-based epistemology. Beck (in Irwin, 2001:186) uses this approach when justifying his choice of epistemology but he might equally have used this approach in deciding any knowledge claim. He writes, "The decision whether to take a realist or a constructivist approach is for me a rather pragmatic one, a matter of choosing the appropriate means for the desired goal."

Lather also suggests this Machiavellian, vulgar pragmatic approach to deciding contradictory epistemological issues in feminist research. She quotes Riley:

> *Riley advises "foxiness" and versatility" in negotiating between awareness of the indeterminacy of the term of "women" and a strategic willingness to speak "as if they existed…Sometimes it will be a soundly explosive tactic to deny it, in the face of some thoughtless depiction, that there are any women. But at other times the entrenchment of sexed thought may be too deep for this strategy to be understood and effective. So feminism must be agile enough to say, "Now we will be 'women' – but now we will be persons, not these 'women'.*
> (Lather, 1991:30)

This substitution of the old absolute, for the new ones, of Machiavellian pragmatism and questionable interpretations of democracy, consensualism, the social and social constructionism leads to a dangerous sort of relativism. For example, in Zimbabwe, more than 60% of people believe that it is a husband's right to beat his wife (Hindin, 2003). Given the consensualist, democraticview being critiqued here, such information should indicate that therefore Zimbabwean husbands' right to beat their wives should be entrenched in the law. There would be no need to discuss the real merits of such a position, or to consider that possibly most Zimbabweans are misinformed with regard to this issue; all that is required is a cynical acceptance that this is just how things are. Haack (1998:113) expresses her concern with regard certain interpretations of what a democratic epistemology means: "True, freedom of thought and speech are important conditions for scientific enquiry to flourish; and it

may be that some who favour 'democratic epistemology' have confused the concept of democracy with the concept of freedom of thought. …Unless you are befogged by the emotional appeal of the word 'democratic', it is clear that the idea is ludicrous that the question, say, what theory of subatomic particles should be accepted, should be put to the vote." Haraway explains the dangers of making truth relative to social constructionism:

> *All truths become warp speed effects in a hyper-real space of simulations. But we cannot afford these particular plays on words—the projects of crafting reliable knowledge about the 'natural' world cannot be given over to the genre of paranoid or cynical science fiction. For political people, social constructionism cannot be allowed to decay into the radiant emanations of cynicism.*
> (Haraway, 1991: 183 –201)

Some interpretations of a pragmatic or strategic approach to assessing knowledge claims lead to a reduction of freedom of thought and expression, since they imply that we should only speak if what we are going to say is supposedly going to benefit society, and not because we believe that what we say is true. This is a problem, because, *who is to decide what is good for society*? Charles Sanders Peirce had strong views about making epistemology a definitively political enterprise:

> *I must confess that I belong to that class of scallawags who purpose…to look the truth in the face, whether doing so be conducive to the interests of society or not. Moreover, if I should ever attack that excessively difficult problem, 'What is for the true interest of society?' I should feel that I stood in need of a great deal of help from the science of legitimate inference….Against the doctrine that social stability is the sole justification of scientific research …I have to object, first that it is historically false…; second, that it is bad ethics;…and third that its propagation would retard the progress of science.*
> (in Haack, 1998:44).

The kind of 'pragmatic' approach to epistemology that advocates "politically adequate research and scholarship" (the words of the feminist researcher Harding, in Haack, 1998:97) is therefore chilling, whether suggested by totalitarian governments or feminist researchers. Haraway also criticises Harding on this aspect of her

epistemological stance when she says of Harding that "I do not share her occasional terminology of macrosociology and her all-too-evident-identification of the social" whilst at the same time acknowledging the usefulness of Harding's basic argument "that is committed as much to knowing about the people and positions from which knowledge can come and to which it is targeted as to dissecting the status of knowledge made". (Haraway, 1997:36-37).

Sayer gives two examples of totalitarian leaders who have made use of the relativism found in this particular interpretation of the idea that epistemology is social:

> *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.*
> (Hitler, in Sayer, 1999:47)

> *Everything that I have said and done in these last few years is relativism by intuition...From the fact that all ideologies are of equal value, that all ideologies are mere fictions, the modern relativist infers that everybody has the right to create for himself his own ideology and to attempt to enforce it with all the energy of which he is capable.*
> (Mussolini, in Sayer, 1999:47)

As is clear from the quotes above, it is important that we are sure of what we mean when we use the words associated with a 'social epistemology' to guide us in our research endeavours.

6.7   METAPHORS FOR AN APPROPRIATE SOCIAL EPISTEMOLOGY

There are writers who manage to remain true to a sort of social epistemology, yet avoid the various kinds of absolutisms, relativisms, consensualisms and vulgar pragmatisms. They achieve this by using a *tranche* of metaphor that evokes images of connections, relationships, partnerships, webs and rhizomes. These writers consider *relationships*, rather than *objects*, to be primary. Callon, for example, (in Kendall and Wickham 1999:104), suggests that divisions between human and non-human objects,

nature and society are the *results* of relational networks, rather than their starting points. Latour says that:

> A nonmodern is anyone who takes simultaneously into account the modern's Constitution and the populations of hybrids that the Constitution rejects and allows to proliferate (…) 'it's nothing, nothing at all', it said of the networks, 'merely residue'. Now hybrids, monsters – what Donna Haraway calls 'cyborgs' and 'tricksters' whose explanations it abandons – are just about everything.
> Latour (1993:46)

Haraway (1997:268), also making use of the network, rhizome *tranche* of metaphor, suggests the use of the image of "playing cat's cradle games". She says (1997:37), "Oddly, embedded relationality is the prophylaxis for both relativism and transcendence."

It is not in the scope of this paper to extensively discuss how these metaphors can assist environmental education researchers. However, as one example, I will touch on how it might change the way that we ask research questions. For example, say a researcher is interested in class and environmentally aware practice. Rather than starting with the objects "class" and "environmentally aware practice" and finding out how they affect each other, she would *start* with the *mutually constituting relationship* between "class" and "environmentally aware practice". She might ask: "How is class reproducing or transforming environmentally aware practice?" and "How is environmentally aware practice reproducing or transforming class?" Note the sense in which asking questions this way implies that the objects lack firmness (they are mutable). They are not things that exist separately, but rather they are constantly in relationship, constantly being reproduced or transformed. An analogy might be the way that a whirlpool is distinct, but not separate from the stream; constantly being reproduced or transformed by the flow of water.

CONCLUSION

A social epistemology for environmental education research should allow knowledge to be social and contextual in the sense of allowing different, pluralistic interpretations, not in the sense of making truth status dependent on social consensus. It should be strategic and pragmatic, in the sense of mobilising knowledge appropriately, not in the sense of deciding content in order to further preconceived ideas of what is good for society. It should be democratic and participatory, in the sense that it will ensure a voice for all actors, human and non-human, not in the sense that we should put truth to the vote. A potentially fruitful set of metaphors for this kind of social epistemology might evoke images of networks, rhizomes, webs and relationships.

CHAPTER 7 PLAYING MUSEMENT GAMES: RETRODUCTION[29] IN SOCIAL RESEARCH, WITH PARTICULAR REFERENCE TO INDIGENOUS KNOWLEDGE IN ENVIRONMENTAL AND HEALTH EDUCATION

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Price, L. (2005b). Playing musement games: retroduction in social research, with particular reference to indigenous knowledge in environmental and health education. *Southern African Journal of Environmental Education*, 22, 87-96.

