Knowledge, the Future, and Education(al) Research: A New-Millennial Challenge

Bill Green
Charles Sturt University

Introduction: Re-disciplining Education?

In contemplating research futures for Education, it is important not simply to be acutely and critically aware of what constitutes the field's present moment, but also of how its past trajectories and pathways, its *traces,* linger and leave their marks in how we think our way, now, into what might be. That is, the enterprise must be understood, right from the outset, as profoundly historical. Any enquiry into research futures must necessarily embrace history, in the fullest, most comprehensive, and most dynamic sense. What is Education now, as a field of academic-intellectual inquiry, how has it been formed, and what is it becoming? That question becomes all the more significant when consideration is made of how it will maintain and renew itself – which is to say, how newcomers to the field will be prepared to take it into whatever futures present themselves. Crucial to that is the issue of *knowledge*: what knowledge base is appropriate for and available to those who will enter into the field, and carry it forward? What is Education's knowledge project?

In that regard, it is worth giving some careful thought to the nature of Education itself, as it has emerged to date and as it is likely to evolve and change. Historically the field has been closely, even organically, tied to the institution of schooling, as a distinctive cultural and educational technology. That may not always be the case, or rather the relationship with schooling may well change. Indeed, it is highly likely that schools in their current-traditional form will have to change, with new debates with respect to *de*-schooling and *re*-schooling therefore needing to be opened up, something that has been mooted for some time now (e.g., Green & Bigum, 1998). What, then, is the *object* of Education? What kind of knowledge-field is Education? What knowledge is it organised around and addressed to? How is that knowledge to be characterised? What kind of knowledge is it? With what other knowledges and knowledge fields is it aligned or has an affinity? How does it fit within the disciplinary and symbolic hierarchy of the University? Questions such as these compel attention to the research interests and orientations of those working within the field, and also how they are to be trained and socialised.

In this regard, Whitty (2006) argues the value of diversity in research practices and perspectives, observing that "we should not be cajoled into accepting that the only research in education that is worthwhile is research that has immediate pay-offs for policy and practice" (Whitty, 2006, p. 165). "There needs to be a place for 'blue skies' research", he writes, "which is significant in disciplinary terms but whose impact on policy is an unpredictable bonus that cannot reasonably be made a condition for funding" (Whitty, 2006, p. 171). This means allowing for research across a broad spectrum – for researching differently *in*, *for* and *about* education, in its various sites and forms of realisation. Hence research and scholarship that draws from the arts and humanities, as in curriculum inquiry (e.g., Pinar, Reynolds, Slattery, & Taubman, 1995; Pinar, 2004; Gough, 2009), and not just from the social sciences, is to be welcomed, and adequately supported. This is an argument also for the continuing value of work in the so-called "disciplines of education" (Lawn & Furlong, 2009), and in what is called educational theory and philosophy, even though this is increasingly difficult in recent times. Hence Whitty makes a useful distinction between what he describes as "studies of education" and "studies for education", and suggests a further distinction between "education research" and "educational research", with the former referring to the broader field of inquiry while the latter is used for "work that is consciously geared towards improving policy and practice" (Whitty, 2006, p. 172-173). The need for and value of distinctions and discriminations such as these is what is being signalled here in the term education(al) research. This in turn clearly has implications for the knowledge question, as it might be called, which is at issue in this paper.

In a recent paper, Lawn and Furlong (2009) explore what might be called the de-disciplining of Education – that, is, not only the decline or effectively the eclipse of "the 'foundation' disciplines of philosophy, sociology, psychology and history of education" (p. 542), but also a sense of increasing uncertainty with regard to "the discipline of the discipline" (Bridges, 2006, p. 259). Referring specifically to the United Kingdom, they observe a history in which "[f]rom the 1920s to the 1950s, the main discipline in education was psychology", after which "[f]rom the 1960s to the 1970s, the disciplines grew in range and scale", with "[h]istory and philosophy [being] the most active disciplines", and educational sociology eventually comes into prominence (Lawn & Furlong, 2009, p. 545). However, this was relatively short-lived: "At an institutional level, by the 1980s, the position of the disciplines began to be seriously undermined" (Lawn & Furlong, 2009, p. 546). This was in part due to a variety of challenges to "the disciplinary project" (Lawn & Furlong, 2009, p. 550), ranging from increasing interest in new theoretical resources and perspectives (e.g., poststructuralism, cultural studies, feminism, etc) to a growing (albeit at times ambivalent) emphasis on the practical (Lawn & Furlong, 2009, p. 546). What marks the period in question, and what continues to haunt the scene, is what is described as "post-disciplinarity" (Bridges, 2006, p. 260). This, I suggest, is to be understood, not as

the refusal or denial of disciplinarity, but as its problematisation. The significance of this account, for me, is that it highlights how we are to see the question of knowledge as a critical feature of the history of the present – a moment that includes, among other things, the development of a new National Curriculum for Australia.

