

# Education, globalisation and the ‘voice of knowledge’

**Michael Young**

Institute of Education, University of London and University of Bath

## Introduction

This paper starts from a problem that is perhaps better expressed as a contradiction. On the one hand ‘Knowledge’ has undoubtedly become the major organizing category in the educational policies of international organisations and many national governments. Global similarities are increasingly apparent- whether they are expressed with reference to knowledge itself, to the knowledge society, to knowledge workers or The Knowledge Promotion

([http://www.utdanningsdirektoratet.no/templates/udir/TM\\_Artikkel.aspx?id=2376](http://www.utdanningsdirektoratet.no/templates/udir/TM_Artikkel.aspx?id=2376)) as the recent reforms of Norwegian secondary education are referred to. On the other hand the category ‘knowledge’ appears to be used in an almost entirely rhetorical way; the meaning of knowledge is at best implicit<sup>1</sup> and at worst virtually empty of content. One consequence is that such policies deny or disregard the idea that access to knowledge in the strong sense that involves its claims to reliability is central to the

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<sup>1</sup> As in the case I recently came across of a lawyer whose new post was Head of Knowledge.

whole purpose of education. Thus, what I shall refer to in this paper as the ‘voice of knowledge’ (Moore 2007) as a distinctive factor shaping educational policy, is lost. If I have accurately identified this trend and it continues, it is a highly problematic heritage that we leave to future generations-namely that there is no explicit knowledge that it is important enough to be ‘transmitted’ to the next generation. It is a heritage that has none of the visibility of the environmental or sustainability crises, although arguably, addressing it is fundamental to whether we are able to deal with either.

The aim of this paper is to explore this apparent contradiction and to begin to develop an alternative that takes the idea of the ‘voice of knowledge’ seriously. An issue that I touch on, but only by implication, is whether significant strands of the social sciences (and sociology in particular) may be part of the problem of denying a ‘voice’ for knowledge rather than being the basis for offering a viable alternative for the future (Young and Muller 2007: 2009).

The paper has five sections. **Section 1** provides a number of examples of how knowledge is interpreted in international educational policies and raises the question “why knowledge”? What purpose does such a focus on knowledge have in today’s educational policies? My examples are drawn from the educational policies of international organizations such

as the World Bank and new national curricula and national education policies- (my illustrations are from Norway and England). I also refer briefly to the work of the Portuguese sociologist, Buoventura de Sousa Santos, a leading critic of globalization, to indicate the terms within which the debate about education and the knowledge economy among globalisers and anti-globalisers has largely been set. My argument is that, despite treating knowledge as a main organizing category, international and national policy makers *and their critics* in effect bypass what I (following Rob Moore) mean by the ‘voice of knowledge’.

**Section 2** begins to make explicit what the idea of the ‘voice of knowledge’ in educational policy might mean. It starts from a paper by Moore (Moore 2006) in which he draws on the critical realist tradition in the philosophy of science and establishes the epistemological basis for the idea of the ‘voice of knowledge’ in education. However, in my view, despite its strengths, critical realism does not move us very far towards conceptualising a more adequate role for knowledge in educational policy.

**Section 3** builds on Moore’s ideas by arguing that the key idea implicit in a realist theory of knowledge is *knowledge differentiation*. This idea

is elaborated through a brief account<sup>2</sup> of the ideas of the French philosopher, Gaston Bachelard . **Section 4** considers the educational implications of the idea of the social differentiation of knowledge with reference to the work of Durkheim, Vygotsky and Bernstein. **Section 5** builds on Section 4 to explore five forms of knowledge differentiation as they apply to the curriculum. **Section 6** concludes the paper by returning to the idea of the ‘voice of knowledge’ as a shaper of educational policy.

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<sup>2</sup> My account draws on Christopher Norris’s Norris’s (Norris 2000:2005) excellent accounts of Bachelard’s ideas.

