BOOK REVIEW

PROMOTING ENVIRONMENTAL EDUCATION IN SOUTH AFRICAN SCHOOLS: INSIGHTS FROM BRITISH EXPERIENCES

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INTRODUCTION

Given historical associations between South African and British education systems from colonial times, and their current similarity with respect to national examination boards, I argue here that Goodson's (1987) analysis of the evolution of environmental studies in England offers insights for those desiring to incorporate environmental education in South African schools. These insights are informative whether one conceptualises environmental education as a distinct subject (as in the British experience which Goodson analyses), or as an approach to be taught across the curriculum. Orr (1992) makes a strong case for the latter approach; however, although favoured by South African educators (e.g., Hurry 1982; Irwin 1991), this approach is yet to be found in published curricula.

Much of this paper is a review of *School Subjects and Curriculum Change*, and it is framed around the three claims, or hypotheses, which are central to Goodson's study. The bulk of Goodson's text provides detailed, well-referenced and indexed empirical evidence which he employs to defend the validity of each hypothesis. While the text contains much of interest to environmental education, the hypotheses are clearly transferable across subjects and, consequently, are of interest to students of curriculum in general. In this sense, Goodson 'uses' his studies of geography, biology and rural studies (Part Two) to provide the empirical data required to examine each hypothesis. In this paper, I review these generalisable messages, and consider how they might inform our perspective as educators desiring to promote environmental education in South African schools.

In overview, *School Subjects and Curriculum Change* collates evidence to support three claims concerning the nature of curriculum development as they apply to the evolution of school subjects:

a) school subjects are shifting amalgamations of sub-groups and traditions,
b) in the process of establishment, subject groups move from promoting pedagogic and utilitarian traditions towards the academic tradition,
c) much of curriculum debate can be interpreted in terms of conflict between subjects over status, resources and territory.

SUBJECTS AS SOCIAL CONSTRUCTS

School Subjects deals with the evolution of biology, geography and environmental studies in the English (as in England) school system. Underlying the entire argument is the premise that disciplines and school subjects are social constructs and, as such, are not immutable; Goodson's socio-historical approach seeks to make explicit some of the rationale and interests upon which these subjects have been constructed, and by which their current form continues to be moulded. As Popkewitz (1987:2) notes,

> What is socially constructed are made to seem natural and inevitable elements. .. Yet, .. we forget that learning, teaching, and the school subjects have particular social histories.

As a contribution to educational reform, Goodson's aim is to provide an historical perspective which will inform the understanding of current practice. He derives this rationale from the studies of, among others, Bernstein and Young, the latter writing that

> One crucial way of reformulating and transcending the limits within which we work is to see .. how such limits are not given or fixed, but produced through the conflicting actions and interests of man in history (Young 1977:248, in Goodson 1987:7).

Regarding the problem of curriculum history itself, Popkewitz (1987:22) argues that it is only very recently that curriculum researchers have come to consider the social histories of school knowledge to be important. A strength of Goodson's work is that his focus is on the actual 'players' - representatives of particular interest groups, rather than the more abstract notion of the group alone. For instance, in *School Subjects* attention is given to Sean Carson's efforts in the "negotiation of environmental studies" (pp.166-181). In doing so, Goodson is enacting Musgrove's (1968) suggestion that

> subjects both within the school and the nation at large [be examined] as social systems sustained by communication networks, material endowments and ideologies. Within a school and within a wider society subjects (can usefully be examined) as communities of people, competing and collaborating with one another, defining and defending their boundaries" (p.5).

Goodson's study is therefore partly an analysis of the strategies which these individuals and groups have employed in order to advance their interests, but it is less a study of their strategies *per se*, than a study of the general educational mileau within which the groups have to act. To make sense of this mileau, Goodson embeds his study in a framework of the hypotheses, and uses these to illuminate the actions and deliberations of those who influence curriculum.