> *Moreover, those problems that at first blush appear utterly insoluble receive, in that very circumstance… their smoothly-fitting keys. This particularly adapts them to the Play of Musement.*

(Peirce, 1901)

> *Enter your skiff of Musement, push off into the lake of thought, and leave the breath of heaven to swell your sail. With your eyes open, awake to what is about or within you, and open conversation with yourself; for such is all meditation.*

Peirce (1901)

7.1   ABSTRACT

My aim here is to suggest the concept of musement (retroduction or abduction) as an appropriate alternative to deduction and induction, both in indigenous knowledge (IK) specifically and in social science generally. As an example, I will use musement to

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[29] Retroduction or abduction can simply be understood as "guessing" (Brent, 1993:3). "Its occasion is a *surprise*. That is, some belief, active or passive, formulated or unformulated, has just been broken up… The mind seeks to bring the facts, as modified by the new discovery, into order; that is, to form a general conception embracing them. In some cases, it does this by an act of *generalization*. In other cases, no new law is suggested, but only a peculiar state of facts that will "explain" the surprising phenomenon; and a law already known is recognized as applicable to the suggested hypothesis, so that the phenomenon, under that assumption, would not be surprising, but quite likely, or even would be a necessary result. This synthesis suggesting a new conception or hypothesis, is the Abduction. …This is not accepted as shown to be *true*, nor even *probable* in the technical sense, - i.e., not probable in such a sense that underwriters could safely make it the basis of business, however multitudinous the cases might be; - but it is shown to be *likely*, in the sense of being some sort of approach to the truth, in an indefinite sense. (Peirce, 'A Syllabus of Certain Topics of Logic', EP 2:287, 1903; in Bergman and Paavola, undated, Commens Dictionary of Peirce's Terms).

tentatively address some of the ethical problems of using indigenous knowledge (IK) in environmental education (EE) and health education[30]. This paper will therefore be of use both to researchers/educators wanting a discussion of retroduction, and researchers/educators wanting a discussion of indigenous knowledge epistemology and its relationship with ethics. I am arguing, from a perspective that allows a stratified reality (things can be real even if not measurable or actually present), that, we admit retroduction into our list of allowable research logics. In terms of IK, the result of accepting retroduction as a valid logic is that we allow IK to be dynamic and non-reified. It also allows a previously ignored aspect of IK, its spiritual/non-empirical beliefs, to be validated through ethical outcomes experienced in our lives, rather than through the previous criteria of empirical validity. In other words, we ask for IK: does believing in (whatever) adequately explain experience and/or provide optimistic, long term, ethical, appropriate ways of living? Thus, retroduction has the potential to allow IK to contribute to a normative ethics.

7.2   INTRODUCTION

In this paper, I explore a concept currently being brought to our attention mainly by critical realism (CR) known as 'retroduction'[31] or 'abduction'[32]. Peirce (1901)

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[30] This paper was originally prepared as a presentation for the 8th International Research Seminar: Environmental and Health Education, Rhodes University, Grahamstown, South Africa 15-18 March 2005, whose theme included "ethics".

[31] Retroduction, along with induction, is one of a group of types of inferences from observed to unobserved things. *Induction* is the inference from past to future while *retroduction* is the inference from actual phenomena to structural causes. Critical realists also recognize *retrodiction*, as the inference from events to antecedent causes (retrodiction presupposes retroductively achieved explanatory theories), and *transduction* as the inference from closed to open systems (Irwin, 1997). Charles Peirce was the first person to describe retroduction (Brent, 1993:3). Although Peirce's writing distinguishes between retroduction and retrodiction, he did not give a name to the latter, subsuming it instead under the word retroduction that acts as an umbrella term for both (Cf. footnote 1).

[32] There is a lack of agreement over whether there is a difference between retroduction and abduction. Some critical realist thinkers make a clear distinction (Danemark *et.al.*, 2002: 80; 110), namely that *abduction* is but a first creative phase in the seeing of patterns, while *retroduction* is a further logical step in the control of necessary and contingent relations between events. Charles Peirce (Bergman and Paavola, undated, the Commens Dictionary of Peirce's Terms) argued that *retroduction* was a more appropriate word than *abduction* although he used both at different stages of his life work (Brent, 1993:3). In this paper, I use the terms interchangeably.

additionally used the terms 'guessing', 'musement' and 'pure play' to denote abductive or retroductive reasoning[33].

I argue that in social science, musement[34] should be an accepted logic, along with deduction and induction[35]. This is because musement allows the researcher to engage with non-empirical social structures and mechanisms. I then explore the potential of musement to address certain seemingly unsolvable ethical problems in the use of IK in EE.

7.3   A STRATIFIED VIEW OF REALITY AND THE IMPORTANCE OF MUSEMENT IN SOCIAL SCIENCE

The critical realist Roy Bhaskar insists that reality is stratified. By this, he means that what is real is not just what can be measured, as is claimed by empiricism. Rather, what can be measured is only a subset of a larger reality which includes what is actual but not empirical (events which have happened, but cannot be 'measured' or reproduced) and what is real, but neither actual nor empirical (for example, an unexpressed tendency in society or intangible, but knowable, structures and mechanisms in society). (Bhaskar, 1989:190; Sayer, 1999:11). This view of reality rests on the assumption that absences are real. For example, a purely positive view of reality would assume that because slaves do not express their power, they do not have power. For critical realism, unexpressed power is nevertheless real power.

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[33] Many critical realists, from whom I borrow much in this paper, would be surprised to see my parallel use of Peirce (Mervyn Hartwig, pers. com). This is because Peirce is often unfairly associated with subjectivist pragmatists such as Richard Rorty (as in Bhaskar, 1993: 16), whose philosophy has been severely criticised by critical realists. However, Peirce himself was horrified at the way his word 'pragmatism' was being used by his successors, so much so that he changed the word to 'pragmaticism' to distance himself from the other pragmatists. At that time, he was most concerned by the pragmatism of William James (Haack, 1998).

[34] Contrary to the academic habit of preferring large technical words, and following the example of Peirce, I will use the terms guesswork, musement and pure play interchangeably with retroduction and abduction in an attempt to demystify the terminology.

[35] Bertilisson (2004) discusses the usefulness of abduction to social science, and makes the link between Peirce, critical realism, pragmatism and abduction.

Bhaskar suggests that perhaps the most important mistake made by Western philosophy is the insistence on ontological monovalence, i.e. that what is real is only what is positive (Bhaskar, 1993:406). In the social sciences, ontological monovalence is a problem because so much of what we are interested in falls into the non-positive and thus unmeasurable real and actual categories. Ontological monovalence is sometimes called positivism. In opposition to ontological monovalence, critical realists have shown ontology to be bivalent, and indeed polyvalent (Bhaskar, 1993:401).

This is why musement becomes useful for social research: its measure of validity is not whether what we are researching can be measured and the results replicated (ontological monovalence), but whether our explanation does a good job of accounting for the evidence and whether it provides us with appropriate ways to act (Sayer, 1999:21). Musement takes empirical experience and uses it as evidence for explanatory theories of structures and mechanisms. Those structures and mechanisms are real but not themselves empirical.