## **Knowledge as the new global narrative**

The striking thing about the many publications of international organizations and governments that refer to knowledge and the knowledge economy is that they don't feel the need to ask the question 'What is this knowledge that we are referring to?'; its meaning is simply taken for granted. As Susan Robertson (Robertson 2007) puts it in a recent paper which started me thinking about this issue- "Who can be against knowledge?" It is not therefore surprising, she writes, "that the idea of knowledge articulates with the left as well as the right". In UK terms this use of 'knowledge' is an example of a characteristic New Labour or 'third way' doctrine- it includes everything, it sounds progressive (or at least modernizing) but it says nothing substantive.

It is the word knowledge, rather than the related term 'information' that has caught on as the key category in the new education policy literature. I suspect that the reason for this is that, despite its multiple meanings and absence of any referents, the word *knowledge* does retain a public association with ideas such as certainty, reliability, and objectivity and even truth. Reference to knowledge therefore provides a kind of authority for policies that do not have to be justified in other ways. The authority of the term knowledge is taken over but not the basis of its claims.

A brief glance at documents produced by international organizations and governments indicates that the idea of knowledge acts as a license for a whole range of educational policies that have little directly to do with knowledge in the more specifically epistemological sense. Two examples of widely supported educational policies illustrate this point. The first is the emphasis on maximizing learner choice and the associated tendency for learning to become little more than another form of consumption. In a world dominated by learner choice knowledge loses all its authority. The second example is the popularity of the slogans 'personalized learning' and 'individual learning styles' and the gradual replacement of the terms education, school and college with their assumed elitism by learning and learning centres. This is not to underplay the importance of learners having an active role in any educational process at any level. It is rather to highlight the importance of distinguishing between the everyday or common sense knowledge that is acquired by individual learners in specific contexts and the idea that we acquire powerful knowledge (Young 2009) to take us beyond our everyday experiences. (Karpov and Heywood 1998). If this distinction is blurred or seen as unimportant, the role of teachers is reduced to little more than facilitation and support and we are not a million miles away from the idea of 'user-generated knowledge' that is associated with YouTube and Facebook (Keen 2007).

My argument is that an empty and rhetorical notion of knowledge and the increasing tendency to blur distinctions between the production of knowledge and its acquisition and between knowledge and skills –the latter unlike the former being something measurable and targetable- becomes a way of denying a distinct ‘voice’ for knowledge in education. Furthermore excluding such a ‘voice’ from educational policy most disadvantages those learners (and whole societies, in the case of developing countries), who are already disadvantaged by circumstances beyond the school.

Illustrations of this ‘emptying of content’ can be found in the educational policies of many countries; I will mention two briefly- England and Norway. Since the end of the 1980s, but increasingly in the last decade the control of public education in England has been centralized under the Department of Education and Skills(DFES). Schools, Local Authorities, Examination Boards and research councils have increasingly taken on the role of agencies delivering government policy. The DFES, now two departments- the Department of Innovation, Universities and Skills( DIUS) and the Department for Children, Schools and Families(DCSF), like all government Departments, are now regulated under a Public Service Agreement

(PSA) which governs the funds they receive from the Treasury<sup>3</sup>. The PSA for Education has five objectives broken up into 14 sub-objectives. All refer to generic targets and none make reference to any specific knowledge or curriculum content. Another illustration that is more obviously closer to what goes on in schools and colleges comes from the requirements laid down by the government for the new diplomas for 14-18 year olds. (<http://www.dcsf.gov.uk/14-19/index.cfm?go=site.home&sid=52>). These requirements set out in considerable detail the packaging, module combinations, credit levels and pathways for the diplomas, but make only minimal reference to content. Targets which are based on a common set of levels, and common units for measuring volume of learning have priority over reference to specific contents. The implications are that what might be assumed to be distinctive to formal education- the acquisition of specific knowledge- is treated as relatively unimportant. Institutions are held accountable and students assessed in terms of outcomes that are not content-specific.

The new Norwegian<sup>4</sup> curriculum reforms follow a similar trend. They

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<sup>3</sup> I am grateful to Professor Alison Wolf( Kings College, University of London) for pointing out to me the important role of Public Service Agreements and their potential influence on what counts as successful learning in school.