PROVIDING A CONTEXT: A WIDER HISTORICAL REVIEW

Goodson reviews the evolution of the English schooling system in order to provide a context for his arguments which relate specifically to three subjects. The text contains much that is of interest from an historical perspective concerning, for example, the appearance of the examination system and associated examining boards - bearing in mind a similar situation of national examination boards in South Africa. These wider connections all inform the main body of the work, especially the association between the drive for status, the importance of external examinations, and the academic tradition which is central to hypotheses Two and Three. Thus, Part One reviews briefly the evolution of a "hierarchy of high-status examination subjects" (p.24). Throughout the text, the influence of examinations, following the establishment of the examining boards in 1917, is shown to be pervasive, and acknowledged as such by interest group proponents. For example,

> Despite opposition which recognised the threat to the utilitarian and pedagogic advantages of the subject [rural studies], the association went ahead with framing examinations because as Carson said, 'if you didn't you would not get any money, any status, any intelligent kids' (p.100).

Aspects of status are considered in the section on Hypothesis Three. I now consider each hypothesis in turn.

HYPOTHESIS ONE: SCHOOL SUBJECTS ARE SHIFTING AMALGAMATIONS OF SUB-GROUPS AND TRADITIONS

The first hypothesis contains two sub-propositions: school subjects are amalgamations of sub-groups and traditions and, second, these amalgamations shift with time. Goodson identifies the origin of these notions in Bucher and Strauss' process model of professions (p.24), as well as Williams' (1961:9) suggestion that

> an educational curriculum ... expresses a compromise between an inherited selection of interests and the emphasis of new interests.

Goodson uses the notion of interest groups as an analytical tool in his study; his first hypothesis underlies the subsequent ones in that, accepting the existence of such groups, he was lead to search for sources of differentiation between them. In the most general sense, he finds they differentiate according to the general nature and purpose of the school curriculum which members of each espouse. These are grouped into three traditions, namely the academic, the utilitarian and the pedagogic (p.25). These three traditions serve as major categories in Goodson's argument, in that virtually all proposed changes to a subject, as well as counter-arguments, are taken to be grounded in one (or two) of them. They are further discussed in the section on Hypothesis Two.

This notion of sub-groups can be usefully transferred to any disciplinary or interdisciplinary curriculum, as it encourages one to consider the arguments made by individuals (who, after all, comprise groups) as they promote their values. This offers an alternative to thinking in terms of differing 'practices' or types, which Robottom (1990) argues are contained within the "slogan system" of environmental education. It also emphasises the role of people as players in curriculum development, and it encourages one to focus on interest groups and the rationale advanced by their constituents: these rationales underlie their practice. Thus, environmental education can be conceived of as an amalgamation of interest groups and individuals, loosely associated as a result of a common general aim - to promote environmental education. Particular individuals or groups, or constellations of groups may, however, embody quite different aims. For example, one might compare and contrast the instrumental aims of "reform environmentalism" (Devall & Sessions 1985:2) with a conception of environmental education as cultural criticism (Gough 1990:17). The different values embedded in these approaches derive from quite different underlying philosophies (Gough 1989). In short, one cannot assume conceptual homogeneity within the environmental education initiative: different environmental educators have different values which they wish to promote. The emergence and proliferation of sub-groups and sub-versions is a recurrent feature of a subject's history, as Goodson summarises in the cases of geography and biology (pp.184-186), and is an indication of the diversity of interests and values espoused by individuals located within the more widely-defined (hence, more widely-shared) subject area. Given the range of ideological interests underlying different approaches to education in South Africa (Ashley 1990), a similar diversity can be expected within any subject discipline in this country.

HYPOTHESIS TWO: IN THE PROCESS OF ESTABLISHMENT, SUBJECT GROUPS MOVE FROM PROMOTING PEDAGOGIC AND UTILITARIAN TRADITIONS TOWARDS THE ACADEMIC TRADITION

By "academic tradition", Goodson refers to the subject-based curriculum confirmed by the examination system, and by "utilitarian tradition", to the "low status" practical knowledge, related to non-professional vocations in which the majority of people work for most of their adult life (p.27). This low-status is

> shared by the personal, social and commonsense knowledge stressed by those pursuing a child-centred approach to education. This approach with its emphasis on the individual pupil's learning process can be characterised as the pedagogic tradition (p.28).

