

AN ETHIC FOR GEOGRAPHY: THE ROLE OF THE AFFECTIVE DOMAIN IN DEVELOPING ENVIRONMENTAL AWARENESS



Margaret E. Marker

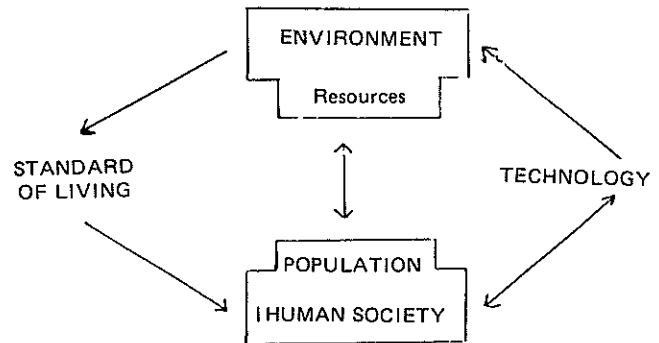
Geography is a subject with integral ethical and moral components. However, because of the subject's traditionally close association with scientific rationality this factor has not always been recognised. The significance of the affective dimension of geographical learning is explored for its value in creating and developing both environmental awareness and environmental responsibility.

"Man today is confronted by a plethora of problems concerned with his relationship to nature. The problems are generally recognised. Solutions are a matter of constant controversy but much of the debate..... is ethical and moral."

(Moss 1982, p.1)

Ethical and moral issues pertaining to the discipline ought to be matters of prime importance to teachers, yet acceptance of this sphere of responsibility came late to many disciplines. Geography is a problem orientated environmental science. Its field of study is Man-Land relationships and the patterns that result from the interaction. The two key issues are that geography is a science which is concerned with real world relationships and that people are involved. Geography includes both physical and social dimensions so attitudes should form a part of geographical explanation.

The highly valued scientific status of geography has, however, exerted a constraint. The nineteenth century legacy of rational science untrammelled by ethical considerations affects all sciences but has been particularly critical for those borderline to pure science. To be scientific has been equated with working solely with scientifically reproduceable facts with the aim of developing a body of theory. Attitudes were irrelevant or of secondary significance. As a consequence, behavioural and perception studies have been a later addition to the range of geography. But people do not behave in a "rational" manner. It is their technological expertise and social attitudes that control the impact on the physical environment and create the patterns that geography holds as its proper field of study (Fig. 1). Behavioural and perception studies have now had to become acceptable as relevant aspects of geographical study with valuable explanatory roles.



After Dunlop 1976

FIGURE 1 A MODEL FOR GEOGRAPHY

Geography can provide the experience and a learning environment to facilitate acceptance or rejection of certain attitudes and indeed should be geared to provide this essential service. The field of geography has an intimate concern with both the natural and the built environment. As an academic discipline at secondary and tertiary levels in education, it should have a role to play in awakening environmental awareness, environmental understanding and concern for the environment. Yet such a role has ethical and moral dimensions; dimensions until recently eschewed by most practitioners. The excuses have been varied: pressure of syllabus, examination work, irrelevance, lack of information — the list is endless but ultimately it reflects an avoidance of an unknown dimension.

All learning has three dimensions: cognitive, psycho-motor and affective. Knowledge, the mainstay of rational science, is cognitive and receives acceptance. Skill dexterity lying within the psychomotor domain, is acceptable but is ranked at a lower level. Ethical and moral aspects that pertain to the affective domain, have often been excluded or ignored as irrelevant to rational science. This has implications not only for the education of future citizens but in public liability for specific actions. Scientific rationality thus still exerts a significant constraint as whenever a scientist, stressing environmental concern in the long term, has his views dismissed as those of a crank or dreamer. Strength of character is needed for a young academic to forfeit chances of advancement by insisting on striking a balance between fact and values. Even if the risk is imagined rather than real, the constraint exists. The hidden constraint of scientific rationality also makes it hard to maintain a balance in teaching between the cognitive and affective domains. There are few teachers able to maintain the balance between all three facets of learning. They themselves have lacked a balanced exposure. Now they avoid the affective domain, feeling that the moral dimension is a risky field. On the one hand they ask: Can attitudes be taught at all? Should they be taught? Are our attitudes, as teachers, necessarily those for our students? On the other hand, have teachers or parents the right to avoid the affective domain? Do they not already insist on certain standards of behaviour, certain conformity in society and is this not an aspect of the affective domain? This dilemma is not new. Socrates first asked whether virtue could be taught (Ryle 1969). There now seems to be agreement that attitudes cannot be taught in the same way as knowledge; they can

only be conditioned. Attitudes form part of a person's value system which is itself the product of his or her social upbringing, experience and stage of moral thought development (as defined by Kohlberg 1971).

