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Environmental Literacy and Educational Ideal

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ABSTRACT: Environmental literacy is not encouraged by discipline-based education. Discipline-based education is damaging not only because it breaks the link between experience and theory but also because it encourages learners to believe that complex practical problems can be solved using the resources of just one or two specialist disciplines or frameworks of thought. It is argued that discipline-based education has been extremely successful, and its very success is a factor which explains some of our poor thinking about environmental problems. These problems are highly complex, and it is important for learners to discover the limitations of particular frameworks of thought and disciplinary approaches. This is particularly important in the case of economics. An education which emphasises the limitations of specialist approaches to complex problems can also be used to help overcome the depersonalising effect of bureaucracies.

KEYWORDS: Environmental literacy, frameworks, education, ecology, Dewey, Freire, economics, liberal education, Hirst, bureaucracy.

EDUCATION AS A NORMATIVE ENTERPRISE

All living things are what they are in part as a result of being where they are. Self-creation cannot take place without inputs from the environment. This is true of the maintenance and development of a unicellular organism or the growth and sophisticated reconstruction of experience that is typical of the human subject. Among the aspects of location that are particularly important to humans are (i) social and political factors, and (ii) biological or ecological ones. The attainment of individuality would be impossible without the existence of certain social and more broadly environmental circumstances.

These conditions on the attainment of individuality provide possibilities of both constraint and liberation. Our location within social and natural systems constrains our development, yet at the very same time enables it. Just as Mozart composed within the limits of sonata form and classical harmony and in the development of his music showed us something about the nature of that form, so

our own deliberate (and accidental) activities of personal creation reveal, at least to the knowing eye, something about our surroundings. Yet sonata-form and tonality were not merely constraints on Mozart. They gave the structure within which his musical genius was able to flower. Likewise our social and natural location provides us with the means to develop in many rich and complex ways. What are limits to growth and development seen one way are – seen in another – opportunities for liberation and self-expression.¹

Some radical critics would suggest that modern industrial cultures are ones in which, by and large, people have lost their sense of tonality and form. Feminist theologians, ‘deep’ ecologists and other critics of the status quo seek to challenge the values built into industrial society by appeal to the wisdom of primary people, the rediscovery and reintegration of feeling, sexuality and emotion, and the argument that all things are connected. The ecstatic vision of nature put forward by John Muir in his writings about California early in the present century has been transformed and reworked by writers like Joanna Macy in her *World as Lover World as Self* (Muir 1911 and Macy 1991). Studies in environmental science and – more recently – human ecology have emphasised holism and interconnectedness among the various scientific disciplines that can be brought to bear on the study of humans and their environment. In the popular literature on philosophy of science, at least, there has also been a critique of reductionism, of Baconian theories about the mastery of nature and of the narrow focus that individual disciplines have brought to the study of humans and their environment. Finally, policy theorists have criticised the dependency of contemporary governments and planners on economic rationality and particular economic techniques such as cost benefit analysis (see Brennan 1992 and further references there).

If some of the more radical claims of popular writers are to be believed, these upheavals and debates in contemporary society may herald the beginnings of a change from one cultural epoch to another, at least in the industrial countries themselves. And education becomes, in such a situation, itself a focus of concern. The role of the educator is sometimes described in purely backward-looking ways. For example, it may be said to be that of passing on to the next generation the cultural heritage of former ones. But this is too narrow an account of what goes on in schools and universities as far as their educational activities are concerned. For the educational process is itself a dynamic one, taking place at a shifting point between the past and the future, the old and the new. In many parts of the world, it faces a challenge where cultures are changing at a very great rate. Moreover, education is a normative activity, focusing on *what ought to be* as much as on *what is the case*. The school, according to Dewey, should select what is best in contemporary society and offer a microcosm of that to the learner. In such a process of selection, some aspects of society are deemed good, and other things bad, some things worthy of attention and other things best passed over in silence. Moreover, when society is in transition, educators have to make

provision for a future whose structure can only be dimly guessed. As result, questions about education are not simply factual but involve moral ideas, and considerations of a fundamental kind about values.²

