# KNOWLEDGE AND POWER: THE ILLUSION OF EMANCIPATORY PEDAGOGIES WITHIN ENVIRONMENTAL EDUCATION[1]

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The increased calls for transformation in response to the socio-ecological 'crisis' and the movement towards more sustainable societies; the dramatic political changes in South Africa, Eastern Europe and elsewhere; the epistemological shifts in the conceptualisation of science, education and research, and the paradoxes of the world of the late twentieth century provide the context for this paper. The need for educational organisations and educators to make an effective curriculum response to environmental and development concerns legitimises socially critical approaches to environmental education and a concern with processes of social change. We are faced, therefore, with dilemmas of personal, professional and political change: the need for transformation of both actors and structures.

The paper highlights the unquestioned assumptions which underlie growing calls for social transformation and considers the significance of a socially critical orientation to environmental education in relation to processes of social change. This orientation draws on the critical theories underpinning 'liberatory' or 'emancipatory' pedagogies, a key concern being the need to 'empower' perceived 'marginalised' groups and individuals and for 'transformatory intellectuals' to support 'capacity building' among such marginalised groups and individuals.

I highlight a number of concerns I have about this orientation and emphasise the need to re-think some aspects of the project. The theoretical considerations of the paper are borne out of particular instances of trying to actualise the aims of a socially critical environmental education, both within my professional practice as a teacher educator, and as a result of a school based collaborative action research project with a small group of primary teachers (this is reported elsewhere).

## INTERNATIONAL EXPECTATIONS

There is a growing public awareness that human economic activity is increasingly undermining its own future and that of other life-forms, through unsustainable patterns of living. This growing awareness, often articulated as an environment-development 'crisis'[1] has led to calls for changes to improve the situation. In the World Conservation Strategy (IUCN, 1980) scientists asked for changes in the behaviour of entire societies. Others have called for a 'new world ethic' (Fien, 1993a; Milbrath, 1984), a 'new ecological ethic' (Schleicher, 1989) and changes in those world views which sanction domination and exploitation (Huckle, 1993; Merchant, 1983). Indeed, so profound are the desired changes that they have been termed social transformation (Janse van Rensburg, 1994:3). The environment has become a major issue in the political arena both nationally and internationally.

These calls for social transformation tend to offer a vision of a future world which meets the needs of *all* the global community without undermining the integrity of the biosphere:

> Integration of environment and development concerns and greater attention to them will lead to the fulfilment of basic, improved living standards for all, better protected and managed ecosystems and a safer, more prosperous future. No nation can achieve this on its own, but together we can - in a global partnership for sustainable development. (UNCED, Agenda 21, 1992)

Over the last two decades environmental education has progressed from relative obscurity to being regarded as one of the key instruments in response to the socio-ecological 'crisis' and in the development of more sustainable societies (Sterling, 1994:8). Intergovernmental reports have endorsed the role of education and educational research in helping to bring about the extensive social changes needed in moving towards more sustainable societies.

Calls for social transformation need to be placed within wider discussions of social change, which have pointed to changes in a range of elements of contemporary society. Huyssen (1986:181) refers to a noticeable shift in sensibility, practices and discourse formations which distinguish a post-

modern set of assumptions, experiences and propositions from that of a preceding period. By its very nature, talk of social change on such a grand scale is imprecise, even speculative. It is unclear whether these changes mark the end of the modern era and the advent of postmodernity, or at least the beginning of the end, or a more radical phase of modernity (what Giddens, 1990 has called 'high modernity' and Beck, 1992 calls 'reflexive modernity'). Yet there is sufficient evidence to suggest that the changes which underlie the concept of postmodernity are real and that while it is difficult to gauge their extent and future, they are more likely to continue than not (Gilbert, 1995:13).

## UNQUESTIONED ASSUMPTIONS

The calls for global transformation bring into sharp focus the question: to what extent does environmental education and environmental education research have a potential to contribute to social change? Can schools be sites of transgressive practices (McLaren, 1994)? Or is this rhetoric merely 'over-claim', the over extension of the capabilities of environmental education? Popkewitz (1984, 1991) makes the point that education is often seen as a key contributor to processes of social change, despite sobering historical analyses that reveal the contrary. The 1992 Earth Summit concluded that:

> Education is critical for promoting sustainable development and improving the capacity of the people to address environment and development issues (UNCED, Agenda 21:221).

This immensely appealing rhetoric expresses a common and conventional view of environmental education and what it needs to accomplish:

> ... it is also critical for achieving environmental and ethical awareness, values and attitudes, skills and behaviour consistent with sustainable development (UNCED, Agenda 21: 221).

It appears that one of the challenges for education in the 1990's, and beyond, is to translate the rhetoric of the reports into reality: to turn the principles of sustainable development into reality. Yet, the reports seem to be formulating an instrumental or deficit view of environmental education, one in which the aim is to feed more information and awareness raising experiences into a rather linear process of fairly passive learning. Underpinned by the belief that raising awareness will lead to appropriate changes in attitudes and values, and eventually behaviour; and the implicit assumption that there are 'sustainable development' experts who know best, the elements of technicism, reductionism, individualism and behaviourism are conspicuous (Janse van Rensburg, 1994:5).

The rhetoric of the intergovernmental reports reveals assumptions of an essentialist authority (of the scientist and the teacher) grounded within an Enlightenment rationality and an historical project pursued chiefly in the name of emancipation, using universal categories and concepts that set up Western, white, middle class men's experiences as the norm.

