A synoptical delimitation of geographical didactics

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Biilmann, Ove: A Synoptical delimitation of geographical didactics Geografisk Tidsskrift 82: 5-10. Copenhagen, June 1. 1982.

A synoptical delimitation of geographical didactics which relate to geographical tradition, academical geography, general pedagogy and practical teaching.

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1. »DIDACTICS« - part of the geographical tradition

Disciplinary didactics is concerned with instruction, theorization, reflection and research into the educational dimension of a discipline and its scientific, philosophical and social foundation. The systematic development of a sub-field concerned with geographical didactics in this broad philosophical and disciplinary context has occurred largely within continental Europe, and it is from here that the term »didactics« has been derived (Blankertz 1975, pp 11-17, Ebinger 1976 pp 44-59, Sperling 1981). The broad theoretical character of didactics leads consequently to a concern with the educational dimension of the discipline at all levels of study. The fact that the systematic development of this sub-field has occurred largely in continental Europe, particularly Germany, does not mean, however, that British and American geographers have not made important contributions to didactics. English language and continental sources are treated together here. The following personal and therefore selective review of an otherwise enormous literature ranging from theoretical pedagogy and epistemology, to geographical theory, to classroom texts, is intended to give an introduction to the disciplinary perspectives which didactical study can provide. It should also give an impression of the tasks ahead for this sub-discipline, and the contribution which academic geographers might make.

The relationship between geographical research and geographical education is complicated, if not to say full of contradictions. Scientific circles, on the other hand, have sought to influence geographical education with regard to scope, content and point of view. On the other hand, educational research is rarely considered to be as worthy of merit as other forms of geographical study. Despite good will and serious constructive efforts this has resulted in didactics often either becoming »subsidiary« work for university geographers, or, in its being relegated to specialised circles which can have difficulty maintaining contact with both research and practical teaching. This is illustrated by the educational journals which are directed to academic geographers, geographical didacticists and geographical teachers respectively (e.g. *Journal of Geography in Higher Education, Geographie und ihre Didaktik, Praxis Geographie* and *Geography).* The individual sub-disciplines tend to write primarily for each other though there is a clear tendency for geography didacticists and academics to write many of the articles which are aimed at geography teachers (cf. *Geography, Geographische Rundschau* and *Praxis Geographie).* Under any circumstances, widespread communication – through comprehensive theoretical, practical and innovative cooperation – is one of the greatest challenges to didactics.

Didactics, it might be said, mediates between scientific geographical research and the geographical awareness of the community. This awareness derives broadly, through education, from geographic research, at the same time as it provides the social basis for the researchers' enquiries. Didactics, therefore, becomes concerned with the character of geography as a discipline, with a tradition, developed through historical experience, of resolving apparently conflicting demands of the community and scientific enquiry. The mediary position of didactics can be illustrated by the example of the apparent conflict between regional and systematic geography which divided many academic geographers, but which required a resolution on the educational level (Biilmann 1980).

There is on the one hand a general expectation on the part of the community that geographical education will inform about countries, communities and environments. That is to say that there is an expectation, in one sense or another, that *regional geography* ought to be taught. Academic geography, on the other hand, carries the expectation that geographical education transmit theoretically and methodologically satisfactory knowledge, skills and frameworks, which contribute to the acquisition of general insight (Bruner 1971). That is to say, an expectation that *systematic geography*, or different perspectives and themes from systematic geography will become the principal content of education.

Such apparently contradictory but nevertheless complementary expectations are significant for several reasons. They reflect the age old complementarity between systematic (theoretical) and regional geography. Research, interpretation and discussion has invariably had to confront the

relation between these two dimensions of geography, which have been seen as being primary to the constitution of geography as a science and educational subject (Anuchin 1973 pp 57-62, Bartels 1968 pp 56-120, Bunge 1966 pp 203-213, Hard 1973, Hartshorne 1959 pp 108-145, Neef 1967, Sauschkin 1978 pp 174-227, 266-272, Schultze 1970).