There are three distinct but related aspects of the knowledge question that must be taken into consideration here, then. Firstly, it is relevant to highlight the issue of *educational theory*, or that body of theoretical work that is generated in the practice of educational research. This is most commonly associated with research in the educational disciplines, broadly conceived, located within the epistemic community of the social sciences, although there is a case to be made that greater attention should be given to the humanities with regard to Education's framing (Bullough, 2006). Secondly, it is to refer to the *school-subjects and the school curriculum*, or subject-matter (Deng & Luke, 2008), which similarly involves persistent questions of disciplinarity, or disciplinary knowledge. Thirdly, there is the issue of *teacher education*, and professional education more generally. The question to be asked here is to what extent disciplinary knowledge – whether understood within the traditional terms of reference of the educational disciplines or as referring more to the hegemonic disciplinarity of the modern (research) university – is adequate to the professional practice knowledge challenge of teacher education. In this regard, Lawn and Furlong (2009, p. 548) point to the "increasing recognition that there was much more to professional knowledge than had been traditionally captured in disciplinary based theory". While I cannot hope to do justice to this range of concerns and foci in this paper, in what follows I shall endeavour to indicate something of what needs to be taken into consideration in entering into such territory.

The Knowledge Question in Education(al) Research

The question of knowledge is central to educational theory and practice alike. Classically, what is widely regarded as the fundamental curriculum question is *What knowledge is of most worth?* – usually attributed to Herbert Spencer, writing in the latter part of the 19th century. That question is in turn commonly and characteristically rendered, somewhat transformed, as *What should the schools teach?* One hundred years later, Basil Bernstein described curriculum as a key message-system for schooling, along with pedagogy and assessment, with curriculum understood in this context as referring in a relatively commonplace way to educational knowledge, or rather, "what counts as valid knowledge" educationally (Bernstein, 1977, p. 85).

What is immediately noticeable is that these are all *normative* formulations: they refer to what ought to be engaged with in classrooms, schools and educational systems, and to what should be counted as worthwhile educational knowledge. This is a

reminder that, again drawing from Bernstein (1977, p. 83), "[h]ow a society selects, classifies, distributes, transmits and evaluates the educational knowledge it considers to be public, reflects both the distribution of power and the principles of social control". To this we can add, from Michel Foucault (1981, p. 52), the following: "[I]n every society the production of discourse is at once controlled, selected, organised and redistributed by a certain number of procedures whose role is to ward off its powers and dangers, to gain mastery over its chance events, to evade its ponderous, formidable materiality". What this entails, of course, is the articulation of knowledge, discourse and power. What should also be noted, here, is the manner in which each of these statements is realised, which is especially significant when it is recalled that both were originally produced around the same time. To refer to discourse in this context is to evoke and also acknowledge what has been variously described as a linguistic or "textual turn" in and across the human sciences, as a key moment in cultural and intellectual history. The association of knowledge and power, as "power-knowledge", is a further gesture towards what has arguably become something of an orthodoxy, and due recognition of an important insight in post-positivist educational inquiry. But there is more that must be said about this, as recent educational-sociological scholarship has argued (e.g., Young, 2008a). That is, there is a risk in such formulations that the ineluctability of power is given priority over the specificity of knowledge. This is clearly something to be debated, in considering future directions in education(al) research.

A further matter concerns the question of the future(s) of knowledge, or the manner in which knowledge as such is being transformed by the forces for change in the (post)modern world. I am referring here to the impact on knowledge of new technologies and digital practices, and relatedly, to their impact on knowing and learning. It is over four decades now since Jean-Francois Lyotard (1984, p. 3) produced his famous report on knowledge, observing at the outset that "the status of knowledge is altered as societies enter what is known as the postindustrial age and cultures enter what is known as the postmodern age". Whatever debates and doubts might still be in play regarding the status of the Postmodern, Lyotard's insights and arguments remain pertinent. His concern is with the effects of what he describes as widespread computerisation, certainly with regard to "the condition of knowledge in the most advanced societies" (Lyotard, 1984, p. xxxiii) – that is to say, the West. As he writes, "[t]he nature of knowledge cannot survive unchanged within this context of general transformation" (Lyotard, 1984, p. 4). He points to two principal functions of knowledge, "research" and "the transmission of acquired learning", both of which he sees as changing in quite fundamental ways. An important consideration here is the acceleration in the sheer pace of knowledge production, and relatedly, the proliferation of knowledge(s), or the sharp and indeed escalating increase in the volume and quantity of knowledge.