## SUSTAINABLE DEVELOPMENT

The concept of sustainable development has become a significant part of the debate on global environment-development issues. However, the meaning of sustainable development and the means whereby it is to be realised remain contested. The concept has been shaped through the UNCED process and the dominant discourse of development, which has uncritically connected the two terms 'development' and 'sustainability' (Firth & Plant, 1994). The United Nations and national governments seem to have adopted sustainable development without questioning the assumption that growth and further development were necessary, let alone the assumption that they were possible (Chatterjee & Finger, 1994). The concept is being used to politically engineer a social consensus about the core values which ought to govern human interaction with the environment across all sectors of society: business and commercial, institutional, community and individual. I argue that we must collectively un-learn much of the dominant development paradigm of which modern societies are both the product and the victim, which is now promoting 'sustainable development' so vigorously; and much of which has been absorbed within environmental education.

## ENVIRONMENTAL EDUCATION

There have been many attempts over the years to outline and classify the sets of coherent values and beliefs (ideologies) which shape environmental education and educational research activity generally. Recent activity (Fien, 1993b; Huckle, 1995; Kemmis, 1986, 1991; Kemmis, Cole & Suggett, 1983; McTaggart, 1991; Sterling & Cooper, 1992) has been helpful in the identification of different

forms of environmental education and environmental education research, and of their potential to contribute to processes of social change. Such classifications are usually based on Habermas' (1972) theory of knowledge constitutive interests. Each of these is related to a philosophical stance that questions what knowledge is, how it is acquired and how it is used. Commonly, three orientations are recognised, though these orientations are often not construed as discrete categories by environmental educators, but rather as 'shifting territories' - which are closer or further apart from each other, and to a greater or lesser extent contested - highlighting the inconsistencies and ambiguities within any individual's standpoint (Janse van Rensburg, 1994:7). Drawing on ideological frameworks for the solution of environmental problems (Fien 1993b) and social change (Janse van Rensburg 1994),the three major orientations are:

* vocational/ neo-classical - for the restoration of social order, based on technical control and prediction; a management orientation,

* liberal-progressive - for the resolution of practical social problems, based on mutual understanding and communication; a community problem solving orientation,

* socially critical - for the reconstruction of society, based on empowerment and emancipation; a critical orientation.

These different orientations call for different kinds of environmental education within schools and they are well characterised in the literature (see above). In exploring the transformatory roles of environmental education Janse van Rensburg (1994) concludes that the most prevalent orientations all reveal modernistic assumptions which limit their potential to contribute to social transformation.

Elliott (1993:19) has argued that the development of environmental education in the last ten years has neglected to provide answers to the educational questions and issues it poses. He claims that environmental education has either been reduced to a passive process of knowledge acquisition or conflated with the promotion of some version of environmentalism, defined as a particular dogmatic set of beliefs about the ideal relationship between human beings and their environment. The outcome of the latter, Elliott (1993:19) suggests, is that educational systems have had difficulties in incorporating environmental education at the heart of the mainstream school curriculum. As such environmental education may suffer the fate of other ideologically loaded curriculum development enterprises that have emerged in schools, lingered for a time, and then vanished (e.g. 'Peace Studies', 'Development Education' and 'World Studies'). He questions whether the promotion of a 'sustainable development' perspective in schools is any more likely to command the professional and social consensus necessary to establish environmental education as a major and stable dimension of the school curriculum.

## EDUCATION FOR SUSTAINABILITY

The social, economic, political and ecological imperatives of the concept and processes of sustainable development have established a renewed agenda for environmental education which links it very closely with development education. The IUCN has described this new direction for environmental education as 'education for sustainable living', while others prefer to use the term 'education for sustainability, (Fien, 1995:23).

In recognising the significance of the concept of sustainability, I do not support the current formulation of national and international policies around the idea of 'sustainable development'. It is vital that educators, researchers and policy-makers all seek ways to ameliorate critical socio-ecological conditions through a critical exploration of sustainability, but I question whether the promotion of a 'sustainable development' perspective in schools will actually contribute in some way to social transformation. Nor do I consider that an 'education for sustainability' that promotes a pre-specified and pre-scribed set of goals and content an appropriate way and form of education most likely to contribute in some way to social transition.

Any reconceptualisation of environmental education will also have to be extended to an analysis of the relationship between education and the reproduction of the environmental values and practices of capitalist societies. Trainer (1990, 1994) has argued that both the overt and implicit (hidden) curricula of schools play a major role in reproducing the ecologically unsustainable values of [post-] industrial, affluent consumer society. We need to recognise that the education system is part of the instrumental rationality of late modernity (Firth, 1995).

## A SOCIALLY CRITICAL ORIENTATION TO ENVIRONMENTAL EDUCATION

The concern of this paper is with a socially critical orientation to environmental education in relation to processes of social change, as part of what has often been called the 'emancipatory' or 'liberatory' educational traditions. Such an orientation concerns itself with a critical understanding of society and seeks to empower students to participate in a democratic transformation (improvement) of society (Greenall Gough & Robottom, 1993:301).

There is evidence that environmental education is becoming characterised increasingly as socially critical by teacher educators in the United Kingdom (UK), Australia and elsewhere (see for example Di Chiro, 1987; Greenall Gough, 1990; Fien, 1993a & b; Huckle, 1991, 1993; Greenall Gough & Robottom, 1993; and Schreuder, 1994). To what extent schools are taking a more socially critical stance is more difficult to ascertain.

The most influential orientation is that underpinned by the theories of legitimation crisis, knowledge constitutive interests and communicative action developed by Habermas (1972). *The Deakin-Griffith Education Project* in Australia demonstrates how these theories can advance critical curriculum theorising (Fien, 1993a), socially critical environmental education (Greenall Gough & Robottom, 1993), research (Robottom & Hart, 1993) and education for sustainability (Fien, 1993b).

In the UK socially critical environmental education is due mainly to the curriculum development work of non-governmental organisations concerned with environment and development in association with teacher educators. Huckle's (1996) collaboration with WWF UK and the production of *Reaching Out: Education for Sustainability*, a professional development programme for teachers, is a case in point; as is the distance learning professional development programme of Firth and Plant (1994) *Environmental Education Through Action Enquiry*.