Goodson defends the validity and relevance of these traditions by referring to other historical studies, for example, through equating his categories with those discerned by others. To defend the sequential aspect of the hypothesis, he analyses the development of three subjects, geography, biology and rural studies: Part Two provides the detailed evidence, treating the origins and evolution of each subject separately in different chapters. For instance, in the history of Rural Studies (Chapter 6), the views of proponents of utilitarian and pedagogic aspects (p.84) serve to introduce the early stages of rural studies. These proponents were constantly having to defend and justify their position, for example, in the face of criticism that rural studies was interpreted in terms of reproduction of (lower) class structures (p.89). Pressures such as these, but particularly the growing influence of examination boards and the status accruing to examinable subjects, influenced a revision of strategy. These revisions lead curriculum theorists to the realisation that "... to survive, rural studies had to be defined and organised as a subject." (p.95). In turn, this prompted the growth of subject associations, with the intent of raising the status of Rural Studies in order to gain access to resources (p.94). Thus, rural studies was reformulated, incorporating 'more rigorous' elements such as scientific components and examinations.

The end point of this process was the establishment of an academic base in university departments: from this stage on, the university departments were empowered to play a major role in defining the subject by various means, including control over teacher training as well as through influence on examination boards (p.191). In this manner, the academic nature of the subject became entrenched, with an inevitable de-emphasis of alternative orientations. The dominance of the academic subject tradition is expressed not only by the ideology of influential people, but by organisational structures (comprised of such individuals) through which curriculum initiatives must be reviewed:

> When an interdisciplinary syllabus combining academic, utilitarian and pedagogic intentions is appraised by such committees only in terms of the academic content of existing disciplines, the judgement is merely self-fulfilling and serves to duplicate the traditional academic content of existing disciplines within the new subjects (Goodson 1987:179).

Significance of this trend

This proposition accords with a number of studies other than Goodson's, and these all serve to enhance

its validity. For example, Goodson refers to Layton's interpretation of the development of science education in the nineteenth century, where emphasis was increasingly placed on abstract knowledge with a consequent separation from the practical world of work (p.27). What are some implications for the environmental education curriculum initiative? Robottom (1990:42), for one, acknowledges this tendency by arguing that in order to become established in the curriculum, environmental education must

> engage in 'solicitous surrender' - to voluntarily give up something of its identity (its very name) and to associate with established, discipline-based subjects ..

Goodson's first hypothesis illuminates this dilemma: it is not environmental education *per se* that must surrender part of its identity. Rather, conceptions of environmental education advanced by certain interest groups will diminish with time, while others, promoting a more academic conception (hypothesis two), will be advanced. An example consistent with this explanation concerns the introduction of Environmental Systems into the International Baccalaureate programme in the early 1980s: this course is categorised within the programme together with the natural sciences (physics, chemistry, biology) as an 'experimental science'. My experience as a teacher of this course in Swaziland is that, while there is clearly great scope for wide-ranging consideration of attitudes and values, it quite clearly embodies a scientific conception of environmental education. Thus, a particular conception of environmental education has become established in the programme: that it is explicitly associated with the "rigorous" sciences is entirely consistent with Goodson's hypotheses.

HYPOTHESIS THREE: MUCH OF CURRICULUM DEBATE CAN BE INTERPRETED IN TERMS OF CONFLICT BETWEEN SUBJECTS OVER STATUS, RESOURCES AND TERRITORY

The importance of status

An important message of *School Subjects* is that curriculum developers must "play the status game" (p.36) if they plan to realise their ambitions in promoting a particular conception of education within the formal schooling system. Goodson emphasises the importance of status not as an end in itself, but in terms of its association with resources. For example, associated with a high status subject is the guarantee of a subject's territory in terms of a separate university department or even faculty, priority in terms of finance, rooms, furnishings, equipment, resources and graded posts, as well as the allocation of pupil clienteles within the school. An overall message is that status is inextricably linked to academic orientation and emphasis. Hence,

> subject groups pursuing the material interests of their members will move progressively away from the pedagogic traditions and promote themselves as academic subjects (p.35).

Support for this third hypothesis is evident in Goodson's analysis of the struggle to promote environmental studies as an academic subject. In terms of the second hypothesis, the promoters of environmental studies formulated their subject in increasingly academic terms in order to enhance status via the introduction of fully-fledged 'A' Level examinations (and consider the incorporation of Environmental Systems, discussed above). However, rather than encouraging this increasing academic emphasis, scholars in related disciplines such as

geography and biology reacted by refusing to acknowledge it as a scholarly discipline. This condemnation led one of the chief proponents of environmental studies to conclude that the entrenched subject committees "jealously guard the preserves of their subject" (p.180). In fact, Goodson concludes that "considerations of an intellectual sort were thereby subordinated to the defence of subject territory." (p.192).