Moreover, as Lyotard argues, in such conditions, knowledge is necessarily, unavoidably, uncoupled from subjectivity. He points to "a thorough exteriorization of knowledge with respect to the knower, at whatever point he or she may occupy in the knowledge process" (Lyotard, 1984, p. 4). Hence one representative statement from what would seem, once again, the watershed period of the 1970s can be seen as symptomatic:

> It is a confusion of everyday thought that we tend to regard "knowledge" as something that exists independently of someone who knows. "What is known" must in fact be brought to life afresh within every "knower" by his [*sic*] own efforts. (Department of Education and Science, 1975, p. 50)

Yet, making appropriate distinctions between knowledge, knowing and knower is precisely what now needs to be done in and for education[1]. This is partly to redress what some now see as a widespread and even systematic undervaluing of knowledge *per se*, in an excess of constructivism. Yet the value of maintaining a sense of how knowledge is mobilised in and through pedagogy as well as in research is surely also indisputable, along with due regard for knowledge's monumentality. For Lyotard, what can be anticipated is an increasing focus on commodification and exchange, and on *performativity* – "the optimization of the global relationship between input and output" (Lyotard, 1984, p. 11). Rather than being linked inextricably to the formation of character, individually and (as it were) nationally, knowledge proliferates and circulates, effectively externalised, with selves realised only as relays, "always located at a post through which various kinds of messages pass" (Lyotard, 1984, p. 15). Subjectivity is thus evacuated from knowledge – knowledge becomes a practice without a subject. A further distinction is introduced, in effect: between knowledge and information. Or rather, knowledge *becomes* information, and hence archival. This is what is at issue in Lyotard's concern about digitalisation: knowledge "can fit into the new channels, and become operational", he writes, "only if learning is translated into quantities of information". As he continues:

> [A]nything in the constituted body of knowledge that is not translatable in this way will be abandoned and … the direction of new research will be dictated by the possibility of its eventual results being translatable into computer language. (Lyotard, 1984, p. 4)

That is, the general installation of a digital, binary logic into culture and economy alike is conducive to a new social order of performativity that must be recognised as, at the very least, *non-neutral* (Idhe, 1990). This is surely one aspect of that which has come to be known as neoliberalism, now widely understood as a dominant feature of Education.

Knowledge and Disciplinarity

One way of (re-)engaging the knowledge question in education(al) research is demonstrated in recent scholarship in the sociology of education. Its thesis is captured neatly in the title of Michael Young's (2008a) recent book – *Bringing Knowledge Back In*. This would appear a growing theme across a range of work, in fact: a sense that knowledge has been displaced from its rightful location at the very heart of the educational enterprise, in schools and universities alike, classroom pedagogy and educational theory. Referring more specifically to language and literacy education but certainly with a wider implication, Freebody, Maton and Martin (2008) argue for "reinstating the teaching of knowledge … at the forefront of considerations of educational theory and practice" (p. 188), and indeed suggest that knowledge as such has effectively "disappeared" (p. 190). Yates and Collins (2008, p. 14) observe that work to date on the National Curriculum suggests "some return to a focus on discipline knowledge as a starting point". Elsewhere, in construing "a map of curriculum policies and change across Australia in the period 1975 to 2005", they point to a reduced emphasis on knowledge *per se* (Collins & Yates, 2009, p. 125). They describe this as a "broad turn away from content and towards skills" (Collins & Yates, 2009, p. 134), and as "a strong shift … from an emphasis on knowing things to being able to do things", further observing that they were struck by "how rarely knowledge itself comes into the frame of the talk about curriculum" (Yates & Collins, 2008, p. 8). Subsequently they refer more strongly to "the absence of knowledge in Australian curriculum reforms" (Yates & Collins, 2010, p. 89).

The significance of these observations and claims lies, in part, in the connections to be made with recent arguments by a group of educational sociologists, separately and collaboratively, about the need to reckon knowledge more squarely and centrally into curriculum and policy debate, thereby redressing what they now regard as an unfortunate road taken since the 1970s, in socially-critical educational studies and curriculum inquiry alike. Young is perhaps the most well known figure, and certainly a leading light, not only for his undeniably substantive scholarship but also because of his role historically in the development of educational inquiry since 1971 and the publication of *Knowledge and Control* (Young, 1971), particularly given what would seem his recent now much recounted "Pauline conversion". With his colleagues and co-workers, Rob Moore (e.g., 2000, 2007; Moore & Young, 2001) and Johan Muller (e.g., Muller, 2000; Muller & Young, 2002; Young & Muller, 2010), together and separately, Young has sought to introduce a new "social realist" educational research program, informed significantly by Bernstein and Durkheim, among others (Young, 2003, 2008a, 2008b). At issue here is a particular understanding of disciplinarity, and indeed the re-assertion of disciplinary knowledge as crucial to curriculum and schooling. The social realists are especially critical of so-called postmodernism, seeing in this work not only signs of relativism and even nihilism – now an all-too-familiar criticism – but also little, if any, use-value in furthering educational policy or practice[2].