<sup>4</sup> I mention Norway for two reasons; one is that I have recently visited two Norwegian universities and the other because Norway has often been celebrated by English researchers as representing a model of strong educational policy making (Payne.J 2002) . My point is not to disagree with Payne but to suggest that this



are known, significantly, as **The Knowledge Promotion**(**op cit for website reference**) ; the new Norwegian curriculum is defined by five basic skills and a seven-part quality framework; each of the twelve criteria have to be reflected in the teaching of the different subjects; subject syllabuses no longer prescribe specific contents. It is this combination of basic (generic) skills and a quality framework, not the knowledge content of subjects which is built into the legislation, drives teaching, and defines what students have opportunities to learn, and how they are assessed,

A rather different example of the evacuation of knowledge, is found in the publications of the radical Portuguese sociologist, Buventura de Sousa Santos, now largely based at Wisconsin. It illustrates how the approach taken to knowledge by at least some the Left-wing critics of globalization and the role of international agencies leads to a similar evacuation of content. De Sousa Santos works are widely read in Brazil and he has played a key role in the Global Social Forum. In Brazil I have heard him spoken of as the new Paulo Freire. What he refers to as his “epistemology of absent knowledges” claims to go beyond what he sees as the ‘blindness’ of western science. He refers to it in a paper in the European Journal of Social Theory in the following terms:

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‘emptying of knowledge content’ under the guise of promoting knowledge can be found even in a country as little prone to ‘marketising’ and ‘individualising’ tendencies as Norway.

“the epistemology of absent knowledges starts from the premise that *social practices* are *knowledge practices*... nonscience-based practices, rather than being ignorant practices, *are practices of alternative rival knowledges*. There is *no apriori reason to favour one form of knowledge against another*.”(Sousa de Santos 2001)

Starting from a critique of mainstream economics, de Sousa Santos is trapped in a framework that associates epistemologies with particular social groups or world regions. The result is a concept of knowledge that equates it over-simplistically with power<sup>5</sup>, and is as empty, despite its radical rhetoric, as that of the World Bank.

### **The ‘Voice of Knowledge’**

What then might the idea of the ‘voice of knowledge’ that I have argued is increasingly absent in educational policies mean? I begin with what Moore (Moore 2007) identifies as its four elements:

It must, he argues be:

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<sup>5</sup> Of course ,knowledge is about power and ‘the powerful ‘ will always try to define what counts as knowledge. However it is not only about power; some types of knowledge *are* more reliable than others and we cannot afford to forget either aspect.

- 1. critical-** be open to revision and embody a fallibilist notion of truth
- 2. emergentist-** in recognizing that knowledge is not reducible to the conditions of its production or the activities and interests of those involved
- 3. realist-** in recognizing that the objects of knowledge of both the natural and social worlds are realities that (a) are independent of our perception of the world and (b) provide limits to how we can know about the world
- 4. materialist-** in recognizing that knowledge is produced (and acquired) in specific historically created modes of production, or in Bourdieu's terms, intellectual fields.

Knowledge, it follows, from a realist perspective and in the sense that I as an educationalist use the word<sup>6</sup>, can be differentiated from the meanings we construct to make sense of the word in our everyday lives; it is not created by learners or even by learners with their teachers; it is acquired.

Although these propositions form a sound basis for any serious enquiry into the role of knowledge in education, the terms in which they are set are too general for them to be a basis on their own, for drawing any

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<sup>6</sup> It is what I and I imagine most teachers (and parents) want their students/children to acquire at school that they will be unlikely to be able to acquire at home.

conclusions about educational and more specifically, curriculum policy. I will comment briefly on each proposition and suggest that the key underlying concept that can be derived from them and needs developing is the *differentiation of knowledge*.

**Proposition 1** refers to fallibility. The idea of fallibility or ‘openness to critique and revision’ is usually associated with the natural sciences. However it is no less important in the humanities and social sciences. Different concepts of fallibility arise from the ways in which different knowledge domains subsume the particular under the general (Joe Muller and I discuss this in an earlier paper(Young and Muller 2007). However fallibility is always understood as being ‘within a tradition or a discipline’ The dangers of breaking the link between ‘openness to critique’ and a tradition within which critique is located are well demonstrated by Anthony Kronman, the former Dean of Humanities at Yale. In his book **Education’s Ends: Why have American universities given up on the meaning of life? (Kronman 2007)** Kronman describes how after the 1960s many humanities Faculties in the USA rejected any notion of tradition and focused only on critique; this left them, he argues, open to the most extreme forms of relativism and political correctness.