There is a kind of non-vulgar pragmatics at work in musement, because the best explanation is that which 'works for us'[36], that is, we take the evidence available to us and retrospectively suggest non-empirical, antecedent structures and mechanisms to explain that evidence. Like a crossword (Haack, 1998:85-86), the evidence available to us should interlink and extensively corroborate the explanation. Indeed, Peirce both

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[36] By saying that our theory 'works for us' I do not imply that this means that believing something should make my life easier (fake reasoning) or back up pre-existing theories or ideologies (sham reasoning) (Haack, 1998:189-190). Rather, the term 'works for us' means that the knowledge best fits the evidence, including evidence that my actions may result in expected outcomes (although, because the world is an open system, an outcome that is unexpected may not require a complete revision of a theory). It may be helpful to remember that vulgar pragmatism will not result in surprising, new, knowledge; rather practitioners will deceptively 'find' knowledge that fits assumptions already held, or to advance themselves. However, pragmatism based on retroductive reasoning is by definition surprising, because it is new (at least to the person engaging in it). It is conceivable that retroduction could result in knowledge which may be inconvenient, even embarrassing, if it shows up misconceptions previously held dogmatically. For example, it might be embarrassing to admit that the beliefs of uneducated indigenous knowledge practitioners offer better ethical frameworks for environmental management than the beliefs of highly educated Western practitioners. Or, it might be inconvenient if a new belief results in my acknowledgement that I have an ethical responsibility to future generations and I now have to stop squandering resources.

coined the word *pragmatism* and introduced the word *retroduction* to Western philosophy (Brent 1993:3).

7.4   NOW TO DEMONSTRATE THE POTENTIAL OF MUSEMENT: SOME PURE PLAY WITH THE PROBLEMS OF INDIGENOUS KNOWLEDGE

What follows is a brief identification of some IK problems[37] and possible causes of those problems, derived through musement. I also outline some of my assumptions. I have relegated references to the footnotes to allow the ideas to flow more easily.

7.4.1 There is a tendency for education practitioners to tactically use IK only where it fits in with positivistic knowledge constructions[38].

Thus, non-empirical issues such as spirituality are often excluded from discussions which otherwise include IK. This invisibility with regards IK spirituality and non-empirically testable claims is perhaps[39] because, despite rhetoric to the contrary, practitioners do not hold IK valid unless it matches their, usually positivistic, knowledge.

7.4.2 It is often politically difficult to disagree with IK interpretations[40], even if there are good reasons for such disagreement.

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[37] These problems were originally identified in discussions I had with Jane Burt (pers. com).
[38] For example, in an overview of IK in environmental education in Southern Africa, Masuku Van Damme and Neluvhalani (2004) do not mention any publications that deal with IK spirituality. In another example, in the working document formulated at the Second Indigenous Knowledge forum on biodiversity (1997), it was stated that indigenous people were concerned about, "The lack of recognition of the spiritual… perspectives of Indigenous Peoples in the Convention (on Biodiversity)". Haverkort and Hiemstra (1996, no pagination) stated that "…our perspective on indigenous knowledge was somewhat utilitarian: we had examined the whole of indigenous knowledge, selecting those parts which we considered useful"
[39] At least three reviewers commented on the tentativeness of this paper, especially my frequent use of words such as 'perhaps'. This is a methodological choice, not evidence of my lack of conviction. It is consistent with a fallible approach to epistemology.
[40] For a critique of the relativism of some epistemologies with regards indigenous knowledge, see Sayer (1999:172-187)

For example, in a medical situation, perhaps the argument "it is against our culture" is life threatening when it is used to deny women the right to insist that their partners wear a condom where appropriate[41]. This silencing of debate is perhaps because the phenomenological approach to IK tends to reify it; if people say something is true, then it is true for them, and thus, politically, it is difficult to disagree with it[42].

7.4.3 There seems to be a 'glass ceiling' limit to the potential of IK to be included in discussions of normative ethics to guide health-wise and environmentally-sound practice in Western-style mainstream circles[43].

Apart from the discrimination IK receives because it is considered less valuable than scientific knowledge, this 'glass ceiling' is perhaps also because the petrification of IK as phenomenological 'treasure' makes it relevant only to its specific context, thus limiting its potential to contribute to normative ethics for the broader community.

7.4.4 Indigenous people have demonstrated that their IK is used manipulatively and condescendingly[44].

That IK is treated condescendingly and manipulatively is perhaps a result of the narrow sphere of influence afforded IK and the lack of Western practitioner conviction, despite rhetoric to the contrary, with regard the spiritual and non-empirical beliefs present in IK.

7.4.5 Some assumptions

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[41] For example, research carried out in Botswana (Ntseane, 2004:18) stated that, "Because of existing cultural beliefs and values, it may be difficult to encourage the use of condoms".

[42] See Latour, B. (1999) for a discussion of the role of politics in entrenching certain epistemologies. Here he argues that our epistemological choices have predominantly been chosen because they make it difficult for "the mob" (in this case, the non-indigenous) to argue against the holders of the knowledge.

[43] That IK does not currently inform normative ethics for the wider community has been noted by, for example, Masuku Van Damme and Neluvhalani (2004). The British government's Commission on Intellectual Property Rights (2002) acknowledged that despite efforts spanning two decades, there are yet to be significant advances on protecting and promoting indigenous knowledge.

[44] This manipulation and condescension is eloquently explored by Shiva (1997).

7.4.5.1 Indigenous knowledge has much to offer environmental and health educators

According to Masuku Van Damme and Neluvhalani (2004:368), IK has much to offer. Apart from practical knowledge about managing the environment and health, IK also insists on values such as 'respect' and 'responsibility' for the environment. Much of this respect is imbedded in indigenous peoples' knowledge about spirit/god, as well as in their non-empirically-grounded cultural norms (for example, Haverkort and Heimstra, 1996; Hill, 2003).

7.4.5.2 IK ethics is currently immobilised

The potentially useful ethical implications of IK are immobilised between two issues. Firstly, researchers are afraid that if they were to treat IK with the same respect they treat 'scientific knowledge', they would have to either believe absolutely in the spiritual/non empirical aspects of IK, or they would have to suspend their belief in reality. Secondly, there is the fear that, if researchers were to apply the same criteria of (empirical) validity to IK as they do to scientific knowledge, its spiritual/non empirical aspects would not hold up. This is a problem for indigenous peoples, since currently there is a truce; they are 'allowed' the spiritual/non empirical aspects of their knowledge so long as these remain unthreatening phenomenological artefacts.