Risking over-simplification, the argument can be summarised as follows[3]. There is a need to re-assess the nature and status of knowledge, whereas previously, and indeed currently, knowledge has been either reduced to its production and circulation, and to the interests and perspectives of its users, or else underestimated and even misrecognised in its material specificity. This means that a need and indeed an opportunity now exists to reclaim knowledge as such, and to re-assert its positivity and its priority. Young (2008a, p. 19) describes the task as one of "bring[ing] knowledge back into the debate … without denying its fundamentally social and historical basis". What he seeks is what he calls "a 'social realist' view of knowledge" – "it is the social nature of knowledge that in part provides the grounds for its objectivity and its claims to truth" (Young, 2008a, p. 24). Such a view is predicated on the claim that "a social theory [of knowledge] can be the basis for claims to truth and objectivity by identifying the distinctive 'codes and practices' through which they are produced", and by being capable of "transcend[ing] the historical conditions of its production"; it is moreover properly and appropriately sensitive to what might be called "knowledge-constitutive interests", both external and internal, with the latter warranting much more attention than has hitherto been the case; and finally it understands knowledge as "'rarely if ever' monolithic" (Young, 2008a, p. 82). Later this position is described as working towards and with an understanding of knowledge that "transcends specific social practices, interests and contexts" (Young, 2008, p. 82), while nonetheless retaining its own social and epistemological specificity. While there is no sense that such a view eschews the political, it is wary of what is described as "over-politicisation" when it comes to knowledge, and with regard to "educational issues" more generally (Young, 2008a, p. 112). Even so, the overall aim, I take it, is "to recover an epistemologically powerful theory of knowledge for socially progressive purposes" (Moore, 2007, p. 26).

On disciplinarity

It would appear, then, that what needs to be examined further here is the very issue of knowledge *as* disciplinarity[4]. This is a complex matter. It reaches back to the establishment of the modern research university, at the outset of the 19th century. Usually linked to von Humboldt's reforms at the University of Berlin, a parallel history is traced of the rise of a new logic and culture of disciplinarity, and the birth of the modern disciplines. There are various accounts that might be made in this regard, from the triumphal to the revisionary (e.g., Lee & Green, 1997). Understanding what is at issue and what is at stake is important in thinking about research futures in and for Education, in part because there has been a long argument as to whether or not Education is indeed a discipline, at least in the traditional, orthodox sense. Social-realist interventions curiously bypass that argument, however, perhaps because they are themselves located within one of the field's foundation disciplines (Bridge, 2009) – that is, the sociology of education – as well as drawing explicitly on mainstream sociology of knowledge, and thereby have an arguably recognisable disciplinary authority. All

the same, Education and Sociology are both relatively recently established academic disciplines, or university fields of study, and both in various ways have aspired to scientificity. So what needs to be understood about disciplinarity?

The discipline has been described as "the basic organizational unit of intellectual life in the academy" (Anderson & Valente, 2002, p. 1). Introducing a set of studies in "the formation of disciplinary knowledge during the last third of the nineteenth century", which they suggest was a particularly generative period, Anderson and Valente (2002, p. 2) argue the need for greater attentiveness to "the historical dimensions of disciplinarity" – how disciplines as such emerge, are constructed and contested, change, renew themselves, and sometimes wither and disappear. This is a history of just over two hundred years, in formal terms, and yet as a material-discursive practice it would seem now effectively naturalised. "[W]e have come to see these circumstances as so natural that we tend to forget their historical novelty and fail to imagine how else we might produce and organize knowledge" (Messer-Davidow, Shumway & Sylvan, 1993, p. vii). More recently, there have been a number of challenges in this regard, ranging from work produced in fields such as poststructuralism, feminism and cultural studies to new lines of inquiry in science and technology, including work on changing modes of knowledge production and on "transdisciplinarity" (Gibbons et al., 1994), partly in response to global neoliberalism and new world orders of technocultural development.

Messer-Davidow and her colleagues (1993) have provided what is still one of the most succinct and generative accounts of disciplinarity, as I see it. In indicating that their primary object of study is "neither the knowledge produced by individual disciplines nor a discipline itself", they signal their interest in "what makes for disciplinary knowledge as such: discipline-ness, or, as we shall call it, disciplinarity […]". "Put differently", they write, "our concern is with the *possibility conditions* of disciplines" (Messer-Davidow et al., 1993, p. 1-2) – and hence of disciplinary knowledge(s). They go on to trace what this might involve, in introducing a series of historical and critical studies of disciplinary formation and change, in fields including accounting, economics, literary studies, art history, physics and medicine. They highlight the *work* that goes on in this regard, the procedures and protocols of classification and differentiation, the socializing practices, the "boundary-work", the delimitations of authority. What bears highlighting in this history, here, is the particular significance of education, or pedagogy (Hoskin, 1993; Lee & Green, 1997), although the disciplinary status of Education as a distinctive field of inquiry remains a matter of contention. Indeed, it may even be that, as Bridges (2006, p. 262) observes, "the containment of research programmes within disciplinary boundaries, especially in fields such as education, which require multidisciplinary approaches, is unhelpful". Nonetheless, it remains important to insist on the value of maintaining a sense of "the discipline of the discipline", in Bridges' terms, and hence on education(al) research as a disciplined field of inquiry.