**Proposition 2 refers to Emergence-** This is the idea that powerful

knowledge is the product of social conditions or contexts that do not wholly determine it. Examples might be the science laboratory or the classroom. Archives, libraries and the internet can also be conditions for the emergent properties of knowledge to be generated. However this does not take place, as is sometimes assumed, in isolation from teachers or members of other ‘communities of specialists’. These originating ‘contexts’ will leave their mark on the knowledge acquired and produced in them. However what makes powerful knowledge’ powerful is its independence or autonomy from the specific contexts of its origin. Let’s take an example; the English chemist Robert Boyle needed to be wealthy enough to build the laboratory on his estate in which he discovered what became known as Boyle’s Law. However today’s aircraft designers do not need to read Steven Shapin’s account of the gentry culture (Shapin 1995) of which Boyle was a part to understand and apply his Law about how gas volumes change under pressure.

Emergence is a less straightforward idea in the social sciences. For example, Max Weber’s concept of ideal types has emergent properties which explains why it remains fruitful to this day. However only a few sociologists will be familiar with the debates Weber had with the Marxists in the German Social Democratic Party which led him to formulate the idea. Contemporary sociologists could well gain additional sociological insights into Weber’s ideas by reading Marianne Weber’s

account of his life in ways that would not be true for physicists reading Shapin's account of Boyle's life, however interesting they might find it.

**Proposition 3** refers to the *real* basis of knowledge; in other words that our claims to knowledge are not just claims; they say something about the world that is not dependent on how we conceive of it. If the sociology of knowledge is to say anything about the curriculum it must provide a theory that distinguishes between knowledge and non-knowledge-whether this is expressed as experience, opinion, belief or common sense. Likewise, if the nature of the objects of knowledge(our theories) limits what we can know about reality, we need to know how they are differentiated between different domains when we come to make decisions about the curriculum.

**Proposition 4** refers to the *materiality* of knowledge production and acquisition- that these processes do not take place anywhere but in particular social contexts with specific rules and forms of organisation. This idea of the materiality of knowledge production points to the importance of research into different forms of specialist knowledge communities and their role (and often their lack of role) in the design of curricula. In the UK, vocational education programmes preparing students for different occupational fields vary widely in how they

interpret their knowledge base. Much of this variation can be explained in terms of the different roles that professional associations have in the design of programmes at pre- or non-professional levels<sup>7</sup>.

The conclusion that I draw from this brief discussion of Moore's four propositions about knowledge is that they have to be developed further. One way of doing this is through the idea, implicit in each proposition, that knowledge is socially differentiated. Section 3 draws on the French philosopher, Gaston Bachelard's historical epistemology to present an way of developing this idea.

### **The social differentiation of knowledge**

The idea that there are real structured differences between types of knowledge that are not dependent on our perceptions- in particular between scientific and non-scientific knowledge- lies at the heart of the work of Gaston Bachelard, the French philosopher of science. In the UK his work has been largely associated with Louis Althusser's flawed attempt to construct a 'scientific' Marxism. However, and here I draw largely on Christopher Norris's account, this is to miss the broader importance of Bachelard's work. Norris (Norris 2000) points out,

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<sup>7</sup> One of the most successful programmes of vocational education in England (in terms of progression both to employment and to higher education and professional level programmes) is that developed by the Association of Accountancy Technicians(AAT). A major reason for this is the key role played by the professional association of Chartered Accountants(The Institute of Chartered Accountants in England and Wales) with which the AAT is associated.

rightly, I think, that Althusser, presumably for political reasons, misinterprets Bachelard and relied on

“a misplaced ‘scientific’ rigour that seeks to emulate the physical sciences in fields where different criteria apply”

This habit, Norris argues, gives rise to “various kinds of false analogy and wire-drawn metaphors” which find no justification in Bachelard’s own work. Furthermore, Bachelard’s epistemology is more historically grounded than that of critical realists such as Bhaskar; it focuses on distinct episodes in the history of the physical sciences. For this reason it is more useful for clarifying what the ‘differentiation of knowledge’ might mean in sociological terms.