7.4.5.3 There is a link between spirituality/non-empirically-based beliefs (or 'long term optimism' or even 'good manners'), ethics and retroduction

Interestingly, and appropriately for this paper, Peirce's most explicit exploration of retroduction was not, as one might expect, within the context of scientific issues, but in the context of demonstrating the existence of god through the measure of ethical behaviour. However, Peirce's god was perhaps not a typical one. Chiasson (1999) describes it thus:

> *Though God is a value-laden term for most people--the idea of God's Reality, in Peirce's sense, does not have to signify a specific being--nor need it have a*

religion connected up to it. It appears that Peirce's use of the term, God, may have signified an ongoing inquiry into the hypothesis that there is meaning resulting from the way in which an individual conducts his life. This meaning is a consequence of deliberate choices of conduct based upon having abductively developed the hypothesis that what he does matters to both the immediate and ultimate outcome of things that may be beyond his ken.
 (Paragraph 26)

Chiasson goes on to say that Peirce was really arguing for the Reality of the ways in which one's perspective or vision directs the aesthetic (the ethical and the reasonable as practiced) to the living of a good life[45]. She suggests that perhaps there is simply a language based confusion between what one person might call a hopeful vision that must be connected to a belief in god, but which another might be willing to agree is a form of long term optimism. She writes:

> *The optimistic application of abductive reasoning allows an individual to engage in an aesthetic exploration of options and to then filter these options through the lens of ethics (or right conduct) before establishing one or another hypothesis as worthy of development and testing out in the inquiry that is one's life. Peirce called this 'right reasoning'. John Dewey called this activity undergoing an 'aesthetic experience'.*
> (paragraph 25)

For Chiasson, Peirce was not claiming that the proof of the reality of god resided in an after life, or in empirical measurement, but in the effects that this belief has on the way in which we conduct ourselves in this life. That is, in terms of our ethical conduct. She redefines Peirce's use of the word god into:

> *...any hypothesis- formed by means of optimistically undergone abductive reasoning—that leads one into consciously choosing ethical conduct that results in the living of a good life – whether or not the concepts we know as God or an afterlife enter into the matter at all.*
> (paragraph 31)

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[45] In environmental education, Cheney (for example, Cheney, 2001) uses Native American indigenous knowledge to provide a persuasive argument for the use of the ethical as epistemology. His views are largely in line with the sentiments of this paper, although he slips into fideistic positions, such as when he says, "what they say, it's true" (section II, no pagination) and possibly also sham reasoning, such as, "true to what you believe in" (section II, no pagination). In addition, he does not distinguish between the vulgar pragmatism interpretation of 'what works for us' and the more Peircean pragmatism of 'what works for us' (Cf. footnote 6).   However, his insistence that even the non humans be given a voice implies that his epistemology is potentially not of the vulgar sort, since he thus provides a voice for an aspect of reality that is not purely linguistic, or human. In other words, his epistemology potentially avoids idealism and relativism.

Peirce's pragmatism teaches us that what is important is what transpires (critical realists would say what 'emerges') through the process of believing, which is also a process of relating to 'others', human and non-human. People mainly develop their ethics out of their non-empirically based beliefs (which include values), and for 86% of the world's population these non-empirically based beliefs are religious (MacQueen, 2004:6). Since retroduction is the proper logic for dealing with non-empirical issues, there is a strong argument for the assumption that there is a link between non-empirically-based beliefs, ethics and retroduction.

7.4.6 **Given these assumptions, how can retroduction help with our IK problems?**

Let us revisit our IK problems outlined above:

7.4.6.1 Avoiding the tendency for education practitioners to tactically use IK only where it fits in with positivistic knowledge constructions

Taking the non-empirically based logic of musement seriously would allow researchers to consider knowledge that conventionally does not fit the usual norms of validity. Validity would be how well the proposed ethical conduct resulting from the beliefs would fit with, or be corroborated by, our experience of our lives. It would be that which 'works for us'[46]. Peirce emphasised the place of action-reaction-interpretation as the ongoing process for setting out to (fallibly) prove the hypothesis of god - the same way as he would have us set out to prove anything else. The only difference for Peirce between retroduction for scientific issues and retroduction for the existence of god (or indigenous spirituality for that matter) was that the latter required the individual to consciously engage in the experience of living his life. In other words, we submit our vision of god or spirit (or long term optimism if you prefer, or

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[46] Again, 'works for us' does not imply that the belief will make my life easier or back up pre-existing theories, ideologies or theologies.

even just 'good manners') to a process of triangulation and corroboration with the experiences of living our life. Chiasson (1999) writes:

> *The proof – if it can be called that – resides in testing and adjusting as necessary to the conditions of the hypothesis throughout the conduct of one's life and not in any other objective measure.*
> (Paragraph 29).

7.4.6.2 *Making it possible to disagree with IK interpretations*

Following IK and accepting its beliefs does not necessarily result in conduct that produces good outcomes. The measure of the truth of interpretations of IK is the way in which these beliefs produce outcomes. The spiritually-based claim that allowing women to take power over their sexuality would anger the ancestors and is 'not our culture' cannot easily be justified in terms of the unfortunate outcome (possible loss of life from AIDS infection) of the behaviours attached to that claim. However, since there will always be disagreement as to what constitutes a good outcome, this is not a simple, absolutist solution; it merely open the doors for debate. Nevertheless, this is an improvement over current phenomenological perspectives that simply leave no room for discussion.

7.4.6.3 *Breaking through the 'glass ceiling' limit to the potential of IK to be included in contemporary discussions*

Linked to the first problem, if researchers and, more generally the public, were to understand the useful implications of musement or retroductive reasoning, we could perhaps remove the stigma attached to non-empirical beliefs, thus making them more available to the differently-indigenous or non-indigenous mainstream. If we assume that scientism was at fault by over-emphasising the empirical, we put IK on a par with scientific knowledge and prevent its reification. When IK deals with non-empirical issues, this does not mean it is dealing with non-real issues. It will still, therefore, have to ensure that its claims are answerable to 'realness'. Thus IK can be debated

and critiqued along with other forms of knowledge and can develop dynamically to contribute appropriately to current issues.

7.4.6.4 *Avoiding the manipulative and condescending use of indigenous knowledge*

In this paper, I argue that we assume IK has the same ontology (stratified into the real, the actual and the empirical) as any other knowledge. This means engaging critically with IK assertions in the same way that we would any other assertion. An IK knowledge that is given the same status as any other knowledge, can no longer be referred to condescendingly. The equal status of IK knowledge will also be the opportunity for Western researchers to use IK that previously seemed unscientific because it was not measurable. Given the acceptance of musement as a valid logic, if the researchers are trying to ignore a piece of IK by saying: "But, it can't be measured!", then the indigenous peoples can say: "So what?", and insist the IK is taken seriously via retroductive criteria of validity that allow a stratified reality (i.e. things can be real even if not measurable or actually present). An epistemology that acknowledges musement will not prevent challenges to indigenous peoples knowledge. However, since IK will now hold its own with other knowledges, this will no longer be a problem. Previously, these challenges were avoided because of the idea that, as phenomenological artefacts, IK should not be expected to relate to a shared world.

7.5   CONCLUSION

In social science in general, and in IK specifically, musement (retroduction) should be an accepted logic, along with deduction and induction. This is because it suits aspects of social science and IK that are not always empirical. The usefulness of this position is illustrated by demonstrating how the acceptance of musement might help overcome some current ethical problems in IK, especially as it pertains to environmental and health education. To this end, I suggest that the use of musement in IK can allow Western EE practitioners to engage honestly and non-condescendingly with IK. It

would require neither that researchers suspend their ontological commitment to 'reality', nor that they avoid the spiritual/non-empirical aspects of IK. Accepting musement as a valid form of reasoning means taking IK as seriously as any other knowledge, with the same acknowledgment of the lack of certainty of any knowledge. Taking something seriously means being able to critically discuss issues within it, perhaps even to disagree with it. Thus, Western EE practitioners should be able to engage in discussions with indigenous people as to the 'truthfulness' of particular IK, whether dealing with spiritual or other non empirical matters, just as they would discuss the truthfulness of a scientific hypothesis with peers. Truthfulness in IK will often be measured by the effects of belief in god or spirit on ethical behaviours. Taking IK seriously also means being able to generously and actively engage with IK, as we seek to reimagine a new basis for normative ethics.