As I see it, this is consistent with arguments such as those of Moore (2007), and others, in referring to disciplinary knowledge as socially and cognitively authoritative, precisely *because* it emanates from disciplines as historically established material-discursive technologies of knowledge production and legitimation. Disciplines are by no means arbitrary, or at least their arbitrariness is grounded in convention and agreement. Hence Moore (2007, p. 33) refers to "knowledge-producing procedures", and to knowledge as "the emergent product of the collective organisation of knowledge-producing social practices" (Moore, 2007, p. 35-36). The social-realist program might be seen, then, as predicated on the *re*-valuing of disciplinarity and of disciplinary knowledge(s), at a time when these are seen as under threat, or at least in question. But it might also be the case that the program is focused on a particular, partial form of knowledge (and its attendant social relations and practices), rather than on knowledge more generally, or knowledge in its full range of possibility. Disciplines are appropriately described as "social fields of practice comprising relatively formal structures of knowledge and practices, and actors who share interest and norms (whether explicit or tacit) of knowledge production and communication" (Freebody et al., 2008, p. 191). As such, they are important, and necessary – but, arguably, not sufficient. What other knowledges are possible outside of the logic and culture of disciplinarity, as understood within these terms of reference and deference?

Thinking Knowledge Differently?

How might we begin to work towards a better or more comprehensive, flexible understanding of knowledge? This requires, as much as anything else, taking into account the need to distinguish more carefully between *research* knowledge and *pedagogic* knowledge, or between those knowledges that pertain to academic disciplines (including Education) and school subjects respectively. While focusing on "subject matter" in curriculum work, Deng and Luke (2008) provide an overview account of the issues in question, suggesting the value of starting from

> a pluralist premise about the diversity of knowledge, the historical and epistemological framings of knowledge, and the weighing and debating of concrete educational consequences of each for different communities and cultures. (p. 70)

They outline "three alternative notions of knowledge – disciplinary, practical, and experiential", which they describe as "constitut[ing] analytically distinctive, though not practically separate, modes of human knowledge", while acknowledging that "[t]here are, of course, other ways of conceptualizing knowledge or ways of knowing" (Deng & Luke, 2008, p. 69). That is, they work within a superordinate logic of *difference*, rather than one of identity, with specific regard to the knowledge question. This is an

important stance, and one that arguably opens up debate rather than closing it down, or limiting it to a single track. In what follows, I want therefore to explore some of the implications and challenges, as well as opportunities, which follow from adopting such a view.

As Deng and Luke argue, so-called disciplinary knowledge is one of several conceptions of knowledge that needs to be taken into account. Organised as it is by the logic of disciplinarity, it characteristically "construes knowledge in terms of canonical academic knowledge contained in various intellectual disciplines" (Deng & Luke, 2008, p. 69). Knowledge of this kind is indeed powerful and enduring, but it is neither neutral nor impartial; rather, it must be recognised as an exemplary form of *power-knowledge*. It is this (hierarchical) form of knowledge that pervades institutionalised education, or the modern(ist) project of schooling. Yet "[t]here are serious problems in the doctrine of disciplinarity", as Deng and Luke (2008, p. 76) write, noting "two decades of feminist, postcolonial and postmodern theory" (p. 80). As they assert, "all theories of knowledge and claims to know are historically and culturally situated" (p. 70). This position is at odds, clearly, with the social-realist argument, at least in its hardline forms, and moreover it appears unlikely that a reconciliation[5] can be brokered between them.

For example, much has been said in the recent debate about the problematic status of standpoint (and voice) theories when it comes to thinking about research and knowledge, curriculum and schooling. For me, however, feminist work such as that of Donna Haraway remains a crucial reference-point. Her account of "embodied objectivity" and "situated knowledge", and more generally of what she calls "the 'science' question in feminism", is clearly pertinent to what can analogously be labelled the knowledge question in education(al) research. Her argument, as she writes, is "for situated and embodied knowledges and against various forms of unlocatable, and so irresponsible, knowledge claims" (Haraway, 1991, p. 191). Hence it is as much an ethical argument as a political one. This is sometimes overlooked in subsequent debate and criticism, as is her assertion that "[t]he goal is better accounts of the world, that is, 'science'" (Haraway, 1991, p. 196) – to say nothing here about her unequivocal stance on relativism. It is difficult to see this position at odds with that of Moore (2007), for instance, in his insistence on the thesis of "a genuine (if always conditional and relative) autonomy and specificity to knowledge" (p. 37), and even his view that "[s]ome knowledge, or ways of producing knowledge, simply are better than others" (p. 39).