The following points are a necessarily over-simplified summary of the aspects of Bachelard’s theory of knowledge which have particular relevance for the concerns of this paper; they are drawn largely from Norris’s discussions<sup>8</sup>:

- Bachelard establishes a basis for distinguishing science from pre-(or non)science that has parallels with Lakatos’s distinction between ‘progressive’ and ‘degenerating’ research programmes.
- he has a theory of how knowledge progresses from ‘less efficient’

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<sup>8</sup> A much more detailed account of Bachelard’s epistemological theory is given by Mary Tiles (Tiles 1984) and by Christina Chimisso(2001) who locates her account in the context of Bachelard’s work as a whole.



to 'more efficient' concepts through the process of "conceptual rectification and critique"

- he provides examples from the history of science of how knowledge 'progresses' by tracing the discontinuous development of ideas such as the 'atom' from the Greeks 'atomism' to modern atomic theory. In each case he shows how ideas are transformed from being largely metaphorical into increasingly precise and testable 'scientific' concepts.
- he recognizes that a theory of knowledge must begin from 'the current best state of knowledge in the field concerned' - in other words where a discipline is currently at.
- he proposes a methodology for distinguishing between two kinds of historical enquiry which Norris argues are often confused in contemporary discussions- *histoire sanctionnee*-the history of the growth of science ( this focuses on those early steps, like Lavoisier's discovery of the role of oxygen in combustion, which led to further advances) and *histoire perimee*- the history of past scientific beliefs( those which were later rejected as leading nowhere. One of Bachelard's examples in this case was Priestley's attempt to explain combustion with the idea of phlogiston .
- his historical epistemology is underpinned by a trans-historical set of principles associated with rigour, clarity, conceptual precision and logical consistency.

None of these proposals can be easily applied to the social sciences<sup>9</sup> and I am not aware of any attempt by Bachelard to extend his theory beyond the physical sciences<sup>10</sup>. However his focus on the *historical* conditions for the growth of knowledge in any discipline does not imply that it must be restricted to the physical sciences or that the idea of a historical epistemology must take physics or any particular science as its model. Also for Bachelard concepts are not just theoretical propositions; they are simultaneously embedded in technical and **pedagogic** activity- the material conditions for producing them. Thus he opens the possibility of a realist account of the differentiation and growth of knowledge and the role of educational institutions.

### **Approaches to the social differentiation of knowledge- Durkheim, Vygotsky and Bernstein**

This section takes further the idea of knowledge differentiation by drawing briefly on the three theorists who focuses specifically on the differentiation of educational knowledge- Durkheim and Vygotsky and Bernstein. Their analyses form the basis, I suggest, for a research programme into the differentiation of educational knowledge as the

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<sup>9</sup> Althusser's failed attempt to apply Bachelard's proposals to Marxism as a theory of capitalism and his use of Bachelard's idea of an 'epistemological break' are an illustration of the difficulties.

<sup>10</sup> George Canguilhem, who succeeded Bachelard at the Sorbonne, developed an influential historical epistemology with a focus on biology. However I have not considered his work in this paper.

principles for a theory of the curriculum. The significance and range of work of the three theorists is only touched on briefly here. I have explored their ideas in more detail elsewhere (Young 2007).

### *Durkheim*

As a sociologist rather than a philosopher of science, Durkheim's theory of knowledge is broader than Bachelard's; he does not limit himself to the physical sciences and he does not differentiate between scientific knowledge and knowledge in any broader sense. The differences that he identifies between knowledge and experience can be traced back to his early rejection of Kant's transcendentalism and to the concepts- 'sacred' and 'profane'- that he developed in his studies of religion in primitive societies. Durkheim initially used the sacred/profane distinction to describe the separation of religion and everyday life that he found in primitive societies. However the 'sacred' and the 'profane' became, for Durkheim, a basic distinction at the heart of all societies, even those that have become largely secularized. He saw the distinction as a form of social organization that was basic to science and intellectual thought; hence his reference to primitive religions 'proto-sciences'. Without the conceptual and social moves from the everyday world of survival to the sacred world of totemic religion that those early societies made, Durkheim argued, no science and no knowledge, and indeed no society, would be

possible.