What follows is an outline of critical pedagogy's theoretical perspective and historical location, and its developing significance for environmental education. I then explore the implications for critical practices of, in particular, the work of Foucault. The paper then proceeds to high-light the often implicit epistemological stances of the various knowledge formations which environmental education has drawn on, and to use these to sketch an argument for an empirical epistemology and an agnostic stance to knowledge within a socially critical environmental education. The ultimate aim of the paper is to strengthen understanding of and educational practice within critical traditions.

## THE WORLD OF THE LATE TWENTIETH CENTURY: PROGRESS AND PARADOX

The question of schools as transgressive sites reflects on an historical moment that is marked by 'crisis' - of power, patriarchy, authority, identity, representation and ethics. This historical moment has been variously described as late modernity, high modernity, reflexive modernity and the postmodern. While the periodisation of modernity may be a matter of some dispute, it is a period characterised as torn between the ravages and benefits of modernism, as an age in which the notions of science, technology and reason are associated with not only social progress, but also with the excesses of human destruction of each other and of sustaining environments. It is an historical moment shaped by increasingly connected and economically integrated global relations, where the relations between its centres and margins are being redefined and the grand narratives of emancipation, whether from the political left or right, appear to share affinity with oppression and totalitarianism. It is a time which is witnessing dramatic political changes in South Africa, Eastern Europe and elsewhere. It seems what is at stake is a redefinition of democracy, knowledge and of 'progress' itself.

In the discourses of critical pedagogy the educational politics of emancipatory self- and social empowerment have, in the main, been articulated in epistemic relation to liberal conceptions of equality and participatory democracy. Despite the critique of liberalism's competitive individualism and technocratic rationality the agenda for radical pedagogy remains the restoration of a 'creative democracy[2] (Giroux, (1988: 202).

Nelson Mandela outlines the struggles for South Africa, the massive political and ethical agenda to be faced if we are to make democracy a substantive rather than a lifeless activity (Giroux, 1992:72). Mandela also makes the significant connection between democracy and the environment:

> At the top of the agenda of the Government's Reconstruction and Development Programme are the people... The RDP sets out the task of meeting the basic needs of everyone in South

African society, especially the poorest of our people, to develop human resources, to build the economy and to democratise state and society. The challenges we face are enormous...With the establishment of a democratic government, the conditions for successfully implementing policies of integrated environmental management are propitious (1995:5).

Are the recent events in South Africa and Eastern Europe representative of part of a broader struggle of oppressed peoples against all totalising forms of legitimation and cultural practice that deny human freedom and collective justice? Are the events calling into question all master narratives that make totalising claims to emancipation and freedom? Are we witnessing the emergence of new political and ethical discourses, ones that do not pit socialism against capitalism, but democracy against all forms of totalitarianism? And what are the implications for education?

## CRITICAL PEDAGOGY

The field of critical pedagogy is complex and fragmentary, but acknowledging the complexity is important in countering any suggestion of 'unity' within the discussion which follows. At the risk of over-simplification, critical pedagogy is positioned as that which attends to practices of teaching/ learning intended to interrupt particular historical situated systems of oppression. It is specifically concerned with societal relations of power and inequalities and oriented to collective and avowedly political notions of empowerment to effect social change. Such pedagogies go by many names: such as Freirean, Gramscian, radical, socially critical. With both overlaps and specificities within and between, each was originally constructed out of a combination of first generation Frankfurt School critical theory and the negation of false consciousness through ideology critique, Gramscian counter-hegemonic practice and Freirean conscientisation.

From Gramsci (1971) critical pedagogy derives an amalgamated concept of the subject, which is granted common sense, dialectical thinking and intellectual possibilities. Hegemonised subjects have the potential to contest their ideological positioning and historical condition, to assume a counter-hegemonic position from which to articulate the values and interests of subordinate groups. For Gramsci, while hegemonic control was powerful, diffuse and complex, it was not seamless. For critical pedagogy this means that it is within individuals and the many small but potentially powerful spaces within institutions of social and ideological control that counter-hegemonic discourses and practices can be organised. The school is one site where 'transformative intellectuals' should elaborate a critical language to enable creative and critical consciousness amongst students.

Freire's (1973, 1978) critical pedagogy of conscientisation provides radical pedagogy with the notion of teaching for critical consciousness. Freire's pedagogy begins from, rather than precludes, the students' problematisation of knowledge, language and lived experience. Its aim is to develop among the 'Oppressed' language and concepts with which to understand the ideological sources of disempowerment and voicelessness.

The above provides a powerful agenda for emancipatory education. The target of emancipation for Gramsci and Freire are the oppressed working class poor. For Frankfurtian critical theory, all Western culture was oppressed by a repressive technicist and instrumental rationality. Power and the sources of domination in all three theoretical frameworks reside with ruling class interests expressed in both economic and cultural structures (Luke, 1992:28). Such critical theory translated into a pedagogical agenda argues for a decontextualised essentialism, for realism and for a generalised emancipation from generalised social oppression and psychological repression.

While critical pedagogy has its roots in Marxian analysis of class, more recently there have been efforts to appropriate certain strands of the feminist, poststructuralist and postmodern critique, in an attempt to consider the historically and discursively constructed subject and to revitalise two decades of radical critique.

McLaren (1994:321) argues that critical pedagogy reveals how mainstream approaches to meaning in school settings instantiate a formulaic repetition of sameness and reify a world order that represents itself as natural and commonsensical. The possibility of alternatives is thus denied in the act of turning the inert present into a social fate. For the criticalist educator, the belief that knowledge is removed from history, above politics and immune from the realm of the ethical, nullifies the potential of classrooms to be sites of 'transgressive practices'. Instead they reproduce dominant race, class and gender relations and the values of the dominant sociopolitical order.