CHAPTER 8 A REVIEW OF 'THE CONTEMPORARY BRITISH NOVEL',

BY PHILIP TEW (2004)

Originally published as:

Price, L. (2006a). The contemporary British novel. By Philip Tew. (2004). *Journal of Critical Realism*. 5(2), 397-426.

8.1   INTRODUCTION

In this book, Tew explores how authors of contemporary British fiction and literary-critique have variously treated a number of themes, such as race, class, time, space and what it means to be 'British'. Tew's aim is to provide literature students with a theoretical framework that will assist them in their analysis of British fiction. He includes work from a wide variety of authors, such as Martin Amis, J. G. Ballard, A. S. Byatt, Jonathan Coe, Angela Carter, Jim Crace, John Fowles, Kazuo Ishiguro, James Kelman, A. L. Kennedy, Hanif Kureshi, Toby Litt, Ian McEwan, Caryl Phillips, Salman Rushdie, Iain Sinclair, Zadie Smith, Will Self and Jeanette Winterson. Tew demonstrates, amongst other things, how a major concern of British fiction is politics and identity and the link between the two.

In this context, Tew is attempting to achieve what writers such as Sayer and Norris have suggested is possible i.e. the methodologically consistent use of certain postmodern analyses and writing strategies within a neo-realist philosophical framework.[47] Potentially, the advantage to critical realism of the use of postmodern techniques, when removed from their usual irrealist milieu, is that they can achieve shared postmodernist and critical realist goals, such as:

- The prevention of the mistakes of foundationalism, actualism, absolutism and hypostatisation and the insistence on the necessity of pluralism in interpretation.
- The avoidance of a punctualist, and endist view of spatio-temporality.

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[47] C. Norris, *Reclaiming truth: contribution to a critique of cultural relativism.* London: Lawrence and Wishart, 1996. A. Sayer, *Realism and Social Science.* London: Sage Publications, 1999.

- The avoidance of a portrayal of identities or 'objects' as ontologically primary.

Certainly, the books that Tew examines exhibit a variety of literary techniques to achieve the above aims, with varying degrees of success. Some manage to tread a more realist path, with others falling dramatically, and nevertheless entertainingly, into the realm of irrealism. The techniques these books use to achieve the above three goals merit an entirely different discussion and I will not attempt to follow this thread in this review.

I would prefer to explore Tew's underlying philosophy, which I argue is not critical realist, despite Tew's references to realism and Bhaskar. I would then like to demonstrate how Tew's philosophy leads to a position on identity, in particular identity in/of marginalised people, which is not supported by critical realism.

8.2   TEW'S POSITION IS NOT TYPICALLY CRITICAL REALIST

The following example illustrates the poor fit between Tew's philosophy and critical realist philosophy. Tew writes of Bincoe's *Short Guide to Games Theory*:

> *Although not strictly antithetical to 'postmodernism' its stated ambitions call for both the recognisable and contemporary 'ethics' which signify a movement from heterogeneity and a deconstructive centring toward apprehensible meaning. As I will explore in parallel to fictional trajectories, criticism is finally moving in a similar direction. (p. 4)*

Here, it appears Tew has linked the move away from 'a deconstructive centring' (a move championed by critical realism) with reduced heterogeneity. Yet my understanding of critical realism is that it embraces heterogeneity. It is true that ontological realism insists we avoid ludism and judgemental relativism, resulting in the 'apprehensible meaning' Tew mentions. However, because of a commitment to epistemological relativism, this does not then exclude plurality, or 'heterogeneity', of interpretation.

Additionally, whilst Tew usefully explores how British authors have used a variety of writing styles and techniques to develop a trend in contemporary fiction and criticism away from postmodernism towards realism, Tew himself does not reflect the ontological claims of critical realism. For example, he seems unaware that critical realism assumes that categories are real. He also considers the dialectics of contemporary fiction but his own work is not itself dialectical. This is evident in his position on the contribution of contemporary fiction to political commentary, specifically his call to avoid the separation of marginalized peoples into categories, resulting in reduced heterogeneity of identity.

8.3   IN THE ABSENCE OF CRITICAL REALIST DIALECTICS AND
       CATEGORIAL REALISM, TEW FAILS TO ADEQUATELY THEORISE
       IDENTITY

In dealing with contemporary fiction's treatment of political commentary, Tew makes the point that neither the 'high-modernists' nor the 'post-modernists', 'acquire any purchase on the nuances and differentiations within the subtle experiences of inhabiting a prejudicially socialized identity outside of the 'repressed' so-called 'minority interests' which are often in the majority of course, throughout the world' (p. xii). He states later:

> *[I]n practice a determined effort to read texts in terms of gender, ethnicity, postcoloniality and radical issues […] ended in ghettoising or marginalizing such creative efforts […] Like so much critical practice it raises some awareness […] but their very separation as separable categories of voice and subjectivity maintains the dynamics of the too knowing categorizations of oppression.*
> (p. 183).

What I understand Tew to be saying here is that the crude, reified categorization of oppressor and oppressed can backfire in that it can be used by the 'too knowing' to further oppression. This categorization might also create a reverse oppression, where the previous oppressors become themselves prejudiced. In this case, Tew suggests (p. xii) just such a reverse oppression in the claim by Ashcroft *et al*, that a certain RS-

English (Received Standard English) Britishness, and by association, certain British RS-English speakers, continues to 'dominate cultural production in much of the world'. Sounding much like a member of an oppressed marginal group, offended by a negative stereotype about themselves, or at least like someone offended on their behalf, Tew says of this claim 'In all seriousness, I find it offensive.' (p. xii). The potential for crude categorisations to be used for reverse prejudice is an increasingly acknowledged phenomenon and Tew is right to point this out.

For example, Mamdani (2001), like Tew, blames political categorisation, whether for good or evil, as the underlying mechanism required for oppression. He applies this to the mass genocide in Rwanda and writes:

> *The great crime of colonialism went beyond expropriating the native, the name it gave to the indigenous population. The greater crime was to politicize indigeneity in the first place: first negatively, as a settler libel of the native; but then positively, as a native response, as a self-assertion.*
> (p. 14).