It would appear, moreover, that the debate itself – and hence the re-assertion of the (modernist) logic of disciplinarity – is markedly Eurocentric, or even quintessentially Western. This is certainly likely to be a contentious claim, especially given the programmatic extension of the social-realist argument to countries such as South Africa

(Hugo, 2010). But it may serve to engender a certain caution when it comes to assessing the truth-claims of such an argument, or its politics. Raewyn Connell's recent work on what she calls "southern theory" is apposite here, if only because the social-realist program is so clearly Northern in its affiliations[6]. (I will assume here an affinity, at the very least, between Western and Northern – although, of course, this is something still to be fully articulated.) For Connell (2007), what needs to be acknowledged is that social theory generally, and hence sociology and the social sciences in particular, is authorised in and by the Global North. What she identifies as "the northernness of general theory" (Connell, 2007, p. 44) – not so much that it is always or inevitably produced in the Global North as that it finds its authoritative reference-point there – would appear to have relevance here, in thinking about futures for research and knowledge in Education. Sociology in this account was created as a discipline in "the urban and cultural centres of the major imperial powers at the high tide of modern imperialism" (Connell, 2007, p. 9), and subsequently reconstructed and renewed in the United States.

The question is how representative is this of academic-disciplinary culture more generally, and of the modern (research) university, as a now global phenomenon? What might be called *the global-academic* is at issue here: the putative extension of certain forms of science, theory and knowledge to the whole world, along with the criteria for deciding what counts and how it is to be valued. Hence it becomes a global reference-point for knowledge-work, simply and unquestionably authoritative, embodying a perspective that is at once nowhere and everywhere – universal. As such, it is one manifestation of what Haraway calls the God-trick. Against this is to be posited what might be called *situated knowledge(s),* or knowledge-systems that are located in specific geopolitical contexts, in the post-colonial periphery, outside the circuits of global-metropolitan power. These are knowledges that are grounded, literally – which is not to say that they cannot travel, since clearly in some circumstances they can and do; rather, that they retain in doing so an indelible reference to their conditions of possibility, intelligibility *and* validity.

Supplementary knowledges

Given all this, are there what might be called "southern knowledges" that need to be taken into account in education(al) research and curriculum theory, with bearing specifically on Australian education futures? These might be knowledges other than the official, canonic ones, associated with Western science, to which they are perhaps best understood as supplementary or least as complementary. Among other things, this would mean adopting less universalistic or absolutist understandings of knowledge, while seeking still to observe proper and appropriate forms of rigour and validation in this regard. This clearly includes Indigenous knowledges (Sillitoe et al., 1998), including that associated with Australian Aboriginal society and its traditional links with country (Connell, 2007 [Chapter 9 – "The Silence of the Land"]). Moreover,

"Southern theory" is intellectual work that is distinguished by its production *away* from the metropole, or as Connell (Connell, 2007, p. 217) puts it, the "metropole-apparatus". It is produced not simply from *somewhere* – although that is crucially important – but also, just as importantly, from somewhere *else*, thereby explicitly referencing academic and other forms of power and privilege. Rather than being a separate, distinctive identity, moreover, it is predicated on "the articulation of knowledge systems" (Connell, 2007, p. 220), and hence on dialogue, intertextuality, mixings, hybridity. "Existing Southern theory", as Connell (2007, p. 222) writes, "points to a more engaged relationship between knowledge systems, and foreshadows a mutual learning process on a planetary scale".

Once again the (meta-)logic of disciplinarity is hereby called into question, at least as a master-narrative. This is because, as Deng and Luke (2008, p. 76) assert, hegemonic disciplinarity "fails to recognize or at best appropriate other kinds, sources, and modes of knowledge (e.g., practical knowledge, tacit knowledge, and commonsense knowledge; local community knowledges, received wisdom, oral narrative, and, certainly, nondominant cultural knowledges rituals, and practices" – a plurality, that is, of *other* knowledges. At issue here is the notion of different logics of knowledge, different forms of rationality and ways of knowing. These should not be seen as necessary or totally alternative or other, rather as *supplementary* – that is, as adding to and thereby supplementing current-traditional practices and technologies of inquiry and learning. To repeat, this is not to put forward a case for denying or undervaluing current-traditional, human-scientific, academic-disciplinary knowledge. Rather, it is to suggest that such knowledge may need to be articulated with other knowledges so as to best accommodate the complexity and diversity of educational theory and practice. Teacher education, for instance, may not be well served by being restricted to conventional, scientific research and knowledge, or to evidentiary claims and warrants framed in this way.