Giroux (1992:28) delineates radical pedagogic practice as border pedagogy, which is seen as a new politics of cultural difference. Here educators are seen as cultural workers involved with a project intended to mobilise knowledge and desires that extend the possibilities for creating new public spheres within a reformulation of democracy. It is attentive to developing a democratic public philosophy that respects the notion of difference as part of a common struggle to extend the quality of public life. It presupposes not merely an acknowledgement of the shifting borders that both undermine and reterritorialise different configurations of culture, power and knowledge. It also links the notion of schooling and the broader category of education to a more substantive struggle for a radical democratic society.

Within the field of critical pedagogy today two main discursive strands can be recognised (Gore,1992:55). The central distinction between the two strands centres on different approaches to pedagogy. One strand emphasises the articulation of broad (and shifting) social and educational visions (as exemplified by Giroux and McLaren), while the other shows greater concern for instructional practices in specific contexts (as exemplified by Freiere and Shor).

## CONCERNS WITH CRITICAL PEDAGOGY - THE WORK OF FOUCAULT

I now want to articulate a number of concerns with respect to critical pedagogy, namely:

* the need to re-think the conception of power,
* the theoretical pronouncement of critical discourses as emancipatory,
* the danger of an over-optimistic view of agency,
* the need for a more contextualised consideration of empowerment, in terms of subjectivity, specific contexts and language.

Calls to empower students to participate in the democratic transformation of society often contain realist and essentialist positions regarding subjectivity, which are neither acknowledged specifically nor developed theoretically. I aim to show that frameworks and concepts derived from feminist appropriations of poststructuralist discourses, especially those of Michel Foucault, necessitate and help initiate a re-thinking of emancipatory discourses and practices. They offer a more sensitive approach to the possibility of 'emancipation' by an increased awareness of the centrality of language and subjectivity in formulations of difference.

Foucault's work has assumed a significant position in the developing 'canon' of the postmodern, though the significance of his writings in terms of their implications for educational theory and practice is problematic. Foucault himself resisted categorisation, and what to make of a set of texts which resist grounding and which have engendered widely differing responses is itself a postmodern challenge. He is a profound critic of the humanistic discourses of 'progress', 'emancipation' and betterment that govern modern power-knowledge formations. His writings provide an analysis of the emergence and work of *modern* institutions, and although Foucault did not directly focus on the school and other educational institutions, aspects of his work, both directly and indirectly do address educational issues. His concern to go beyond the role of langnage and textuality into an explicit consideration of the nature and role of power is perhaps one of the reasons why his work has a greater and more obvious influence on educational writing than other poststructuralists, Usher and Edwards (1994:82-83) address some of the issues in critical pedagogy which feminist appropriations of Foucault's work are problematised by.

## POWER IN CONTEXT

Foucault did not provide a ready made formula for analysing power in education; his main concern was to show the way in which modern forms of governance and social discipline is brought about in modern Western societies. Nevertheless, his work does give genuine insight into what we are doing with students in the name of education (Marshall, 1990:25).

Foucault (1977) argued that since the end of the eighteenth century social order has been maintained not by overt, external sovereign or legal power, but by far more subtle forms of modern disciplinary power. Modern forms of governance and social discipline are secured through education (Hoskin 1990:29). Education replaces coercion and subjugation. In this respect Hoskin (1990:29) argues that education is not simply what goes on in schools, but is an essential part of the regulative practices of modern institutions. Foucault's work questions the mirror which modernity holds up to itself, the benevolent image of *emancipatory* practices (including education) based on the development of the 'rational subject'. Instead, Foucault (1977:80)

sees a more 'suspicious' and 'invisible' form of social discipline, what he calls technologies and apparatuses of social regulation.

This reconceptualisation of modern institutions is largely achieved through rethinking first, the role of discourse through which practices and objects are constituted and defined and second, the relationship between power and knowledge. Premodern forms of coercion are replaced by 'discipline' which works through discursive power-knowledge formations to produce modern forms of governance and social control (Usher & Edwards, 1994:84). The notions of 'power-knowledge', 'discourse' and 'discipline' are a framework for the arguments which follow.

## POWER AND KNOWLEDGE

Modernity's liberal-humanist tradition and epistemologies accustom us to seeing knowledge as distinct from, indeed as counterposed to, power. In this view knowledge is a (disinterested ) search for truth which power gets in the way of and distorts (Usher & Edwards, 1994:84). Foucault was highly critical of this tradition and argued that such epistemologies help to ensure our continued domination, because they create the illusion that knowledge exists separately from power. Here, Foucault saw power as being reified, being constructed as 'a thing'. As 'a thing' power is monopolised by some or by certain institutions such as the state, who then exercise it coercively over others. When power is equated only with force and coercion, we have the view that power results in a distortion and corruption of knowledge. The implication is that 'truth' and 'knowledge' are only possible under conditions where power is not exercised. In contrast, Foucault argued that an inextricable link exists between power and knowledge, and in order to emphasise that they are two sides of the same process he coined the term 'power-knowledge':

> Power produces knowledge ... Power and knowledge directly imply one another ... There is no power relation without the correlative constitution of a field of knowledge, nor any knowledge that does not presuppose and constitute at the same time, power relations (1977:93).

Foucault inverts, following Nietzsche, the common-sense view of the relation between power and knowledge. We might normally regard knowledge as 'powerful' - that is, when it represents the world as it 'really is' and can lay claim to the status of 'truth' - and provides us with the power to do things that we could not do without. Science is usually considered as the means of discovering the 'truth' of the world and the knowledge produced is then neutrally imparted through the educational system in various educational practices and forms. Foucault argues, however, that knowledge is a power over others, the power to define others. Knowledge ceases to be a liberation and becomes a mode of surveillance, regulation, discipline (Sarup, 1993:67).