Dewey's normative concern for making the school a model of all that is best and will be best in the society can be applied to two aspects of the curriculum. On the one side is the overt syllabus, the one that is taught, published in documents produced by the school, the education ministry and so on. On the other is the hidden syllabus, that collection of practices, behaviours, styles of teaching and tacit values which are seldom discussed openly either in the school or even during the process of training teachers. To the extent that schools contribute to the socialisation of their students what they are doing has to be assessed with respect to both forms of the syllabus. Both hidden and overt curricula also prepare the student for future participation in society, the hidden one perhaps operating more deeply and over longer time scales than the overt one.

One of the big questions facing those concerned with environmental education for young people is how to prepare pupils and students for future activities in society. Are there procedures for environmental education which could make future citizens ethically aware and eco-literate? Without being too concerned for philosophical precision, suppose we try to define *environmental literacy*, in the broadest sense, as follows. The environmentally literate citizen, let us imagine, will have a blend of ecological sensitivity, moral maturity and informed awareness of natural processes that would make her or him unlikely to contribute to further degradation of natural processes at either individual or corporate levels. This is an ideal, for it would never be expected that all citizens could really attain such competence. But as a normative enterprise, education must work with ideals as part of considering what would be best for the society in which it takes place. What can be said about this goal? What steps, for example, can be taken to help us realise it? And what role can education for environmental literacy play along with the other social structures affecting the learner in her or his development? These seem to be the most urgent questions facing us, and without progress on these questions, we will not know how to begin approaching the task of education. In starting to answer them, it is important to bear in mind the existence of both the overt and the hidden elements in the curriculum.

DISCIPLINES AND FRAMEWORKS

In other work I have emphasised the power of various frameworks of ideas on our thinking (Brennan 1991). These frameworks can be religious, ethical, economic, physical, biological and so on. In some cases, what I had in mind by writing about 'frameworks' could be thought of as exemplified by the academic disciplines or by what the British educational philosophers Hirst and Peters

called 'forms of knowledge'. These disciplines and forms of knowledge have had two significant effects on both overt and hidden curricula in the industrialised world. The first is that they have structured, by and large, the provision of education in the universities. Indeed, since the development of the academic disciplines is associated with the growth of academic power groups, and eminence in a discipline is associated with status within the university, there has been a tendency to neglect inter- or trans-disciplinary studies.

The neglect of the interdisciplinary areas of study has had a second, very noticeable effect outside the universities. This has been a trend in favour of discipline-based secondary education at odds with the philosophy of primary education in countries like Britain and the United States. For the most part the disciplinary structure of the universities, and their expectations that those entering tertiary education should be qualified in one or more of the university disciplines has led to a structuring of secondary education into the academic, on the one hand, and the vocational on the other. Those proceeding in academic streams would not be exposed to teamwork, felt difficulties, independent research or given much opportunity to discover the ways in which theory could be connected to their own experience. Only in very recent years has some notional concession been made to the ideas which have loomed so large in primary educational theory.

Since 1945 primary schools in the United Kingdom have increasingly worked to a Dewey model with the following features:

- i emphasis on geography, or environmental studies;
- ii devoting significant time to project work and making clear the importance of teamwork in problem-solving;
- iii using a variety of methods of teaching, including those that elicit responses from students which encourage independent thinking;
- iv linking work in the classroom to the local physical and social environment, by getting children involved, for example, in local schemes for tree planting, river bank repair or working with community groups;
- v integrating literacy, numeracy and other skills and competencies into broader sets of activities; and
- vi connecting by these various means the academic, or theoretical, with the practical.

This last linkage between experience and theory is a particularly important element in Dewey's educational thinking.