The expectations placed upon geography by the community are an aspect of the continual requirement that geography legitimize its existence. Geography has always had to justify itself in order to obtain or secure a place in the curriculum or to obtain resources for research. The arguments have changed in accordance with scientific standards of value as well as with changes in social interests. The teaching of geography has been justified by its usefulness, by its place in a liberal education and by the desirability of better international relations etc. etc. (Carnie 1972, Walford 1969 pp 21-23). In this connection it is perhaps worth remembering that academic geography has often itself been justified by its educational role. In any case, discussion of the relevancy and legitimacy of the discipline, is important to the continued existence of the subject. It can not be avoided.

The increasing attention now being given geography which is orientated toward the humanities, hermeneutics and psychology, is, as with the case of the interest in regional geography, a response to the expectation that geography have a broad human and intellectual content, as well as more narrowly focused research goals (Tuan 1977, Gregory 1978). Already in the pioneering work of Lowenthal (1961) and Kirk (1963), the emphasis upon the interaction between the humanities and science within a genereal concern for geographical epistemology, made it clear that the presence of both dimensions was vital to the discipline. The broad concerns found in this work can be traced back at least to the emergence of the so-called new geography (Olwig 1980) and the revolutionary ideas of Kant, whose contribution to geographical understanding unfortunately often is understood only in the limited context of his specifically disciplinary pronouncements (Biilmann 1981 p 20, Livingstone and Harrison 1981 pp 362-363). This dimension of geography, because of its concern with the basis of geographical knowledge and experience will come to be of increasing theoretical and practical importance for didactics (Downs 1981, Stea and Blaut 1973).

The somewhat contradictory expectations of researchers and society, professionals and students is characteristic of geography and geography teaching. The different expectations and their fulfillment must always be weighted so as to reflect *tradition* and *context*. Let us take this weighting as a basis for a closer analysis of geographical didactics. This broad, long standing relationship between geographical research and geographical education provides the basis for the following brief review of some of the viewpoints and problems of geographical didactics.

The discussion of legitimacy and social expectations is a concrete expression of what, in a wider perspective, could be called the geographical contribution to, or impact upon liberal education – in German *Bildung* and *Bildungswert*. The majority of scholars in the history and philosophy of geography have touched upon this theme, implictly or explictly. Ideals and expectations have changed. Think about classical, utilitarian, emancipatory educational ideals and endeavours of education or for that matter about nationalistic or imperialistic ideals. Geography and geographical education have always had to evaluate and align themselves accordingly (Bartels 1970 pp 456-457, Biilmann 1981, Ebinger 1976 pp 95-98, 115-116, Evetts 1973 pp 120-127, Peters 1977, Pleines 1978).

There is good reason to take notice of the definitions of geography which are formulated more or less explicitly in the guidelines and frameworks or the content and structure of school geography published during recent years (Basislehrplan, »Geographie«, and Geography in the School Curriculum 5-16). These publications also have something to say to academic geography at a time when classroom geography is a vital part of the general education of the young (Zentralverband der deutschen Geographen 1980, Geographical Association 1981, Coates and Williams 1980).

A number of philosophers and geographers of the past have made important contributions to didactics by formulating concepts and ideas which have provided inspiration and a framework for organizing the content of education. They have been promulgated through the formulation of principles and guidelines for geography teaching as such (e.g. Davis 1889, Haggett & Chorley 1965 pp 367-370, p 373), or, and this is rather different, through textbooks. Didactics, here, becomes part of the »normal« field of geography and epistomology, regardless of whether the language of didactics is used or not.

2. DIDACTICS – A DEFINITION

What is didactics? From the educationalists' and the didacticists' point of view it can be defined in terms of the following dimensions:

An *»active«* or *practical dimension* which is useful when the educator analyzes the aim, content, planning and potentiality for his teaching.

A *theoretical dimension* which requires and contributes to disciplinary, psychological and pedagogical theory and knowledge.

A *research dimension* which involves educational, psychological and geographical research.