### *Vygotsky*

Entering adult life and beginning his short career at the start of the Soviet Revolution, Vygotsky inevitably focused on the immediate problems facing teachers in the new society. His primary concern was with how teachers could help students to develop the higher order concepts that they would not have access to in their everyday lives. Like Durkheim, his theory was about the differentiation of knowledge and he also relied on a binary distinction- between two kinds of concepts- the theoretical (or scientific) and the everyday. The task of the curriculum- and schooling more generally, for Vygotsky, was to provide students with access to theoretical concepts in all their different forms- from history and literature to the sciences and mathematics. Furthermore, he saw that access to higher order concepts was not a simple one-way process of transmission but a complex pedagogic process in which a learner's everyday concepts are extended and transformed by theoretical concepts. From the point of the role of knowledge in education, the implications of Vygotsky's ideas are most clearly expressed in the work of the Russian Vasily Davidoff and his ideas of 'kernel knowledge' and learning as moving beyond the abstract and gaining a grasp of the concrete 'real' nature of things.

## **Bernstein**

Bernstein (Bernstein1971: 2000)<sup>11</sup> took Durkheim's ideas of knowledge differentiation further in a number of important ways. Here I will only refer to three brief points which focus on the issue of knowledge differentiation.

- With his concepts of 'classification' and 'framing' Bernstein developed Durkheim's idea of boundaries as the key social category separating types of symbolic meanings. He used these concepts to show how boundaries in education play a major role in the development of learner and teacher identities.
- Bernstein distinguished two types of educational boundary that are crucial for any curriculum theory-those between knowledge domains and those between school and everyday knowledge. He analysed the implications of both these types of boundary being blurred or dissolved.
- Bernstein drew on Durkheim's concepts of the 'sacred' and the 'profane' and his argument that the 'sacred' represented a kind of 'proto-science' to develop a distinction between forms of the 'sacred' which he expressed as vertical and horizontal discourses. In his last work (Bernstein 2000) he began to analyse the curriculum implications of these distinctions.

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<sup>11</sup> I have only referred to two of Bernstein's many publications here.

## **Forms of knowledge differentiation and the curriculum**

In this section I want to comment briefly on *five* aspects of the social differentiation of knowledge that can be derived from the ideas of Durkheim, Vygotsky and Bernstein and suggest that they could provide the basis for a theory of the curriculum that is based on the idea of the ‘voice of knowledge’. Although aspect each has a distinct focus, there are overlaps between them and further conceptual clarification could no doubt reduce the number of types listed and define them more precisely.

- *the fundamental difference between knowledge and experience –*

Without this difference, which lies at the heart of Durkheim’s social theory of knowledge, the idea of a curriculum is impossible. This has been demonstrated by the failed attempts of successive generations of progressive and radical educators to collapse the categories and construct an experience-based curriculum. The problems of the South African and Australian outcomes –based curricula, the English child-centred curriculum that followed Plowden and the more radical Queensland-based ‘new basics curriculum’ are among the many examples. Less publicized, but in social justice terms, even more damaging is the extent to which curricula based on the work experience of young people have

been the basis of a wide range of vocational programmes which claim to offer educational possibilities to slow learners and those disaffected from schooling.

The conceptual separation of knowledge from experience was Durkheim's major point in his most explicitly philosophical book **Pragmatism and Sociology (Durkheim 1984)**. In that book he praised William James and the pragmatists for bringing philosophical questions about truth back to where he felt they should be located- in social life (or as he expressed it, in society) and not in academic philosophy. However he criticized James and the pragmatists for having an undifferentiated concept of the social and society and therefore at least implicitly equating it with experience. For Durkheim experience is a powerful force but inadequate as an epistemological principle and no basis for reliable knowledge or for the curriculum.