It is not Dewey alone whose ideas were responsible for the adoption of such a syllabus and the related methods of teaching. Rousseau had emphasised the

importance of starting from the child's natural condition, whilst Dewey himself attacked the over-emphasis on purely child-centred education among some earlier theorists. Dewey's account of education tries to break down the unproductive dualisms he discerned in thinking about education. Such dualisms included that of the child versus the curriculum, as well as the school versus the society, the teacher versus the pupil, and so on. In order to transcend the false opposition between the child and curriculum, Dewey advocated a policy of starting from where the learner is, but going on from there to guide the child's development by a number of both overt and hidden means (see the two essays in Dewey 1956).

Herbert Read's ideas of education through Art, or Paulo Freire's conception of education as liberation have also played a part in the development of educational ideas in Britain. More recently, in both the UK and the former Soviet Union, intensive language-learning has been much influenced by 'holistic' modes of learning which have further developed the themes mentioned above. Holistic learning through use of dance, drama, music and games has been introduced in Britain by a group called 'Inner Track' whose approach further develops the ideas that education has to be related to the learner's own experience. Student empowerment involves 'ownership' of what is to be learned and this has to be rooted in the learner's own feelings and knowledge of life.³ Inner track uses same philosophy as intensive learning programmes in Russian schools.⁴

These developments have not, however, gained much favour in the mainstream of secondary education where discipline-based learning is largely the rule.

HOW DISCIPLINARY THINKING DOES DAMAGE

Pupils in many countries encounter a culture-shock in moving from a primary environment in which theory and experience were deliberately linked to a secondary one in which academic studies become increasingly remote from their experience. Their situation is parodied by Freire when he described the 'banking' conception of education in which teachers made 'deposits' of knowledge in their students, these being due for repayment at examination time (see Chapter 2 of Freire 1972). Such a system, Freire argues, creates a hierarchical relationship between student and teacher in which the one is clearly below the other – the teacher up, the student down. Instead of education being a joint venture in which both student and teacher contribute to a mutually-involving process, learning from each other, it becomes one in which the learner no longer 'owns' what is learnt and can come to feel increasingly alienated from the subject-matter being taught.

Let us focus on the last point. In contrast to Freire, I would argue that the initiation of learners into a small number of forms of knowledge by the discipline-driven school has been highly successful. Instead of learners becoming alienated from the subject-matter being presented, many of them have, on the contrary, become particularly adept at seeing the world through one or another disciplinary lens. This has a damaging effect on them – an effect anticipated, I believe, by those writers like Hirst and Peters who set out to defend the values of what they called ‘liberal education’ (see, for example, the essays in Hirst 1974). To clarify this issue, it is helpful to approach it in terms of the notion of a framework of ideas.

Many disciplines embody just one or two ‘frameworks of ideas’. Such a framework, I propose, is defined by three features:

- i It provides a vocabulary and set of concepts for describing a certain subject-matter.
- ii It provides material, perhaps in the form of groups of hypotheses and speculations, for constructing theories about the subject-matter in question.
- iii The perspective it provides on the subject matter in question is able to exclude alternative perspectives, at least for a time.

An example may make clear what these frameworks are like, and also illustrate some of the dangers of framework-thinking. Each major religion, for example, provides a point of view on its subject-matter which, for a time at least, can exclude other points of view. A Christian perspective, for example, can exclude a competing religious one, and it can also exclude various non-religious ones. Although Christianity and biology have lately become less hostile to each other, there seemed in the nineteenth century to be a clear choice between regarding human beings in terms of a religious, creationist perspective and regarding them in a biological, evolutionist one.⁵

Economics provides an example of a quite different framework. Although generated by what is nowadays an academic discipline, the framework of economics has its own vocabulary and concepts in terms of which to describe human beings and their relations; it provides the material for many different theories, including theories of the market, money and of economic behaviour. Moreover, once in the grip of economic thinking, whether Marxist or monetarist, we can start to think of humans solely in terms of that framework – as economic animals, expressing their desires and preferences through signals to each other mediated by the market or other economic mechanisms.

Thinking in frameworks is dangerous and limiting. To state this is not to deny that it is also helpful. Science and practical knowledge advance because we are able to simplify the complexities of situations and reduce them to outlines we can understand. But many advances in knowledge have been bought at a severe cost.