Described this way, didactics has an active, a theorizing and a researching side which is practised very differently and with very *different* mutual *weighting*. There are very different traditions which can be traced back, at least in part, to different national educational and instructional traditions and scientific environments (Barth & Schlimme 1976 pp 52-59, 122-144, Graves (ed) 1973, Haubrich et al. 1977, Schultze 1976, Sperling 1976). This gives importance to

comparative studies in the teaching of geography, vergleichende Fachdidaktik (Sperling 1981 pp 263-264).

This broad definition of didactics gives it status as a part of the geographical tradition. Despite the fact that didactics often has a practical aim and a pragmatic justification, it can also be seen as making a contribution to the development and nature of the subject. More generally formulated: the scientific contribution to the content and organisation of education is just as valuable for teaching as for the science itself. This complementary relationship is often troublesome but it can not be circumvented. The disciplinary tradition must continuously be renewed and re-evaluated because science and education are in a constant state of change (Bruner 1960).

In the following, a number of didactical perspectives will be surveyed. These perspectives can only be separated analytically as there is always an interplay between them, but developments during the last 2-4 decades, have, seen from a distance, caused at least some of them to manifest themselves clearly.

3. FOUR APPROACHES TO DIDACTICS

3.1. Theoretical pedagogy and disciplinary didactics

The first approach derives from didactics' ties to thought and discussion relating to teaching in general, i.e. that which, in short, could be called *pedagogy*. Pedagogy is a philosophical discipline even though pedagogical pronouncements and discussion cover the whole spectrum from philosophical analysis to practical, pedagogical *household remedies*. They all, however, have one feature in common: they are in one or another sense normative. General pedagogical principles and guidelines usually state what *should* be done.

The relationship of didactics to general pedagogy – and hereby to both philosophy and the community is both necessary and beneficial. It will always be there, whether it is recognised or not. The decades following the second World War show countless examples of didactics which not only have a connection with, but which are largely *derived* from, ordinary pedagogy (Bauer 1976, Birkenhauer 1971 pp 46-49, 338-353, Daum 1980, Haubrich et al. 1977, Heyn 1973).

It is a characteristic feature of several of the larger reformative and, generally, clearly normative, geographical teaching projects that they tend to have a background in various pedagogical ideas or »directions« from the immediate past. This background, which can be directed towards different areas of teaching is frequently derived from psychological theory and research. (High School Geography Project, »Raumwissenschaftliches Curriculum Forschungsprojekt«).

The hitherto most comprehensive European geography teaching project was initiated in the Federal Republic of Germany in the middle of the 1970's. This is the Raumwissenschaftliches Curriculum-Forschungs Projekt (RCFP), which is now at the point of termination. This effort to renew the teaching of geography, like its counterpart, the American High School Geography Project, has its background in both a broad geographical debate in the Federal Republic of Germany and in several pedagogical trends characteristic of the period. RCFP has mediated several reforms with regard to method and teaching styles which have sought to recognize the wishes of the community and developments in pedagogy. The contents have been thoroughly outlined in a practical fashion in the *Lernzielorientierung*. This project was organized according to a broad spectrum of themes or problems, which were rooted in the sciences and in this way the relationship between regional and systematical dimensions was shifted decisively in favour of the latter (Marsden 1980, Sperling 1981 pp 304-306, Zentralverband der Deutschen Geographen 1978).

This example illuminates the general tendency for disciplinary didactics to attempt to *»fill in the gap« between general principles and ideas, and practical geography teaching*. General ideas and rules are transposed, in a manner of speaking, to the subject matter of geographical teaching. There are, however, a number of difficulties associated with the implementation of such derivative didactics. Due to the rapid changes in popular pedagogical trends, geography teachers occasionally have found it difficult to recognise »the geography« in the teaching aims and subject matter proposals which have been adapted to these pedagogical ideas (Daum 1980, Ernst 1970, Hendinger 1970, Rhode-Tüchtern 1977). The implementation of these ideas has not infrequently proved difficult because it, in practice, turned teachers into communicators of often hastily formulated and changing subject matter which could be quite contradictory in content. Important arguments for and against »derived didactics« are summarized and contrasted in two short articles (Stargl. 1981, Vielhaber 1981).