This discourse of knowledge, power and truth provides a range of very powerful messages for education. In education knowledge and truth are the basis for empowerment, emancipation and progress; truth is gained from knowledge which reflects and represents the 'real world'; and such knowledge is only possible in the absence of power. Once these operating assumptions are present, other ways of constructing knowledge and 'truth' are marginalised by this 'one true path to truth', 'this one true story'. Such powerful discourses Foucault referred to as 'regimes of truth'. All the major forms of disciplinary knowledge are seen as 'regimes of truth'. Foucault links the technologies of power with the emergence of the disciplines of knowledge, arguing that the disciplines take people as both their object and their subject.

Power and knowledge are correlative, they are always found together in 'regimes of truth'. Knowledge, therefore does not simply represent the truth of what is, but rather, constitutes what is taken to be true. For Foucault, it is what counts as true that is important. He counters the idea that truth is the outcome of methodologically controlled rational investigation, emphasising the 'production' of truth, a complex process operating at a multiplicity of levels (Usher & Edwards, 1994:87).

In describing the disciplines as 'regimes of truth' Foucault alerts us to the *politics* of knowledge (discourses). Modernity's discourses of power, truth and knowledge are thus brought into question, and are challenged in their self-representation as transhistorical foundations upon which to base understanding and 'progress', because they remove from debate the conditions of their own existence. It is in this sense that the separation of knowledge and power can be seen as a crucial part of the metanarratives (Lyotard, 1984), the cultural legacy of the Enlightenment that continues to provide the significations that shape modern educational rationality and practices.

Foucault also draws our attention to the status of the individual within modern Western society. The emergence of the modern emphasis on the individual presupposes the individual as the privileged point of reference in social formations. It is taken to be a sign of the gradual liberation from communal practices and beliefs, a liberation that allowed individuals to be 'themselves'. Foucault attempted to demonstrate the ignoble origins of the modern individual:

> ... the individual is no doubt the fictitious atom of an 'ideological' representation of society, but he (sic) is also a reality, fabricated by this specific technology of power that I have called 'discipline' (Foucault, 1977:194).

He presented the individual not as a sign of increasing rational autonomy, but as a sign that one form of social control had been transformed into another.

The rationality accompanying these disciplinary and individualising technologies is interested primarily in efficiency and productivity through a system of 'normalisation' (Foucault in Gordon, 1980:104-8). This normative rationality has, Foucault claims, become an integral part of such state apparatuses as medicine, law and education. But what does all this mean at the level of the school or the classroom?

Traditionally power has often been thought of in negative terms, as sovereign. Some of the early 'resistance' or 'liberatory' work in education conceived of power as a *possession* or *property*, something the teacher has and can give to pupils. To em-power suggests that power can be given, provided, controlled, held, conferred and taken away (Gore, 1992:57). Power as property is often, but not necessarily connected with a 'zero-sum' understanding of power, which suggests that there is only so much power, and that if teachers 'give' some to students, they must 'give up' or 'give away' some of their power. Foucault (1980) amongst others has reconceptualised power which reveals weaknesses of the property and zero-sum conceptions. Instead of conceiving of power as a possession or a commodity, a thing to be held or exchanged, Foucault has argued that power only exists in action, it is *relational;*

> Power must be analysed as something which circulates, or rather as something which only functions in the form of a chain. It is never located here or there, never in anybody's hands, never appropriated as a commodity or piece of wealth. Power is employed and exercised through a net-like organisation. And not only do individuals circulate between its threads; they are always in the position of simultaneously undergoing and exercising this power. They are not only its inert or consenting target. They are always also the elements of its articulation. In other words, individuals are the vehicles of power, not its points of application (1980:98).

## POWER-KNOWLEDGE FORMATIONS AND EDUCATION

This articulation of power tends to contrast sharply with a more traditional monarchical or sovereign conception of power subsumed within many emancipatory discourses in education. Power in the sovereign sense is overt and external and students are perceived as lacking power, thus requiring some intervention by the teacher. The intention is to 'empower' students to find and articulate their own voices, to take appropriate action, to see how they have been dominated by those with power. Gore (1992:56) contends that the term empowerment, more generally presupposes:

* an agent of empowerment, separate from a subject or a context,
* a notion of power as property,
* some kind of vision or desirable end state, and
* that the discourses of critical pedagogy construct empowerment in ways consistent with these underlying and inter-related presuppositions.

To em-power denotes to give or delegate power or authority to, to give ability to, to enable or permit. As such, it is a process which requires an agent, and someone or something, to empower. Even the notion of 'self-empowerment' presumes an agent - the self. Within education, even the 'something' (such as a context for self empowerment) requires the provision by an agent. The agent is generally the teacher. The subject of empowerment (who is to be empowered) is generally expressed in terms of the individual student and the social, as exemplified by Greenall Gough and Robottom (1993:301): socially critical environmental education seeks to empower students to participate in a democratic transformation of society. The student and social empowerment distinguishes between and connects the empowerment of individuals and social positions.

Theoretically Foucault's analysis of power raises questions about the possibility of empowering. It refutes the idea that one can give power to another. Thus to accept a view that one's work can give power (as property) to others is overly simplistic and is not representative of the operation of power within society. Foucault's conception of power as

'circulating', 'exercised through a net like-organisation', existing only in action, highlights that empowerment cannot mean the giving of power. It could, however, mean the exercise of power in an attempt to help others to exercise power. As such, Foucault's conception of power does not preclude purposeful and politically motivated action, but it does point out the possibility that the purposes may not be attained; that we might not be successful. In constructing power as exercised, the uncertainties, the unforeseeable, and the contradictions are brought to the fore. Yet how these feature within socially critical learning contexts is rarely considered. It is not at all clear that we can achieve anything. In attempts to empower, we have to acknowledge that our agency has very real limits, no matter what our aims or how we go about 'empowering', our efforts are likely to be partial and inconsistent.