Practice/knowledge

A crucial consideration here is the concept of *practice*, and how it relates to the knowledge question. Indeed, a case can be made that what needs to be accounted for, in this regard, is a new assessment and appreciation of the relationship between practice and knowledge. Such a case is usefully informed by recent work in what is called "practice theory and philosophy" (Schatzki, Knorr Cetina & von Savigny, 2001; Green, 2009). Drawing from neo-Aristotelian and post-Cartesian perspectives, and encompassing modern and postmodern literatures, this line of inquiry seeks to understand practice as such, and on its own terms, and takes seriously the notion that not only is it un(der)represented in classical Western scientific culture but also, quite possibly, it is *unrepresentable*, at least as representation is conventionally understood (Green, 2010a). At the very least, practice epistemologies are thoroughly

subordinated, when they are not in fact discredited, in the modern research university (Schön, 1995). This has major implications for professional practice, learning and education, especially given the manner in which, over the past century and a half, the professions have been increasingly brought within the technical-rational ambit of the university system. *At what cost?* one may well ask – an ongoing debate, in fact. This is particularly pertinent for teaching and teacher education, much of which is predicated on what might be called practice knowledge, professional judgement, and the development of expertise.

Flyvbjerg (2001) provides an important resource in this regard. His argument is that social science needs to be understood as a distinctive form of knowledge, and that "context and judgement are irreducibly central to understanding human action" (Flyvbjerg, 2001, p. 4). He draws on Aristotle and Foucault to develop an account of what he calls "phronetic knowledge", bringing together *phronïsis* and power. The former is usually understood as practical wisdom or judgement, based on experience. It is increasingly associated with professional practice, in fields ranging from medicine, planning, management, and nursing, as well as teaching. The concept of phronetic knowledge is not uncontroversial, with some arguing that, rather than constituting a distinctive form of knowledge, or knowing, phronïsis itself is best seen as a disposition, to be associated with and leading to *praxis*, or action that is right and good. For Flyvbjerg (2001, p. 56), phronïsis "emphasizes practical knowledge and practical ethics", and is to be contrasted with *episteme* ("theoretical know why") and *techne* ("technical know how"). Moreover, phronïsis is deeply featured in the knowledge project of the human sciences (Flyvbjerg, 2001, p. 61). As he writes elsewhere, "practice wisdom involves not only appreciative judgements in terms of values but also an understanding of the practical political realities of any situation as part of an integrated judgement in terms of power" (Flyvbjerg, 2004, p. 284). As already noted, a rich conceptualisation of experience is at issue here, along with notions such as intuition and "arationality". Furthermore, the value of case- and narrative-based forms of investigation and understanding are emphasised, which provides for a renewed sense of the role and significance of qualitative inquiry.

Moreover, as argued recently (Green, 2010b), this is not something that can be readily transmitted, or taught, let alone codified and rendered as curriculum. Indeed phronetic knowledge might be best understood as bringing together what Deng and Luke (2008, p. 69) identify as the practical and the experiential. While their particular concern is more immediately with school curriculum, they usefully distinguish three conceptions of knowledge", as noted, with practical and experiential knowledges, respectively, to be set alongside and to some extent against disciplinary knowledge. Nonetheless, it remains the case that practical and experiential knowledges, as they describe them, are scarcely represented in school curriculum, and at best only uneasily and ambivalently

in professional education. This poses a major challenge for teacher education, with specific regard to curriculum and pedagogy. As Kemmis (2010) indicates, "*phronïsis* is *not* something that can be developed *directly*" – that is, it is "not something that can be *taught*; it can only be *learned*, and then only *by experience*. To the extent that it can be taught at all, it can only be taught *indirectly*" (Kemmis, 2010, p. 3)[7]. This has real implications for teacher education, but also for research and knowledge as such. It understands knowledge very differently, I suggest, and indeed Kemmis (2010, p. 16) describes it as "a more elusive, negative kind of knowledge", which is something that is not being taken into account at all in the current debate[8].

Conclusion

Education *is* changing, as is knowledge more generally, to a significant degree energised by what has been described as the digital revolution. This has been widely discussed with references to notions such as globalisation, the New Media Age, open access, and the Network Society. Something definitely to be considered here is what this could mean for the future of Education itself, as a distinctive disciplinary field – a *research* field. What is its distinctive knowledge project? How to think about its own knowledge-generating practice, something that is all the more complicated given that working with knowledge is at the very heart of the educational endeavour. It is appropriate at this point, too, to look to the larger history of the field, bearing in mind that it is essentially a twentieth-century phenomenon, at least in terms of its consolidation and formalisation (Green & Lee, 1999; Lawn & Furlong, 2009). That history might be characterised overall as the becoming-science of Education, with a close relationship forged with Psychology and a growing focus on measurement, consistent with its epistemological and methodological location within the new disciplinary formation of the social sciences (Selleck, 1989; Green, 2010b). Even now, a decade into a new century, and indeed a new Millennium, the will to science is powerful and persistent. How educational theory and practice responds to the digital challenge can be linked in interesting ways to the imagining of new and different alliances and trajectories. For instance, one possible scenario is the convergence of Education and Information as disciplinary fields (that is, Education Studies and Information Studies), something that is arguably already nascent in the parallel professional histories of teaching and librarianship (Kapitzke & Bruce, 2006), and also in the manner in which the traditional language and literacy foundations of education and schooling are undergoing a profound metamorphosis with the digital revolution and a new socio-semiotic awareness of the multimodality of knowledge, learning and research (Kress, 2008). Whatever happens in this regard, educational studies will change accordingly, as will education(al) research.