The tendency to accept a more or less well analyzed *particular line of thought*, which is used as a basis for a given organisation of a discipline or a subject – has a parallel in academic geography. After the second World War many new ideas, (though they often could be found in the subject's earlier history) were aired, highlighted by a few good examples, and subsequently proclaimed as providing *the* structure in geography. However, there is a definite difference: The competing geographical philosophies can be regarded as being fruitful since many of them raise important issues. They have also helped the discipline to learn to live with the underlying complementary of the various geographical traditions (cf. p 6). The many twistings, turnings and internal contradictions of derived didactics, by comparison, are not productive because they tend to be regarded as being incomprehensible, or irrelevant, by many teachers of geography; and it is they who must put didactics into practise. This is the case whether or not the teachers' scepticism is strictly warranted (Daum 1980, Schrand 1978).

When disciplinary didactics is difficult to understand the geography teacher often has turned to other sources in

search of ideas, or help to do his job. The next approach which is mentioned briefly because it is well-known to academic geographers, might have had the same effect.

3.2 Academic geography and practical geography teaching
This second approach derives from the relationship of academic geography to geography teaching. One-way-communication has often been the rule, and this itself, is rather problematical. This one-way-communication has, indeed, often been seen as *the* only didactics for academic geographers. Complicated, but for teaching purposes irrelevant, or incomprehensible, problems have sometimes been successfully exported to the educational sphere along with scientific advances, which can and ought to be passed on.

A single example will suffice – »The quantitative revolution«. A necessary and much needed up-dating and clarification of the theory, method and conceptual basis of the subject, has, in much geographical education, become the teaching of methods and models which are not always useful in making a coherent contribution to the students' knowledge. The same model-orientated reform has, unintentionally, led to disappointment among students and in the community because of prior expectations of geography (Beck 1981, Cole & Beynon 1968, Schöller 1977 pp 36-37). Other innovative endeavours have been seen as being sophisticated and comprehensive projects which nevertheless fall within the same trend (Verduin-Müller et al. 1978).

There are other reasons for the occasionally modest result of qualified and well intentioned efforts to improve geographical education. One comes readily to mind: if we want geography to continue to be a useful school subject, academic geography must take a serious view of didactics – both in the theory and practice. This does not mean that all professional geographers should occupy themselves with didactics, on the contrary, it means that the institutes of Geography, as a group, should assure that the study of didactics is practised within a professional framework, and that it is reasonably well supported.

Our first two approaches have something else in common besides the difficulty of communicating, all too complex theory and concepts. This is the tendency to be primarily normative. Both deal mainly with *ought* rather than how. The next perspective, however, manifests itself more broadly on this point.

3.3 Practical pedagogy and geographical didactics
There are many examples of geographical didactics which seem to be *»derived« from practical geography teaching.* A further examination, however, will often disclose that many didactical initiatives are, in fact, derived from general pedagogic thought (3.1). The references made to practical geography teaching serve primarily to justify or gain acceptance for these ideas. The same can be said of the references made to practice and customs in the context of normative pedagogy in general.

Those assertions and evaluations, which, in fact, are the result of *teacher's experience and reflection,* are far more important to didactics than those derived from general pedagogy, but they are also, due to their nature, more difficult to interpret, mediate and utilize. There are several important explanations for this which derive from the teacher's working situation, education and the aforementioned efforts to implement normative pedagogical and didactical ideas.

There is hardly any doubt about the fact that many experiences from practical geography teaching are passed on to didactics. This happens, for example through the preparation of curricula and textbooks. Textbooks are quite certainly the most important force in determining the direction of geography teaching. The influence here from practical geography teaching is, however, rather informal. The desired, varied and qualified mutual interplay between academic geography and practical geography teaching does not occur. The both useful and refreshing variation of choice of subject and presentation in the magazine *Journal of Geography in Higher Education* does provide diversified and searching initiative on the part of academic geography.