The analysis also raises questions about procedures involving the exercise of power to help others to exercise power. Conceiving of power as exercised points immediately to the need for empowerment to be context-specific and related to practices. But even within the principles of critical pedagogy where negotiated learning takes place through student-centred activities (active/experiential learning) based on a constructionist view of knowledge, the agency of a teacher is still present. As a 'project organiser and resource person' or whatever label one might wish to use ['facilitator' - Ed.], the teacher organises critical and collaborative activities in negotiation with students and community. But does the agency of the teacher contaminate the specific situation? All too often, the issue of agency is forgotten. Problems can arise, for example, when students are involved in the collection and recording of data, in the discussion and analysis of behaviour which is assumed to be 'normal', that is, not a production affected by the learning process. But do students, teachers and others move away from their 'vernacular' or normal behaviour during critical learning encounters? Do such critical learning encounters produce a distortion of unself-conscious action? Does 'the actual' situation become a production, a simulation? Understanding power as exercised, as relational, rather than as possessed, requires attention to these concerns, to the microdynamics of the operation of power as it is exercised in particular sites; instead of the tendency within some approaches to critical pedagogy to decontextualise empowerment.

Further, if empowerment is constructed as the exercise of power in an attempt to help others to exercise power (rather than the giving of power), and having established the distinction between those who aim to exercise power (teachers) to assist 'others' to exercise power (students), this immediately sets up a distinction between 'us' and 'them'. As a given in any relation which aims at empowerment, the agent becomes problematic when the us/them relationship is conceived as requiring a focus only on 'them' (Gore, 1992:61). Are we to assume that the agent is already empowered and so apart from those who are to be empowered? There is a danger here, both in the work of the teacher with students, and in the work of teacher educators attempting to 'facilitate' the 'empowerment' of teachers through research in the classroom. In the focus on Others there is the danger of forgetting to critically examine one's own work (or one's group's work) and one's own (group's) implication in the conditions one seeks to change (improve). Consciousness of our own (as writers, scholars, facilitators, educators) complicity in the very structures of power that we are attempting to deconstruct often tends to slip away unnoticed. In the well intentioned focus on empowering others, there is a danger of overlooking the normalising tendencies of all discourses.

## AN AGNOSTIC STANCE TO KNOWLEDGE

Building on the above and a broader analysis of *subject and subjectivity, language* and the importance of *content*, I will now outline the significance of an empirical epistemology and an agnostic (others have used relativism, scepticism) stance to knowledge within a socially critical orientation to environmental education. This is done by highlighting the often implicit epistemological stances of the various knowledge formations which environmental education draws on. For reasons of space, I shall merely describe the stances briefly, inevitably distorting them somewhat as I do so.

As Kurzman (1992:268) argues, 'to know' is to commit oneself to a belief and to commit oneself to the separate belief that the first belief describes an aspect of reality. Thus there are two aspects to knowledge: what Kurzman calls the commitment-factor and the truth-factor. That said, there seems to be three general attitudes to knowledge;

* that the same knowledge is justified for everyone (monism),
* that each 'community' is justified in having its own knowledge (pluralism),
* and that knowledge cannot be justified (agnosticism, also called relativism or scepticism).

Monism is distinguishable by the easy assumption that knowledge is justified. There are various monist theories of knowledge, but they all have a commitment to the justifiability of knowledge's truth factor, that is they justify knowledge by its relation to truth. Monist theories are all foundational in one sense (see Firth, 1995 for a consideration of the significance of foundationalism), in that they all assert that knowledge can be justified, based on sufficient conditions for knowledge. A number of different strategies are deployed to specify conditions (presuppositions) that suffice to make knowledge's truth-content probable, not certain, as the anti-monist caricature would normally have it. The strategies include:

* self-evident items of knowledge - some knowledge is self-justifying: based on sense experiences that justify themselves and serve as the foundation on which all other knowledge may be based; but in claiming such self-evidency ie that certain propositions are 'epistemologically in the clear', this denies that questions may be raised about such propositions; it seems to avoid the issue of how knowledge is justified;
* internal coherence - knowledge that fits with the system is true: where the truth of a judgement is justified by its harmonising with all the other judgements we make about reality; however, it is not at all clear that our beliefs form a coherent conceptual system in the first place; furthermore, if the system justifies the individual propositions, what justifies the system? The existence of a conceptual scheme does not ensure that it approximates the truth;
* practical success - lasting knowledge is true: here the basic idea is that knowledge is logically necessary if any occurrence or set of occurrences is ever to afford evidence in favour of any other occurrence. Inevitably efficiency (whether in terms of basic survival or the attainment of specific goals) has and will continue to weed out knowledge that does not conform to reality. But again the practical success argument leaves much of what we claim to know unjustified.

The overall argument is that we need to establish sufficient conditions for knowledge and having done so, certain theories simply accord better with the 'truth', and are thus good for everybody. Unfortunately, this argument of sufficient conditions for knowledge seems to avoid or distance the whole issue of the fact that the justifiability of knowledge's truth-factor is inherently a human action. Pluralism, on the other hand, generally stresses the justifiability of the commitment factor rather than the truth factor. Agnosticism argues that neither the truth-factor nor the commitment-factor is justifiable.

Pluralism and agnosticism both critique monism. Pluralism focuses on the commitment-factor of knowledge and argues that different social and cultural groups claim to know the world differently, and that no one way of knowing the world is more justified than any other. Pluralists usually justify the different systems of knowledge as necessary in order to achieve certain goals. Knowledge is thus justified by its necessity. Agnosticism critiques both monism and pluralism. Anti-monism is shared with pluralism, arguing that different people claim to know the world differently, and no one way of knowing the world is more justified than any other way. But agnosticists do not accept the pluralist solution that knowledge is justified by its compulsory acceptance within each social group, that achievement of the desired goal justifies the commitment- factor of knowledge. They emphasise the multiplicity of systems of knowledge within each socio-cultural group and the internal contradictions of each system of knowledge.