Tew is in the company of Bhaskar in suggesting that we should be aware of the suffering of the oppressors. Nellhaus (2005) demonstrates this point, as well as indicating the poor level of acceptance this position has from many academics, 'Roy Boy pissed off a bunch of us when he spoke sympathetically of the upper classes' suffering. Jeez, where are those lachrymose violins?'[48]

8.4   PERFORMANCE CONTRADICTIONS IN TEW"S AVOIDANCE OF CATEGORIES

Related to his aim of avoiding oppression of the oppressors, Tew prefers a less politicised categorisation of marginalized groups, styling them as 'previously-marginalized' (p. 183). I would suggest this is a performance contradiction. Tew wants to avoid prejudicial categorisation, but must nevertheless refer to the marginalized in some way. To be honest, belonging as I do to some marginalized

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[48]T. Nellhaus, *Re: [Critical-Realism] Prefigurationality.* Continuation of the Spoon Bhaskar List . marx.econ.utah.edu/archives/ bhaskar/2005m08/msg00003.htm (accessed 21 February 2006)

groups myself, which I experience daily as oppressed despite arguments to the contrary, *I* was offended by Tew's use of the phrase 'previously marginalized'; as if the answer to the problem of political categorisation was simply that it used to be a necessary evil, but is now no longer desirable. We can avoid the potential problems of categorisation *not* by stopping the categorisation, as Tew might imply, but by seeing it as a requirement of our epistemology.

8.5   AVOIDING OPPRESSION OF OPPRESSORS WITHOUT AVOIDING
        CATEGORIES

There are ontologically real referents which are oppressed black people, or women, or homosexuals, just as there are culturally and linguistically constructed aspects of these categories. In critical realism, we term these the intransitive and transitive dimensions of reality respectively. Entities, including identities, always come from somewhere and are moving somewhere. They are processes, but we often experience them as individual things. The oppressed are related to the oppressors in an on-going dialectic of mutual co-construction, perhaps Bhaskar would describe them as being mutually efficacious with regard to each other's being. Bringing about transformation of oppressive relations does not mean changing the oppressor into a good guy, or the oppressed into a bad guy, but rather it means changing the relations of oppression. Note how this shifts the emphasis from good guy vs. bad guy to their mutual relationship. To put it another way, if one wanted to reduce inequality, one would not focus only on the philosophically empirical and positive, the victims and oppressors. Rather one would acknowledge the epistemological necessity of the identification of such states of being but nevertheless focus behind these to the on-going relations that sustain them.

Bhaskar (2002) suggests that it is only when the oppressed have taken stock of their own on-going role in the oppression, that they can achieve emancipation:

> *When we have all cleared the rubbish from ourselves we cut off the supply*
> *lines to oppression, servitude and unfreedom. Everything in the social world*
> *subsists on our love, on our creativity, it could not exist for a moment without*

them. But oppression is real. These are real structures, real systems but we have the capacity to cut off their supply lines.
(p. 318)

Thus, agents committed to social transformation would be aware of the hybridity and complexity of identity but their battle would not be one that insists primarily on defining the enemy. Rather, it would look at the system of relationships behind the inequality, which is constantly reproduced, through the activity of all involved. Elsewhere, Bhaskar explains this concept, in terms of facts rather than identities and for scientists rather then people in general, but the principles are nevertheless relevant:

A degree of necessity attaches, then, to positivism in the transitive dimension: its conception of a fact reflects our spontaneous consciousness in perception. Nevertheless it is an ideological category that scientists in their reflective consciousness must transcend. It is as Marx said …merely 'the phenomenon of a process [viz. production] taking place behind it' (in Bhaskar, 1989: 61).

To give an example, rather than identify 'capitalists' or 'men' as the oppressors in the fight to ensure class and gender equality, we would consider the stratified (real, actual and empirical) relationships/processes behind these categories. This is not the same as 'blaming the victim' but it does acknowledge that everyone's daily practice reproduces (but possibly also transforms) the current state of affairs. Bhaskar puts it thus:

> *The conception that I am proposing is that people, in their conscious human activity, for the most part reproduce (or occasionally transform) the structures that govern their substantive activities of production. Thus people do not marry to reproduce the nuclear family, or work to reproduce the capitalist economy. But it is nevertheless the unintended consequence (and inexorable result) of, as it is also the necessary condition for, their activity.*
> (p80)

Therefore, whilst we must move away from the old identity arteriosclerosis, or hardening of the categories (to paraphrase Haraway, 1997: 139) this does not require that we avoid reference to different identities. Rather, we can avoid *absolute* identity

categories by invoking a model of identity as contingent and spatio-temporally emergent, whilst nevertheless real. According to Bhaskar (2000):

> *A radical account of the self emerges. What is normally understood by the self is an (illicit) abstraction from a much deeper and broader totality… (Instead we have a) stratified, rhythmically developing, concretely singularised – and vastly expanded – concept of the self*
> (p3)

8.6   CONCLUSION

Tew's book is a useful indication that critical realism is becoming accepted in domains previously the impenetrable territory of postmodern irrealism. For this reason, it is a welcome development. Apart from technical quibbles about Tew's understanding of critical realism, my main concern was Tew's comment that contemporary fiction is mistaken to continue to raise consciousness around the plight of marginalized groups in Britain and his use of the term 'previously marginalized' to denote *inter alia* women, non-whites and homosexuals. He juxtaposes these comments with quotes from critical realism, and thus, by association, uses critical realism, or at least a neo-realism, to justify his position. I understand that his motive behind his position comes from the valid concern that such categorisations can lead to reverse oppression or in the end strengthen the oppressor *vis-à-vis* the oppressed. However, I would argue that Tew's solution to the problem is distinctly non-critical realist.

CHAPTER 9 JOKING AROUND IN ZIMBABWE, UNDOING AND REDOING PARTICIPATION

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> *I insist that social relationships include non-humans as well as humans as socially …active partners. All that is unhuman is not un-kind, outside kinship…*
> (Haraway[49] in Goodeve, 2002)

> *…we need something new…Something is missing. There has to be a better way of going about things.*
> (Chambers, 2004:16)

9.1   INTRODUCTION TO OUR PARTICIPATORY PROBLEM

In Zimbabwe, I teach a participatory course on environmental education to trainers. The course is an adaptation of a course designed by Rhodes University, South Africa. It gives participants a background in educational theories and has a strong theoretical component built around a focus on practice.

During the time that the course was being delivered to non-industry participants, the theoretical component of the course was whole-heartedly embraced. We assumed that calling the course 'participatory' presupposed the need for this theory because within the theory were the tools for emancipation. And participation, we believed, had an emancipatory mandate.

However, when we decided to redevelop the course for industry we were uncomfortably surprised by the request from a majority of industry participants to reduce the theory and concentrate solely on skills-based training. This paper documents how this discomfort resulted in my adjusting my view of participation.

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[49] One has to see the jokes in Haraway's work; the power of irony to make serious points that otherwise go unsaid (Goodeve, 2002). This paper is what Haraway would call a serious joke.

9.2   PUTTING TRUTH TO THE VOTE: OUR PARTICIPATION AS IT WAS
          WHEN WE BEGAN

The participatory aspect of the course was reflected in a commitment to being responsive to the needs of the participants. To do this we ensured that participants were involved in deciding course content and structure, within certain limits, those limits being set by the topic of the course and practical details such as time available for workshops.

During the sessions designed to facilitate participation, many suggestions for improvement of the course were made and responded to. The simple rule of handing over the stick worked well. I cannot say that I agreed with all the participant requests, but none insisted that I act in ways that went against my integrity. However, this comfortable situation was over-thrown when a majority of industry participants requested a reduction of the theory in the course, to be replaced with a focus on skills-based training.