Mention of the weak relationship between practical geography teaching and didactics leads us naturally to the fourth and last approach – didactical research. The stress here is upon enquiring didactics. That is to say that area of research, where both the leading didactical ideas and the teaching practice are examined and evaluated rationally.

3.4 Geography-didactical research
Empirical geography-didactical research, including educational research (Unterrichtsforschung, Malmquist and Grundin 1975 pp 18-25, Walter 1977 pp 1-8) encompasses great practical and theoretical problems (Campbell og Staby 1970, Flanders 1970 pp 347-357, 376-389, Merkens 1974, Ogorodnikov 1974, Walter 1977 pp 102-130).

Nevertheless, it is about time that theorizing and instructing didactics had the possibilities both to evaluate the effect of so much practical advice and diligent theorizing, and to obtain better and preferably comparable knowledge about that geography teaching which, after all, is the justification for didactics.

The *need for research* stretches from verification of precise hypotheses (for example concerning students' and teachers' geographical understanding, concerning transfer of this method or that knowledge, concerning the curriculum etc. etc.) to broad examinations of the effect, potentialities and assumptions of existing or suggested curricula.

Research within such a composite field without doubt makes heavy demands on resources and collaboration. This is surely one of the reasons why, in spite of a series of qualified attempts, precious little has been achieved. With regard to collaboration and division of work alone, great demand is made on expertise (Heipcke 1970 pp 209-243). In addition to this, and this is a crucial point, some of the *teachers* who are teaching within an empirical research project must in

fact act as *researchers* and be offered further education (Flanders 1970, Mac Donald 1976 pp 130-132, p 134, Williams 1978 pp 9-12, 15-20). If the teachers are not included in the research it will easily become epic in scope but superficially descriptive, as the teachers will mediate something forced upon them from above, and lack the education to undertake the planning, examination and analysis of an experimental curriculum.

4. CONCLUSION

A strengthening of empirical didactic research could be advantageous not to say necessary for several reasons. A closing of the gap between didactical theory and instruction, and practical geography teaching, could be achieved whereby the didacticist's relationship to practical geography teaching could be strenghtened to the advantage of both didactics and the teacher. At the same time didactics could support theorizing within the discipline itself, due to its concern with the world view and geographical understanding of the community. This *contribution to geography and geography teaching's continued organisation and relevancy* could be of service in the context of disciplinary theorization and practice. With this we are back to didactics as a part of the geographical tradition and as a part of both geography teaching and academic geography. These ties are important, no matter which persons or which institutions are concerned. The didactic practice, the center of gravity of the field up till now, has the difficult task of communicating understandably with schools and the public on the one hand, while on the other hand securing its scientific foundation with regard to geography, psychology etc. Theorizing and empirical research both have an important place here. A division of work and communication between different didactical areas, and projects, is therefore necessary. There is a task, here, which requires coordination on the part of institutions of both general and higher education.

I would like to thank Kenneth Olwig for constructive and critical help in rendering this article into English.

RESUMÉ

Fagdidaktik bidrager til, teoretiserer om og forsker i geografiundervisning og dens videnskabelige, filosofiske og samfundsmæssige grundlag. Geografisk fagdidaktik er derfor både en side af fagets tradition og et forum for analyse og diskussion af dets status m.h.t. epistemologi, forskning, legitimering og formidling.

Nogle udgangspunkter og tendenser indenfor geografisk fagdidaktik vurderes i lyset af den tyskprogede fagdidaktik og angelsaksisk (og nordisk) forståelse af geografi og undervisning. Samtidig illustreres fagdidaktikkens og geografiundervisningens relationer til geografiske videnskabelige miljøer og teoretisk pædagogik.

Fagdidaktik har en praktisk eller handlende, en teoretiserende og en forskende dimension. I de seneste årtier er der sket en stor og mangesidig indsats indenfor de første to områder, medens den fagdidaktiske forskning af flere gode grunde har været af beskedent omfang. Det gælder bl.a. sammenlignende og empirisk fagdidaktik.

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