- ***the differences between theoretical and everyday knowledge***

This is a narrower and more concrete expression of the first difference. If these differences are dismissed or blurred, it becomes increasingly difficult to make reliable decisions about what to include and exclude in the curriculum or indeed to say what formal education is for. There are two possible consequences

of blurring the distinction between theoretical and everyday concepts. The first is that many kinds of knowledge are included in the curriculum, for broadly political reasons, which schools may not provide the conditions for acquiring- sex and moral education and employment-related skills are examples. The second consequence is that the contents that may be the condition for acquiring theoretical knowledge are excluded or replaced (as in the recent proposals for the secondary science curriculum in England). Thus on the grounds of popular relevance or pupil interest, the opportunities that students have for acquiring systematic theoretical knowledge that can not be acquired elsewhere are restricted.

Without a specification of the differences between theoretical and everyday concepts as well as a focus on the relationships between them that go beyond the moral or political standpoints of those involved, curriculum decisions are inevitably reduced to politics.

- *the differences between knowledge domains*

These differences refer to horizontal aspects of the intellectual division of labour in Durkheim's terms and what Bernstein describes as the classification of educational knowledge. A theory of knowledge differentiation presupposes that domain differences are not arbitrary but in some degree are the product of Bachelard's



historical processes of ‘rectification and critique’. An understanding of the extent to which domain differences such as those between disciplines and subjects have an epistemological as opposed to a merely conventional basis is crucial to the analysis of the links between domain boundaries, learner identities, and learner progress and to addressing the debate around multi-, trans- and inter-disciplinarity and the limits of modularization and student choice.

- *the differences between school and non-school knowledge*

These differences follow from Vygotsky’s distinction between theoretical and everyday concepts and my interpretation of Bernstein’s concept of the framing of educational knowledge. However the differences between school and non-school knowledge have a specific importance in that they indicate why it is important to distinguish between the *curriculum*- as the conditions for acquiring new knowledge, and *pedagogy*- which refers to the activities of teaching and learning involved in the process of acquisition. This is a distinction that both Durkheim and Bernstein were somewhat ambiguous about. Both, but explicitly Durkheim, relied on an over-deterministic transmission model of education which played down the active role of the learner in transmission and the extent to which the *recontextualisation* of

school knowledge lies at the heart of pedagogy<sup>12</sup>. Vygotsky, on the other hand was more sensitive to the complexity of pedagogic issues, but was less explicit about exactly what he meant by theoretical (or scientific) concepts. This maybe why the socio-cultural and socio historical activity theories of learning which locate their origins in Vygotsky's work have largely neglected the role of knowledge in formal education. From the perspective being developed in this paper, while pedagogy necessarily involves the teacher in taking account of the non-school knowledge that her/his students bring to school, the curriculum explicitly does not.

## **Conclusions**

This paper began by noting the emptying of the concept of knowledge in the increasingly globalised debates about education and the knowledge economy and explored some of the implications of this trend in contemporary educational policy. In endeavouring to recapture knowledge as lying at the heart of the goals of all education, the idea of the 'voice of knowledge' does not divorce knowledge from knowers and hence from thinking and judgment. Rather it offers a counter to this

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<sup>12</sup> Bernstein was the originator of the concept of 'recontextualisation'; however he was more concerned with its role in the structuring of pedagogic discourse than as a way of conceptualising pedagogy.

divorce in much contemporary writing where thinking and learning are treated as if they were processes that can be conceptualised as educational goals independently of what the thinking and learning is about.

I have argued that the idea of the structured differentiation of knowledge is central to a more adequate conceptualization of its role in education. The paper focused primarily on the differentiation of school and non-school knowledge and discussed some of the dimensions of this differentiation and their educational significance. The growth of knowledge, whether in a subject like physics or history, or in an occupational field like engineering or financial management, and hence the opportunities for acquisition open to new learners whatever their age, will depend on the continued process of 'rectification and critique', to return to Bachelard's apt phrase, by the various specialists involved. Making this process explicit is the task of a realist sociology of knowledge in relation to the curriculum, if the 'voice' of knowledge' is to shape educational policy and knowledge is not to continue to be an empty category. There is much to do.

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