For once we have accepted a particular framework as relevant to a problem, it can be intensely difficult to shake ourselves out from its grasp. This is made clear by the strong attachment that politicians in many countries have to an economic framework which depicts human behaviour and agency in extremely thin terms. The power of the framework over their thinking seems to blind its adherents to the merely partial insight it provides into our political and social situation.

What academic secondary and tertiary education does through both its overt and its covert syllabus is make framework thinking too easy. It has lured generations of learners into thinking that because the advance of knowledge requires more specialisation, and that because more specialisation means dependence on fewer and fewer frameworks of ideas, then the most advanced knowledge requires us to use no more than one or two frameworks. This kind of specialisation has led to the success of particular frameworks in different subject areas. But it has also led to quite ridiculous academic rivalries and jealousies. Plant physiologists, for example, sometimes have hardly any good words to say about plant ecologists. Yet it is the ecologists who tackle the really tough problems. For example, problems of plant ecology cannot be solved using only molecular biology or chemistry on their own. Yet the very complexity of the problems raised by the ecologists puts them under suspicion from other scientists raised in a strong disciplinary tradition.

If these claims are plausible, then they may explain why economic rationalism has been so successful in contemporary policy and political debates. If we can persuade ourselves that all values are ultimately no more than consumer preferences, and if everything can have its worth expressed precisely in dollars, then appeal to just one framework – that of economics and the associated methods of cost-benefit analysis – will resolve every pressing policy issue. Now everyone knows in their heart – even economists – that it is lunacy to try to put a price on everything. Someone who tries to do so knows the value of nothing. There are some things that it is worse than lunacy to put a price on: murder, slavery, rape, kindness, beauty, friendship, love, intimacy, war, oppression, forgiveness, duty – these are just a few of the things whose impact on human lives cannot possibly be measured in dollar terms. It is not just lunacy to associate dollar costs and benefits with these things – it is a form of sickness, a moral sickness that spreads in a society which has forgotten that there are some questions that should not be put, and some answers which should never be given.⁶ Once we accept a framework that puts a price on everything we have gone too far. We have entered a trading game and once in that game it is too late to reserve certain options as being beyond price. If there are things that it is wrong to price, then that has to be clear before we start trading in the first place.

Freire and I do not disagree that the process of initiating learners into disciplines in which they can ultimately specialise is an alienating one. But, given my account, it is alienating because, if once the limits of frameworks are

forgotten, then one or two of them can come to dominate others. The thinker then fails to appreciate the subtlety and complexity of experience and starts to mistake the shadowy things of the framework for real objects, rather like the prisoners described in Plato's metaphor of the cave. If economic thinking and the pursuit of economic goods are shallow things, then here is one way of understanding what this means. They are shallow because they are associated with ways of thinking about a multi-dimensional subject-matter in just one dimension. It is a truth – of course – that humans are economic animals, but it is a partial truth, not some fundamental discovery about what the essence of our humanity 'really' is.

LIMITATIONS OF FRAMEWORKS

Here, then, is a challenge for education for environmental literacy. How can we overcome shallowness in education, and alert the learner to the fact that we are complex beings who live in complex relations with each other and with our physical surroundings? One way that I have suggested in previous work is by focusing some activity in schools on the limitations of framework thinking (as argued in Brennan 1991). This would mean, for example, carrying through Dewey's ideas in both primary and secondary education, ensuring that geography or human ecology are at the centre of things. Human ecology seems particularly useful as an organising approach in secondary education, since its subject-matter is the interaction of human populations and their physical environment. Here is another idea along similar lines.⁷ We know that it is possible to bring children up to be bilingual without skills in either language being diminished. We also want there to be experts. So for those people who embark on academic education, perhaps it should be a requirement that everyone who specialises does so in at least two disciplines. Being 'bilingual' in this new way might help correct the tendency to believe that any single discipline has all the answers, or poses all the questions.