Thus, this third hypothesis, in illuminating the conflicting nature of curriculum debate, takes off from the point where the second ends, *i.e.*, following the establishment of an academic formulation of the subject, and the primacy of 'academicism' in general. It also qualifies the second hypothesis by noting that the trend to increasing academic formulations of a subject cannot alone explain future curriculum developments. Thus, rather than promoting the academic orientation as a first priority,

> established subjects (will) defend their academic status at the same time as denying such status to any new subject contenders, particularly in the battle over new (examinations) (p.190).

Through this hypothesis, Goodson exposes the extent to which the interests inherent in organisational structures (high status subjects and, especially, the examination system) embedded in the *status quo* now hold precedence over educational interests *per se*. In a general discussion on p. 36, he portrays this vividly in a memorable sentence:

> By laying claim to high status 'academic' formulations of the subject these subject associations ensure that the special interests of their members are best served. ... it is the status rather than the usefulness or relevance of each subject's examinable knowledge which ultimately takes priority (emphasis added).

I contend that the excerpt above has far-reaching implications for the incorporation of environmental education in our schools.

CONCLUDING COMMENTS

Goodson's socio-historical study highlights powerful influences on the school curriculum: he reminds us of the political nature of social interactions, in the context of individuals and interest groups promoting certain orientations of their subject, as well as inter-subject competition between advocates of different subjects for resources. Further, he stresses the conservative aspect of established structures: in the early phases of becoming established, curriculum initiatives will tend to assume an academic orientation, in line with the status quo of entrenched orientations.

A consequence of Hypothesis Two accords with Robottom's notion of 'solicitous surrender', and this encapsulates very clearly a dilemma faced by proponents of other than an exclusively academic tradition. Such surrender is noted by Goodson in the evolution of rural studies, biology and geography in the past, and is predicted in the case of interdisciplinary studies such as health education, science, technology and society (STS), and environmental education (Gough 1989). Bear in mind that the very impetus for the promotion of these subjects stems in part from the perception of deficiencies in academic curricula as being 'too theoretical', 'too compartmentalised' and, in the case of environmental education, for their lack of concern regarding learners' actions in the environment. Orr (1992), for example, argues strongly for a reconceptualisation of formal education, away from current emphases on abstract knowledge and towards

an integration of place in education. His general argument is that, given the severity of looming global crises, the association between knowledge and actions ('living') should receive much greater emphasis in curriculum. However, proposals, for example, for an education which would educate "people in the art of living well where they are" (Orr 1992:130), contrast with the tendency which Goodson exposes in his second and third hypotheses. In the context of the (British) system, if these initiatives were to become established, they are expected to become like the subjects (or approaches) they were designed to replace! South African educational systems are no different to British counterparts in this regard, given their heavy emphasis on evaluation by means of external examinations. Ballantyne and Oelofse (1989), for example, raise various examination-related issues, in their paper dealing with the implementation of environmental education in a South African curriculum.

Particular conceptions of environmental education, namely those stressing its critical orientation, interdisciplinary character, and emphasis on issues relevant to the wider environment represent a challenge to existing patterns of schooling (Robottom 1985). The political nature of these challenges is recognisable in their call for a change in the status quo, in a consequent competition for resources which would ensue and, as argued above, increasing pressure to 'academicise'. This prediction holds whether one is thinking in terms of a distinct subject, as in the British experience, or as an approach across the curriculum, as favoured by South African educators (Hurry 1982; Irwin 1991). Indeed, this insight from the British experience directly concerns the debate on the curricular location of environmental education. To remain 'intact', *i.e.*, to resist the surrender of elements which are at odds with the academic tradition, is it best placed as an 'extra-curricular' activity? Innovative endeavours such as Van Matre's (1979) 'Acclimatisation' programmes, which stress the necessity of sensory (*i.e.*, 'non-academic') experiences, point to the success of such strategic decisions. However, within 'the system', there is a growing presence of university faculties of environmental studies/sciences/education (*e.g.*, the Universities of Cape Town, Bophutatswana, and Rhodes). In the light of Goodson's claims, these scholars can be expected to emphasise an academic orientation in their conception of environmental education. The adoption of an academic orientation would, however, favour a subset of conceptions of environmental education currently espoused in the literature: which elements would likely be excluded? How might these influences be addressed, so that more inclusive approaches to environmental education may be practised in South African schools?

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