9.3   THE QUESTION MARK OVER OUR PARTICIPATORY PROCESS: WHY
          WE FELT WE COULDN'T SUPPORT A SKILLS-BASED TRAINING
          PROGRAMME

Fairclough (1999) has outlined some of the problems with seeing the discourse and practice of educators as 'skills'. First, it assumes that a skill can be freely transferred from one context to the other. Second, it assumes that what we have been taught as a model (in this case, a model of how to teach) translates directly into what is actually said or done in practice. On the contrary, our action is a complex matching of models with immediate needs. What trainers actually do may be significantly different from any model, ambivalent between models, or a baffling mixture of models. Third, it assumes that what we do is a mere matter of technique. It does not acknowledge that techniques are weighted with power-relations. For example, the apparently innocuous skill of careful preparatory planning can effectively prevent participation by refusing participants the opportunity to say how they would like to spend time and by making

spontaneous discussion difficult. By maintaining that planning is mere technique, the powerful can insist on this practice and so avoid challenges to the status quo. The theory in our industrial participatory course draws attention to the power-implications of our methods. They are viewed not as simple skills but as choices that affect power relations.

Therefore, more skills and less theory seem contrary to participatory ethics. Yet, participatory trends in curriculum development would tend to insist that we heed the calls for skills-based training; it is what most industrial participants say they want.

9.4   PARTICIPATION UNDONE

Currently, participation has a split personality. As one persona, it underplays the participation of the real. In its other persona, it indulges in questionable dichotomies, that is, overly strong assumptions of opposites such as wealthy and poor. An effect of this split personality is an inability to support appropriate action. Let me explain further.

9.4.1   **Underplaying the participation of the real**

When Chambers (2004:7) asks "Whose reality counts?", he is assuming that there is no shared reality, only purely subjective realities. To avoid the resulting problem of being unable to decide between realities for the purposes of decision-making and action, Chambers implies that poor people's realities are more right than other realities. Participation practitioners are encouraged to "hand over the stick" (Chambers, 2004:9).

In practice, "handing over the stick" implies a confusion between truth-seeking and democracy. What is true is assumed to be that which the majority of the poor people consider to be true. This faces the problem that the majority of poor people may not have the best version of truth. Apart from well-debated questions such as the heterogeneity of those groups, and the possibility of silences within them, such as

women's silence, there is the philosophical question that a version of truth held by a majority might be less adequate than other competing versions. This is a separate question from democracy, which is people's right to vote to decide what happens to their communities. The place for truth is in the debates before the voting; it does not itself involve voting. Confusing truth with democracy reduces the efficacy of both.

Participation's irrealism (assumption that there is no reality beyond our language constructions of it) occurred because there was a necessary flight from positivism, the belief that the only valid knowledge is measurable, replicable scientific knowledge of an objective, real world. Positivism denied the importance of interpretative knowledge, knowledge of the non-empirical and the power of language to influence the real. Instead, participation, in line with much sociological thinking, assumed that: "Words are a starting point. …To be human is to exist in language. In language we coordinate our behaviour, and together in language we bring forth our world." (Chambers, 2004:2). "To bring forth…", implies a god-like role for humans. What we think, leading to what we say and what we do, makes the world. We "construct our realities" (Chambers, 2004:13). When it is in this irrealist persona, participation has too little 'participation'. It forgets to facilitate the contribution of non-humans in consensus-building debates about reality and it forgets the role those non-human entities play in co-constituting reality.

9.4.2   Tendency towards strong dichotomies

As its other persona, participation over-plays the role of 'things', going so far as to 'thingify' human beings. It assumes hard dichotomies. For example, participatory writing refers to 'them' and 'us', 'powerful' and 'weak', 'wealthy' and 'poor', 'oppressed' and 'non-oppressed', 'donors' and 'recipients' and 'farmers' and 'researchers'. The use of hard dichotomies goes against the grain of many practitioner's primary epistemological beliefs, i.e. their beliefs about how we gain knowledge, based on beliefs about what "is". Hard dichotomies contradict the irrealist idea, described above, that there is no reality except our language; it implies the existence of an absolute reality of objective, separate things 'out-there'.

Hard dichotomies break down when scrutinised. For example, the dichotomy of 'wealthy' and 'poor' breaks down when we realize that there is no simple objective way to decide wealthy and poor. More than this, the category 'wealthy' needs the category 'poor' to make any sense and the way that we define 'wealthy' and 'poor' in some ways actually constructs those things, as we can see if we consider how one scientist's decision to define 'wealthy' as receiving US $10 000 per annum will get significantly different figures for wealth compared to a scientist who defines 'wealthy' as receiving US$100 000.00 per annum. These absolute categories belie the intimately networked nature of 'things'; what is forgotten is that the different things are distinct but not separate and there is a role to play for interpretation in their formulation.

Nevertheless, despite practitioner's academic acknowledgment of the inadequacy of hard dichotomies, they often feel compelled to use them. This is because acts such as writing/speaking/decision-making and, via decision-making, acting in the sense of acting to improve our circumstances, require that we dichotomize, or name. We need to acknowledge different things in order to speak/write/decide (and thus act) at all. Therefore, such practitioners must live with contradiction, on the one hand wanting to avoid strong dichotomies but on the other hand supposedly compelled to use them to allow action.

A possible outcome of participation's propensity for dichotomizing is violence. In Zimbabwe, "thingification" of the white commercial farmers as the perpetrators of inequality, without seeing how these farmers were co-constituted with black Zimbabweans[50], was followed by their removal from their homes. Not only did this destroy their livelihoods, and some lost their lives, but black Zimbabweans are as a result facing food shortages and starvation. Hurting the 'other' often results in hurting the 'us', since we are distinct, but not separate. In Chamber's (2004) work, the dichotomizing tendency has resulted in a noble but simplistic request that the wealthy give some of their wealth to the poor. Ironically, Mugabe (2000) made the same

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[50] In a cyborg world there is no such thing as racial purity.

noble but simplistic request of the wealthy white farmers. He felt it was regrettable, but understandable, when the war veterans gave up waiting and resorted to violence.

In the industry course, we were asking participants to make choices about the content of a course that was supposed to transform industry practice from environmentally unfriendly to friendly. We had had years of opportunity to study theories of learning and theories of agency. Their exposure was to these very real, but much-debated 'things' (I'll call these 'things' cyborgs later) was minimal. The industrialists' majority 'reality' was that they needed skills training. Our 'reality' was that skills training without critical theory entrenched inequalities. By our participatory standards, their 'reality' should have dominated.

Thus we see the split personality of participation. On the side of too little consideration of reality, the truth of transformative teaching methodologies would largely have been ignored. This would have resulted in a poorly informed view of reality being given precedence and a lost opportunity for transformation. On the side of too much dichotomizing, in this case dichotomizing participants (empowered with the stick) and experts (disempowered with no stick), a kind of violence would have been enacted on the experts for whom a commitment to social justice and transformation of the status quo was important.

9.5   PARTICIPATION REDONE

First, I suggest that we change our choice of words to explain participation.

- Rather than talking about how language 'creates' the world, we should perhaps consider how it 'transforms' or 'reproduces' the world. The latter two words imply a world that pre-exists us and avoid the sense that, god-like, we create our world with our words.
- I would also suggest we stop talking about people's 'realities'. This implies multiple universes existing parallel to each other, but not touching each other. I prefer the alternative of distinguishing between transitive and intransitive realities.