There are four main problem areas in including the affective domain in teaching. First, can one ever avoid influencing the affective development of one's students? It appears to be unlikely. Secondly, should one consciously set out to influence affective development? Experience is gained through cognitive learning. An open enquiring learning environment can be structured to favour the development of awareness but attitudes cannot and should not be imposed (Fig. 2). They must develop of themselves with guidance. When one accepts one's own responsibility towards society and the environment in order to develop in students an environmental awareness, a sense of responsibility and willingness to take action, then one must take cognisance of the affective domain in curriculum and syllabus planning. Thirdly, the distinction between indoctrination with at best bias and at worst propaganda, and the development of attitudes must be clearly recognised. Fourthly one's own innate value system must be appreciated and due allowance made for it. Although it is impossible ever to stand outside one's own value system or to be entirely free from value judgements, one can and must be aware of the difficulties. In South Africa there are a great number of different value systems. It is clearly morally undesirable and unethical to impose a single value system even were it possible. But equally one shirks one's responsibilities if one fails to educate in such a way as to enable acceptance and recognition of the existence of the moral dimension.

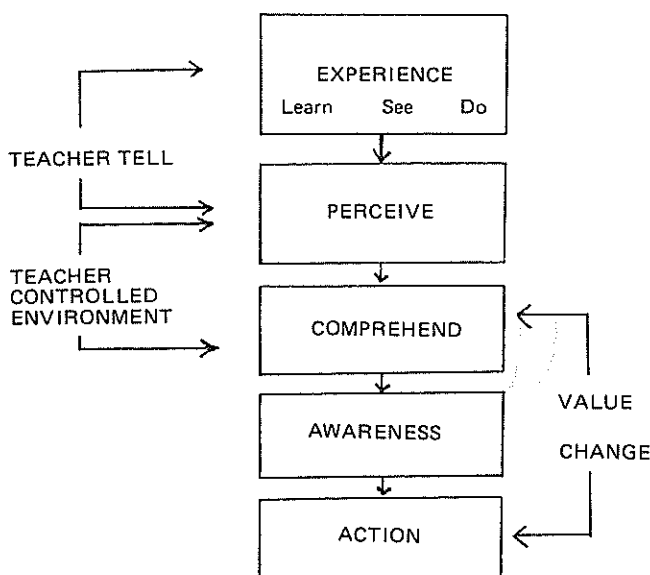


FIGURE 2 STAGES IN AFFECTIVE DOMAIN

The need for a moral and ethical stance in South Africa* is great. The South African environment is in jeopardy. A few examples may serve to emphasise the severity of the problems facing all of the country's inhabitants. The population in 1980 totalled some 25 million persons. By the year 2000, in less than 20 years, a population of 50 million is projected, for South Africa has one of the fastest population growth rates in the world; 2,6% compared to Europe's 0,8% or even India's 2,1%.

Of the farmland where 50% of all people will still live in the year 2000, 77% is unimproved veld grazing for reasons of relief, soils and drought. Only 6,5% is cultivated and the possibilities for further expansion are limited. At present the amount of crop growing land is only 0,6 hectares per person. It will drop by the year 2000 to 0,3 hectares per head. The average agricultural yields of basic foodstuffs are low. In their improvement lies the only hope for 'survival'. Better land utilisation and improved farm practices are essential on all land.

Yet agricultural pressures on a potentially vulnerable natural environment have caused severe soil erosion on slopes and silting in dams and estuaries. Despite Soil Conservation Acts passed in 1946, 1960 and 1968, to date only a quarter of even the European farmlands have been brought under effective conservation control. There is as yet no map available of soil erosion incidence or soil erosion vulnerability.

South Africa is prone to drought and flood. Water availability already constrains further industrial development in the Pretoria-Witwatersrand-Vaal urban conurbation. Extra water must be drawn from outside the country. Water must no longer be considered as a free, easily available commodity. As the standard of living rises for all people, so the demand will rise, additional to the demands caused by population increase. For instance, in 1830 water used in the UK was only 4,5 litres per head per day, — small industries and few bathrooms. By 1960 it was 230 to 270 litres per head per day and by 1980 it was over 450 litres per head per day. Water pollution is an aspect of the water availability problem but recycling and re-use of the precious commodity is still the exception rather than the rule. It has been suggested that South Africa's water problems arise from a refusal to acknowledge that this is a dry country and to plan accordingly.