These suggestions, I believe, are in keeping with an understanding of what theorists of liberal education, such as Hirst and Peters, may have had in mind even though it was never explicitly stated. They emphasised the importance of exposure to a number of forms of knowledge. For each point of view on a complex subject-matter will very likely have its merits and its own validity. History, sociology, psychology and biology all have fascinating theories to display and accounts to narrate of human beings and their relationships. Humans are in history, but also in society; they have minds and they are also biological beings. They are also economic, ethical and political animals. Given the complexity of the subjects we study, there is a clear case for the liberal ideal in academic education which can be put as follows: if we do not expose learners to

at least some of the many perspectives available on complex topics, then they will develop only simplistic attitudes to the wealth around them. Instead of helping them realise the richness of experience, education would equip them for only a superficial understanding of life.

Yet the prestige attached to discipline-based thinking threatens to undermine the benefits of liberal education. How can the dangers of discipline thinking be reduced? Think again about disciplines like economics and biology. It is certainly true that human beings are, among other things, economic animals. They are, also, among other things, the products of evolutionary processes. But they are religious, ethical, political, physical, aesthetic, beings as well. We do no justice to the many-faceted richness of human life by trying to reduce everything to economic transactions or genetically programmed behaviours. The core claims of economic rationalism and genetic determinism are, it seems to me, obviously false and I make no attempt to argue this point here. Yet it is striking that whole treatises have been written, and whole schools of thought founded, on just such false claims.

There is one general observation that can help the educator here. It is a general feature of frameworks that the central concepts are limited in their application. There are, to put it crudely, questions that just cannot be put in the vocabulary of a particular framework. A sociologist can ask sociological questions (even about sociologists). But the framework of physics makes no provision for entertaining questions about sociology any more than sociology can pose questions about elementary particles. Nor does philosophy permit the framing of other than philosophical questions (although part of doing philosophy involves scrutinising other frameworks). It follows, I suggest, that a major aim of education for environmental awareness must not only involve some acquaintance with the multiplicity of frameworks available to us, but also encourage reflection on the *limitations* associated with each.

It may be that failure to reflect on the limitations of frameworks is a factor in the environmental catastrophes we face: maybe they are, at least in part, a result of considering our actions under only one or two aspects. But reflection on such limitations is something that can be readily added to the characterisation of a liberal education. More generally, the conception of what is involved in education, especially education for environmental literacy, can readily incorporate the point that framework thinking can be a source of problems (as well as a means to solutions) and that recognition of the roles of frameworks of ideas, and their limitations, has a significant part to play in the development of the educated person. How best to introduce the awareness of limitations at different levels of the educational process is a topic best left to others who know more about education than I do. The point being argued here is that such a modification would be in the best tradition of liberal education.

BUREAUCRATIC THINKING

The appeal to single frameworks is associated with a peculiarly bureaucratic conception of understanding and justification which is widely prevalent. As Erich Fromm pointed out in *The Anatomy of Human Destructiveness*, in the bureaucratic system every person controls the one below and is controlled by the one above (Fromm 1974). Both sadistic and masochistic impulses can be fulfilled in such a system. Fromm associates both kinds of impulse with a joyless lack of genuine freedom. If control, and the associated opportunities for sadism and masochism are associated with bureaucracy, so too is depersonalisation. It is a feature of bureaucracies that decisions taken at one tier of an organisation are typically implemented somewhere else. The driver of the bulldozer, and the manager of the logging operation, are simply carrying out instructions and policies that come from elsewhere. Those who send out the instructions may never see the effect their instructions have. Thus no-one carries personal responsibility for what the organisation does.

The analysis given by Fromm, and critiques by other thinkers, suggests that bureaucracies require very careful attention (see also MacIntyre 1983). Given that many people will pass from school to university and then into positions within such bureaucratic structures, we would be well advised to consider forms of education which would alert them to the dangers of depersonalisation, lack of responsibility and the risk of the institutionalisation of degraded forms of life such as sadism and masochism. Yet the best minds of the last three hundred years have suggested no such thing. Instead, they have accepted the bureaucratisation of the university and have applied to philosophy the depersonalised methods of bureaucratic thinking.