The intransitive reality is the essential one that we all share; the transitive reality is the one that includes interpretation and depends on its relationship with us.

- We should perhaps stop using language that implies there is an absolute knowledge. Not even poor people have absolute knowledge. We are therefore required to listen to all knowledge claims (note the sense in which this is part of a democratic process, but not the voting part) and to assess them on their merits. We can choose between better and worse knowledge.

Second, I want to suggest a technique designed by Merchant (2003). She describes a partnership ethic, in which all the stakeholders, including the non-humans, are allowed to speak. "Both nature and humans will have voices, and both voices will be heard" (Merchant, 2003:229). In a similar vein, Haraway (1991) suggests that our world is populated by cyborgs. Humans are cyborgs, co-constituted with non-humans and non-humans are cyborgs, co-constituted with humans. The idea that we are all cyborgs, that is, mutually constituting, allows us to be conceptually distinct, yet not separate from each other and implies an equality that requires we give the non-humans a voice. At a practical level, a partnership ethic involves allocating people to 'speak' for the non-humans, for example trees, soil and even social structures such as institutions or mechanisms such as 'how we learn', with all the caveats of concern for trustworthiness that accompany moments when people speak for others.

Thirdly, I want to suggest that communities, after careful consideration of knowledge claims, should then put the question of how to proceed to the vote. This suggests an acknowledgment of the usefulness of expert and lay knowledge of cyborg entities. Participants can then examine knowledge claims in an attempt to make informed decisions. In other words, rather than putting truth to the vote, we put decisions to the vote.

Fourthly, I want to suggest that we stop obsessing about action. This obsession is an artefact of participation's split personality. The action that we thought was missing will become obvious to us, it has been there all the time, once we move beyond the uneasy oscillation between irrealism and strong dichotomies. Since we are constantly

reproducing society through our daily activities, we can transform our reality by not doing, that is, by not reproducing it. Sometimes the best form of action is inaction, as Ghandi showed us with his concept of non-violent non-cooperation.

9.6   CONCLUSION

In the case of our industrial course, we did not include the cyborg 'what we need as learners to be empowered' as a participant in our stakeholder discussions. We confused our search for truth with democracy. We also oscillated between, on the one hand a denial that there was a difference between the tutors and the participants (we called the tutors 'stutors'), and on the other hand a hard dichotomy between the tutors and the participants which resulted in potential violence against the one half of the dichotomy. Rather, we should have engaged in discussions amongst all the stakeholders, including the non-humans, in order to arrive at an informed place that could serve as a (fallible) platform for democratic decision-making.

CHAPTER 10   CONCLUSION

This collection of papers represents my thinking on the subject of politics, with particular reference to the implications of political choices for environmental education. In this conclusion, I will summarise the way forward suggested by each paper.

In Price (2002) (Vol.2, Chap.2), I attempted to avoid criticizing the actual company of ESKOM or the writers of the annual reports. I did this by referring to Latour (1993, 1999) who points out that objects such as ESKOM are not the starting points of inter-relationships but the results of those inter-relationships, which makes us all implicated. I drew attention to the complexity of environmental issues and set up a challenge: that we create expectations of our businesses, such as ESKOM, that they move beyond their current globalising, dominance rhetoric towards power-sharing rhetoric, where the voices of the marginalized, and their call for greater environmental protection, are not silenced.

In Price (2004a) (Vol.2, Chap. 3), I suggested that instead of dishonest ontological and epistemological movements, illustrated by both Graham and Mugabe (and Phineas's love affairs), we should be able to present in our analyses in such a way that no sleight of hand is required. I felt that Haraway's (1991, 1997) and Bourdieu's (1998) interpretation of this methodological approach would be valuable here. In this approach, instead of critically casting blame onto 'objects' (of the naively real variety), and then suggesting a voluntaristic sleight of hand to remove those objects, we should rather look into the *space* between the quasi-objects and we should also look from several points of view as well as our own. We should attempt to change the *networked relationships*, aiming for an outcome that will allow changes in the way, for example, 'big business' or 'white farmers' enmesh with us, so that the world is a better place. Since change is measured by degree and direction (implying history and context), this may, or may not, require that these quasi-objects be transformed beyond recognition.

In Price (2004c) (Vol.2, Chap. 5), I did not give much detail about a way forward, as this paper was mainly a critique of the influence of poststructuralism on environmental education. However, I did suggest that critical realism might offer a useful way to avoid the problems outlined.

In Price (2005a) (Vol.2, Chap. 6), I concluded that a social epistemology for environmental education research should allow knowledge to be social and contextual in the sense of allowing different, pluralistic interpretations, not in the sense of making truth status dependent on social consensus. I argued that social epistemology should be strategic and pragmatic, in the sense of mobilising knowledge appropriately, not in the sense of deciding content in order to further preconceived ideas of what is good for society. I also argued that social epistemology should be democratic and participatory, in the sense that it should ensure a voice for all actors, human and non-human, not in the sense that we should put truth to the vote. Finally, I suggested that a potentially fruitful set of metaphors for this kind of social epistemology might evoke images of networks, rhizomes, webs and relationships.

I recommended in Price (2005b) (Vol.2, Chap. 7), that science in general, and IK specifically, should accept musement (retroduction) as a valid logic, along with deduction and induction. I argued that the use of musement in IK could allow Western EE practitioners to engage honestly and non-condescendingly with IK since it would require neither that researchers suspend their ontological commitment to 'reality', nor that they avoid the spiritual/non-empirical aspects of IK.

I ended Price (2006a) (Vol.2, Chap. 8), my review of Tew's (2004) book, with the comment that whilst the book was a useful indication that critical realism is becoming accepted in domains previously the territory of postmodern irrealism, it nevertheless did not exhibit an accurate understanding of critical realism. My main concern in this regard was Tew's comment, which I considered to be non-critical realist, that contemporary fiction is mistaken to continue to raise consciousness around the plight of marginalized groups in Britain and his use of the term 'previously marginalized' to

denote such groups as women and non-whites. I argued instead that we should remain with our categories, but change of perception of these categories, perceiving them as processes, intimately networked into the world.

In Price (2006b) (Vol.2, Chap. 9), which was a continuation of Price (2004b) (Vol.2, Chap. 4), I suggested a way forward for curriculum development in which we might include the cyborg 'what we need as learners to be empowered' as a participant in our stakeholder discussions. I also suggested that we should not confuse our search for truth with democracy and that we should avoid an oscillation between, on the one hand a denial that there was a difference between the tutors and the participants, and on the other hand, a hard dichotomy between the tutors and the participants. In this case, such an oscillation resulted in potential violence against one half of the dichotomy. I suggested that we should have engaged in discussions amongst all the stakeholders, including the non-humans, in order to arrive at an informed place that could serve as a (fallible) platform for democratic decision-making.

A common thread of the conclusions of these papers is that they have tried to avoid a politics for environmental education that enables violence. In this respect, I would argue that this thesis is consistent with non violent non conformance politics, such as that associated with Mahatma Ghandi (Cf. Vol.2, Chap.3, note 14). However, although this is a conclusion of conclusions, it should not be considered the final word. In keeping with the uncertainty and fallibility of my methodology, and since the process of learning is an on-going one, I would like to end this volume mid sentence…

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