South Africa has one of the world's richest flora and fauna, a precious scientific heritage which is itself a tourist attraction. Yet development is proceeding with inadequate control and conservation of this irreplaceable resource. Some habitats are already lost and many others are in jeopardy.

Geographers are trained to be problem orientated and to think spatially. They have a duty to make their students and pupils, and through them, society, aware of these dangers to the environment and conscious of the need for conservation. Conservation has a concern with the optimal use of the environmental resources for the benefit of mankind now and in the future (Bunge 1962). Most current environmental problems stem from differences in time perspective. The conservationist wants resource management for the future; the economist requires maximum cost-benefit here and now. The developer seeks a return within his own lifetime and as soon as possible. White South Africa at least is geared to a money economy and thinks almost always in profitability terms.

* South Africa is taken in this papers as including the Republic of South Africa and the Independent Black States.

"Man-centred attempts to use goods provided by the environment in a so-called economically optimal fashion not only neglect the fact that the environment is a sensitive integrated system but also presuppose that a consensus exists as to optimal usage." (Rees 1977).

Big business wants profits but ignores externalities in their cost-benefit analysis considering air, water, and soil as free commodities for use or for disposal. Some economists now suggest that environmental problems arise from the *failure* of the free market system to ensure full cost-benefit analysis (Rees 1977). But how can scenery be valued? Any such valuation pertains to the moral dimension.

Geographers recognise environmental problems as the product of stress on a vulnerable dynamic system and simulation studies should permit accurate forecasts of environmental change in the wake of a given development. The problem then becomes one of selling the conservation view in terms intelligible and acceptable to the developer. Again the ethics of action or status quo or even of tacit silence pose problems for the geographer as an environmental scientist. Moss (1982) believes that contemporary decisions about the environment must be made in the light of their absolute significance. He stresses the need for moral and Christian responsibility and writes as an overseas committed Christian. A time diffusion and delay and a different economic climate may make his views unacceptable here. Bunge (1962) also insists that all disciplines are basically sciences of survival. For too long geography has emphasised human as opposed to physical, man against nature instead of Man *in* Nature. A change in concept is essential. The problems of the environment are those of conflicting claims on the same limited resource. Planning for multiple land use must come. The key words are *planning* and *multiple*.

Geography by virtue of its status as an environmental science is of necessity concerned with environmental problems. Should geography be taught without exposing students to these problems, making them, aware of the manifestations, causes and economic costs of prevention, cure and conservation? If society has indeed the right and responsibility to make resource management decisions, the answer must undoubtedly be no. But education has as one of its facets, the socialisation of its members to conform to the common value system of society and thus to avoid potentially dangerous diversity. The problem then arises that South Africa has no common value system. The development of the affective domain must be approached in different ways or lead to alienation.

Overseas there has been increasing awakening to the need for inclusion of the moral and ethical aspects, part of the affective domain. There the Christian underpinning of the affective domain has been emphasised. A moral and ethical stance can however rest on many codes other than Christian belief. In a country such as South Africa, where Christianity is by no means universal, it is pertinent to divorce the necessity for a moral and ethical stance from any Christian basis. Such an alternative value system, or moral code based on optimal usage and resource management for general benefit has little credibility in the present economically orientated industrial society. The path of innovators is always thorny! All teachers and leaders have a responsibility to produce thoughtful people with flexible attitudes to accommodate future change. The students themselves go out into society. Their South African society undoubtedly has pressing environmental problems.

Geographers are aware of the problems and must recognise their potential role in prevention and cure. Awareness and responsibility are attitudes, so geography must not ignore the affective domain. Geography has a moral and ethical dimension that is ignored at our peril.

References

BUNGE, W. 1962: *Theoretical geography*. Lund; Minneapolis.

DUNLOP, S. (ed.) 1976: *Place and People: A guide to modern geography teaching*. Heineman, London.

KOHLBERG, L. 1971: 'Stages of moral development.' In Beck C.M., Crittenden, B.S. and Sullivan, E.V. (eds.) *Moral Education*. University Toronto Press, Canada.

MOSS, R. 1982: *The earth in our hands*. Interscience Press, Leicester.

LEES, J.A. 1977: 'Economics of environmental management.' *Geography* Vol. 62 pp. 311-324.

RYLE, G. 1969: *Can virtue be taught?* Hutchinson, London.