The commitment-factor of knowledge is only actually necessary if there are no noncommittal ways to achieve the desired end. The agnostic position being argued for here is that people believe things, agnostics believe things, and there is nothing wrong with this, but there is no need to claim that these beliefs are justified. The reason for arguing for such a position is that it brings to the fore the question, if knowledge cannot be justified, then how does it come to be accepted as such? It allows statements of belief or of persuasion to appear as themselves in various forms, such as 'I believe', or 'I am convinced', but not as a statement of justified knowledge. In this way, we can focus on other concerns than the justification of knowledge, namely, the ways in which particular knowledge claims are accepted.

Fuller (1993:xvi) first drew my attention to the significance of an agnostic stance in his discussion of rhetorically effective theorising:

> The power of the great philosophical theories of the twentieth century - Marxism, pragmatism, logical positivism, existentialism and structuralism - lay not in the truth of their specific doctrines but in the ability of their procedural languages ... to get people from quite

different walks of life to engage in projects of mutual interest.

Kurzman (1992:78) suggests there are four factors in the acceptance of any particular item of knowledge:

* its relation to the 'real world',
* its novelty,
* its social and theoretical context,
* its phrasing or rhetoric.

The first, the relation to the 'real world', is a reference to the evidence that can be accumulated in support of a particular knowledge claim. it is a common occurrence that most knowledge claims can find some evidence in its favour, so this is not always the crucial factor, though it is also usually the case that theories with more evidence in their favour tend to have an advantage over theories with less. The second factor, novelty, refers to the persuasive power that something new often has, so to outline a new approach is sometimes an effective strategy. The 'global knowledge explosion' in more recent years coupled with new information technology makes the novelty factor even more significant, though the task of actually keeping up to date with developments is made more difficult. The social and theoretical contexts, which are closely intertwined, refer to the background against which the knowledge claim is presented. For example, does it conform to the general thinking of the day, or is it a direct challenge to extant knowledge? Who is it being articulated by? What advantage or disadvantage could acceptance result in? While it is obvious that context is important, it is difficult to spell out which particular contexts are more conducive to the acceptance of knowledge-claims. The final factor, rhetoric, has already been emphasised. It raises the question, what constitutes effective rhetoric? An empirical epistemology should try to take these points of view and to figure out their relative power and interrelations.

## REGIMES OF TRUTH

I have sketched out one way in which an agnostic stance to knowledge could be shaped. The main concern for me, given that there is no justification for knowledge, is the question of how some items or systems of knowledge, and not others, come to be accepted as such by people and to what effect. (Kurzman, 1992:278). The value in such a position as I see it, is the move away from epistemic status (the nature of authority) that is associated with either justification as an esoteric set of presuppositions or by necessity; which also calls into question the value of being a mere possessor or consumer of knowledge. Instead, it allows me to reconfigure a conception of knowledge that is transactionary and concerned with what determines what people believe. This throws up into sharper relief the subject, language, context and power. They become more transparent. Such a reconfiguration could assist in keeping the channels of communication open between sectors of society that to me seem increasingly susceptible to incommensurability. In turn, this has implications for how one thinks about the ends of education. It may even alter the character of the knowledge produced, including what we take something to be when we call it 'knowledge'.

Rather than seeking to legitimate or celebrate particular discourses, an agnostic stance would want to look for their dangers, their 'normalising' tendencies, for how they might serve as instruments of domination despite the intentions of their creators (Sawacki, 1988). The stance draws on Foucault's (1980) notion of 'regime of truth'. In pointing to the nexus of power and knowledge, regime of truth highlights the potential dangers and normalising tendencies of all discourses, including those which aim to liberate. Foucault (1980:131,133) explains regime of truth as: truth is linked to in circular relation with systems of power which produce and sustain it, and to effects of power which it induces and which extend it. Further,

> Each society has its regime of truth, its general politics of truth: that is, the types of discourse which it accepts and makes function as true; the mechanisms and instances which enable one to distinguish true and false statements, the means by which each is sanctioned; the techniques and procedures accorded value in the acquisition of truth; the status of those who are charged with saying what counts as true.

The use of Foucault's notion of regime of truth demands greater attention to the contexts in which empowerment is advocated and/or attempted (practised).

## THE ROLE OF EDUCATION IN SOCIAL TRANSFORMATION

While I will continue to use socially critical forms of environmental education in my work as a teacher educator and to support such approaches within schools, I do heed Foucault's critique. I have identified some specific practices through which

critical pedagogy can have effects of regulation, of domination, despite the 'emancipatory' intentions of those who are implicated in its use.

By the use of the term 'critical' or socially critical environmental education, I do not imply any teleological view of history (Marxist), whereby the critique of existing social relations is a stimulus to the process by which the ideal immanent in history will become a reality, through particular groups within society (intellectuals and the working class). In this case, in my view, the 'emancipatory' space within which individuals are to be mobilised into collective action is seen somehow to be located outside of discourse and history and exterior to power inscriptions. I do not subscribe to such liberatory definitions of critical pedagogy.

Rather, I place an emphasis on discourses of critique and possibility: my concern as an educator is to illuminate the political circumstances obtaining when knowledge is produced and to develop inquiry approaches that counter the 'naturalisation' tendency of so much learning. This foregrounds for young people the relations among knowledge, authority and power in the generation of knowledge. As Foucault (1983) stressed, we are working within a time which is noteworthy for its disturbing of the formerly secure foundations of our knowledge and understanding. I view critical approaches to education in such a frame.

Further, what makes a learning process educationally worthwhile is that it not only fosters certain human powers and abilities, but does so in relation to the things that matter in life. This is not a neutral, value free standpoint (if that is not a contradiction of terms). There can be no such position. I have argued that to adopt a socially critical position, to politicise, means not to bring politics in where there were none, but to make overt how power permeates the construction and legitimation of knowledges. What a critical approach foregrounds is the inescapability of how our invested positionality shapes our rhetoric, theory and practice; and this must include the discourses of those of us who embrace the term 'critical'.