Thus in contemporary ethical theory, for example, there are many writers who are attracted to the project of giving an impersonal account of morality, as if the business of living well could be abstracted from actual contexts in which lives are led. Essentially bureaucratic reasoning has led to ‘monistic’ moral theories, in which the essence of morality is expressed in a single formula – like Mill’s greatest happiness principle – or by appeal to abstract principles of justice, such as John Rawls puts forward. For these thinkers, morality is not linked to the social instincts and care for kin as suggested by Darwin. Indeed, the truly moral person, they suggest, should not be overly swayed by virtue of their care for their loved ones or connection with a particular place. In Rawls’s case, the fundamental principle of justice in society is meant to be reached by considering ourselves purely as self-interested intelligences debating the just society from behind a veil of ignorance.⁸ That veil hides from view our shapes, sizes, colours, handicaps, sex, gender, social position, wealth and so on. Oddly enough, these unlocated intelligences are meant to have an interest in what Rawls calls primary goods – such things as power, wealth and station in society.

It is possible to read Rawls as an example of the bureaucratic philosophical

mind at work.⁹ All the complexity of our actual situation is dismissed so that we can concentrate on a depersonalised, abstract account of justice that can be applied to any culture independent of historical context, form of social organisation or physical situation. As with other kinds of framework thinking, the damage is done once we agree to embark on the thought-experiment. For then it really does seem as if the issues of justice are involved in the debate about just which forms of the fundamental and the derived principles would be acceptable to our imagined intelligences. The fact that non-human animals cannot be easily incorporated into such discussions about justice is noted in passing by Rawls himself. The way this is done shows how the simplifying story has not simply helped us focus on the essence of what justice is. Rather, it makes it difficult if not impossible to raise some questions about justice. This provides a further example of how a framework of ideas is limited in the nature of the questions which can be posed within it.

Likewise when a World Bank report describes wildlands as providing 'an unending stream of benefits and services which support and enhance economic development' it has locked itself into the scheme of the resource economist (see Ledec and Goodland 1988). Non-economic considerations are now marginalised and thus hard or impossible to raise. One symptom of this is found in the way the same report finds itself unable to give proper weight to non-economic considerations even when it tries to do so. For example, in giving an account of the scientific reasons in favour conserving bio-diversity, the report concludes:

In addition to the direct economic applications of researching poorly-known species ... more basic scientific research is also likely to provide eventual economic payoffs.

But to say this is simply to return to the economic framework again, not to have found a non-economic set of considerations.

Some attempts have been made in philosophy to get away from bureaucratic models and there are attempts within organisations to promote schemes of staff development which try to bring human values to the work place and reduce the depersonalising effects of the bureaucracy. One venture at the University of Western Australia involves offering ethical reviews and audits to schools, business organisations and the public service. Instead of dealing with questions about the meaning of ethical terms, or framing codes of conduct the reviews emphasise two things. First, there is the organisation's ethical 'mission' as perceived by those working in it and by the surrounding community. This can be thought of as dealing with *external* relations between the organisation and its clients and other groups. Second, and often not unconnected, are the relationships and structures *internal* to the organisation. These involve many issues, ranging from styles of teaching and management to questions about the best structures for resolving conflict and ways of bringing value issues onto the agenda in the school or the workplace.

Applied to a school or university, for example, an ethical audit would raise

issues at three distinct levels:

- the 'mission' of the institution and its ethical ethos;
- provision (both overt and covert) at the syllabus/curricular level; and
- ethical development and values discussion at the individual and departmental level.

Each of these levels has its 'internal' and 'external' dimensions. The intention of the work in Western Australia is that as a result of it people within organisations will be empowered to raise and resolve ethical issues for themselves. This will be due to a clearer understanding of the issues together with establishing structures for ensuring that ethical concerns get a proper hearing, appropriate discussion and are fed into the policies of the larger corporate body.

Environmental ethical issues can be properly raised in such reviews and then become part of the dialogue started within the larger body. It is too early yet to say what the outcome of the Western Australian experiment is likely to be, but it will be interesting to see if bringing ethics explicitly onto the agenda in educational institutions and other organisations highlights concerns about the environment. These arise for both internal and external aspects of organisational function. Note that although philosophy has a role to play in this new enterprise, it is not its traditional one of exploring justifications for ethical positions or studying theoretical matters such as whether morality is subjective or objective, or whether what is right can be defined by reference to what is good.

SUMMARY AND CONCLUSION

I have tried to make a number of suggestions which might lead others, more skilled than me, to take steps to propose a form of education for environmental literacy. I have outlined the dangers of framework thinking, and suggested that learners should be exposed to work that makes these dangers clear – not always necessarily by explicit comment. I have also mentioned one way in which we are trying in Western Australia to tackle problems associated with bureaucratic thinking and the institutional depersonalising of actions. There are many other items that could be added to the list I have started. Drawing again on Dewey, there is the whole question of exposing learners to first-hand experience of natural systems. Here much might be learned from Zimbabwe's school gardens scheme, where children in rural schools spend significant time working in the school garden, and other studies are linked in to this – for example, chemistry, accounting, mathematics, and biology.

The environment and literature is another field about which I have been silent. Edward Said has argued that the history of civilisation is also the history

of barbarity, for each advance in high culture and wealth has been bought at the cost of loss of life, displaced people, colonial oppression and other barbarities.¹⁰ How often have the novels of Jane Austen, for example, been studied with a view to asking how the lives of her characters are maintained? Without the estates or plantations in Antigua and elsewhere, how would those little dramas and intrigues have been possible? The study of English literature can thus be a proper part of the subject of human ecology or even an introduction to human ecology itself.

Many challenges remain to be met in providing appropriate education to a world in crisis. The present rather theoretical paper has tried to meet the demands of people who seek a larger structure within which to make sense of their actions and recommendations. Doing this is one legitimate role of the philosopher and I hope that the suggestions made here may at least stimulate others to take the project of education for environmental literacy a stage further.

NOTES

¹ I have tried to give at least a rough account of how the environment influences our personal identity in Brennan 1988, especially chapter 12.

² It is the normative aspect of education which leads Paulo Freire to regard it as a political activity. Politics is also concerned with norms and with how citizens think the affairs of their country ought to be organised, but to view education purely as a political activity is to see it too narrowly, I would argue. See Freire 1972, 1974.

³ See *Resurgence* 154 (October 1992) for a brief overview of the inner track methods

⁴ See Galina Kitaigorodskaya *Intensive Language Teaching in the USSR*.

⁵ For an account of a modern revival of this issue see Ruse 1982a. For further reading, see Ruse 1982b.

⁶ John G.U. Adams of University College, London, makes this point forcibly by asking his economist opponents the rhetorical question: "How much for your grandmother?" To ask – or take – such a question as a real one reveals a serious moral failing.

⁷ This was suggested in conversation by Ulrich Loening.

⁸ I take as target here Rawls 1972, and ignore his later work.

⁹ There are other ways of reading Rawls too! A more generous reading sees him as trying to develop a conception of what is constant behind apparently different practices in different societies. For although the precise form of just behaviour may differ from one society to another, all will likely share a respect for, and concern with, justice. Further, the development of fundamental principles of justice will enable thinkers, at least in theory, to be able to provide a critique of those societies which fail to implement the principles in any plausible way. However, such a 'universalist' enterprise would fall foul of those critiques of modernism which deny the existence of any transcendent perspective from which to carry out a critique of actual historical and social practices.

¹⁰ Said 1992. For a different aspect of literature and ecology, see Meeker 1974 (1980). This essay on literary ecology argues in favour of the comic and the amoral as resources to draw on in facing environmental crises.

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