How human beings live in relation to their environment is so important that the questions and issues it poses can only be properly addressed when people bring certain critical qualities of thought and action to bear on them. The best contexts for developing those qualities through education are the ones in which they will need to be employed in adult life (Elliott, 1993:18).

The development of such a curriculum response requires a dynamic and socially critical learning process rather than one based on the transmission of immanent knowledge. Pedagogy can 'naturalise' a state of affairs, silence students' voices and prevent access to the discourse relaying power. It is this appearance of 'the natural', its constructedness and its relationship to the classroom and pedagogy, that I now turn.

Pedagogy in this more critical sense draws attention to questions concerning who is in control over the conditions for the production of knowledge (Giroux, 1992). The processes by which knowledge is produced are universally embedded in our need to understand ourselves, our places in the world and our relations with others. Through our observations we construct representations of the self and the world. Education locates these processes within a culturally defined institutionalised context.

Through critical pedagogy our attention is occupied with the relations of authority which secure professional, pedagogical and political status. In this way, at the centre of the educational process is the context of knowledge production. If we detach environmental education from the political circumstances obtaining when knowledge is produced, we are not involved in an educational process. Learning is reduced to the passive experience of acquiring inert, immanent, but politically loaded knowledge, later to be applied to real life. The values which have produced this knowledge are hidden from view by a scientific rationality. They are 'naturalised', but as Connor (1993:34) notes, they have not disappeared, they have been driven into the critical unconscious - continuing to exercise power and force, without being available for scrutiny. Young people, if they are to help build alternative and better futures must have the opportunity to overcome this 'naturalisation' tendency: distortions of thought, processes and relationships.

Through critical pedagogy learning becomes a dynamic experience of critiquing and creating knowledge, and is inevitably conditioned by the values which structure our everyday experience of living and the practical issues and concerns which emerge from such experience. If schools wish to find the answer to the motivations of young people towards social participation, to realise the potential

of their agency, then they need to understand how the experiences of the young and their social location (family, school, workplace, community) are represented to them by the cultures in which they live and those which they construct themselves.

This foregrounds the intertwining of subject, language, context and power. In making these more transparent through the educational process, young people realise that truth does not precede the notion of representation, and through their own subjectivity can begin to realise how they relate to others. This allows us to reconfigure a conception of knowledge which is transactionary and is concerned with what determines what people believe. The need for formative narratives that provide the basis for historically and relationally placing individuals and groups inside some common project may then be within reach.

I do not claim that education can be 'emancipatory' or bring about social change. I do assume an interactive relationship between thinking ['theory'] and actual social life, but not in the traditional sense of critical theory which pronounces theory [appropriate] as emancipatory (usually via 'transformatory intellectuals') in so far as it enables actors to redefine their situations and see new possibilities for choice. For me the interactive relationship is problematic.

Here, I am in accord with Janse van Rensburg (1994) and conceptualise environmental education as developing the capacity for change, rather than as intervention to bring about change. (She has identified this fourth emerging orientation within a recent empirical study of approaches to environmental education and research within Southern Africa.) Environmental education is seen as a collaborative and reflexive search for solutions, where social processes of change become the focus for research and education. It emphasises the importance of a more contextualised consideration of 'empowerment' in terms of subjectivity, language, specific contexts and a reconceptualisation of power.

The significance of this is not a romantic hope for 'liberation', but a conceptualisation of a cultural strategy to help young people construct possibilities for change in their own lives, by using curriculum and pedagogy to challenge received ways of thinking and institutionalised assumptions. Such a strategy highlights for young people the social constructedness of what, through its institutionalisation, appears to be natural.

## TO CLOSE

Classrooms are neither ripe for revolution nor for mindless complicity (Mclaren, 1994:321). The emancipatory potential of critical pedagogy is not something to be regarded as a dogma, as if truth could be guaranteed. Critical pedagogy is a notion, not a thing. As a notion, it does no more than give form to a particular kind of democratic aspiration: to engage in changing the world as well as interpreting it. It offers an embryonic, local form of connecting educational activities with social and political action in complex practical circumstances.

Ultimately critical pedagogy is a structuring principle of educational and social life, one which can help us to address tough times ahead by requiring us to grapple simultaneously with the contradictions, constraints and limitations of our ideas, theories, and practices, of our words and our world.

Environmental education is about social change. If education is to seriously address the socio-ecological 'crisis' we do need to rethink the nature of 'progress' and other modernist ideas. We do need to change society, make it more sustainable. But it will not be easy. The identification of the centrality of subjectivity, identity politics and formative narratives in the work of schooling, is to emphasise some crucial unsettled issues confronting educators in search of emancipatory pedagogies today. In advocating the continuing relevance of critical pedagogy, we need to seek ways of exercising power toward the fulfilment of our espoused aims which include self-criticism, scepticism, humility and the notion of possibility.

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NOTES:

[1] An earlier version of this paper was presented at the 13th Annual Conference of the Environmental Education Association of Southern Africa, Durban, South Africa, 18-21 July 1995.

[2] In my work I have attempted to synthesise an explicitly social constructionist perspective with political economy in order to examine the rise of a wide range of environmental-development issues and problems within the context of the social conditions of the late twentieth century. In opting for such an approach, I have conceptualised the environment as a site for a repertoire of definitional and contestatory activities (theoretical and operational) many of which are increasingly taking place in a global context. This standpoint does not discredit the notion of a socio-ecological 'crisis' or the environmental issues and the environmental claims that are made around these. Rather, it is a contextual position, the emphasis being to understand how they are created, legitimised and contested.

[3] In using the term democracy here, I am not denoting an allegiance to a liberal conception, rather the emphasis is on redefinition or reconfiguration of democracy as a site for struggle and the need to reclaim it in terms that take seriously the issue of difference.

Editors' note: This paper has been substantially shortened from the extensive review of socially critical environmental education and post-modern critique submitted by the author following his presentation on agnostic conceptions of knowledge at the EEASA '95 conference. The full paper is available upon request.