In conclusion, then: It is certainly not the argument here that disciplinarity needs to be either superseded or suppressed, or even compromised, as a form or logic of knowledge pertaining to education(al) research. Rather, it is to be mobilised along with various other knowledge logics and forms, in what is arguably a more comprehensive, flexible and appropriate repertoire of possibilities for ascertaining and adjudicating what constitutes and counts as really worthwhile knowledge, now and in the future. What might be usefully and more systematically or programmatically explored, therefore, is what Connell refers to as "dirty theory", which she glosses as "theorising mixed up with situations" (Connell, 2007, p. 207), and also what she suggests is a radically reconceptualised understanding of "grounded theory", or research that is located clearly firmly somewhere, with a keen sensitivity both to global difference and local specificity. This seems, at the very least, something worth our attention here, in considering issues of research and knowledge in and for Education.

What I have endeavoured to do in this paper is to open up the question of knowledge for renewed scrutiny and debate. This is partly in specific response to recent work in educational sociology seeking to develop a new understanding of the nature and role of knowledge in education and society. Most recently this has involved an explicit engagement with the question of educational futures. Young and Muller (2010) argue for a certain vision of the future predicated, perhaps needless to say, on the key features of the social-realist program, notably what they describe as"[t]he emergent, non-reducible and socially differentiated character of knowledge" (Young & Muller, 2010, p. 14). This is a future in which boundaries are re-affirmed, hierarchies are re-established, and discipline rules again. At its best sophisticated and compelling, the larger case they represent is impossible to ignore, and certainly not to be slighted. But even so, it needs, I believe, to be challenged, and interrogated, and I hope that this paper serves as both a resource and a provocation in that regard. After all, the future is at stake.

Endnotes

[1] Subsequent to the initial presentation of this paper, my attention was drawn in this context to Maton's (2009, 2010a, 2010b) work on what he calls "knower-structures" and "legitimation code theory". While clearly an important contribution to the knowledge debate, not the least because it seeks to take into account cultural studies, English teaching and the humanities, it remains within the educational-sociological research program discussed in a later section here.

[2] It is intriguing, further, that little attention has been given in the work to date to the implications of digital culture for knowledge.

[3] See Maton and Moore (2010) for a selection of key papers in the social-realist program.

[4] In acknowledging a reviewer's observation that, all too often, insufficient reference is made in such debates to actual studies of disciplinary knowledge in context – a point that extends readily to subject-disciplinary knowledge – I agree that work of that kind is much needed at the present time. See Lopes and Macedo (2009) for a recent curriculum account, and also Medway (2010), with specific regard to the subject English.

[5] I am referring here to Delanty (1997, p. 132) reference to the possibility of a "reconciliation" of sorts in what he identifies as "the constructivism-realism debate" in the meta-theory of the social sciences, given that both sides of that debate are "united in a rejection of correspondence theories of truth".

[6] I have in mind here the manner in which Bernstein and Durkheim figure as iconic and even canonic organisers of the work in question. This is partly, of course, because they are substantive aspects of and resources for that argument; but it is also in part an issue of what follows from such contextualisation, especially when coupled with the knowledge claims and critiques of the social-realists.

[7] This is not, as I see it, to re-install a simplistic learner-centredness, and it doesn't rule out teaching – indeed it arguably opens up a new understanding of teaching and learning, curriculum and pedagogy, research and knowledge.

[8] See Furlong and Oancea (2006) for an account of "applied and practice-based research" which at least acknowledges the problem, from an accountability point of view – although they would appear to be working with an under-theorised view of such research as oriented to practical, as contrasted with theoretical, knowledge (p. 91).

References

Anderson, A., & Valente, J. (2002). Introduction: Discipline and freedom. In A. Anderson & J. Valente (Eds.), *Disciplinarity at the Fin de Siecle,* pp. 1-15. Princeton & Oxford: Princeton University.

Bernstein, B. (1977). On the classification and framing of educational knowledge. In *Class, codes and control: Vol 3* (2nd edn.), pp. 85-115. London: Boston & Henley.

Bridges, D. (2006). The disciplines and discipline of educational research. *Journal of Philosophy of Education*, *40*(2), 257-272.

Bullough, R. V. (2006). Developing interdisciplinary researchers: Whatever happened to the humanities in education? *Educational Researcher*, *35*(8), 3-10.

Collins, C., & Yates, L. (2009). Curriculum policy in South Australia since the 1970s: The quest for commonality. *Australian Journal of Education*, *53*(2), 125-140.

Connell, R. (2007). *Southern Theory: The global dynamics of knowledge in social science*. Crows Nest, NSW: Allen & Unwin.

Delanty, G. (1997). *Social science: Beyond constructivism and realism*. Buckingham: Open University Press.

Deng, Z., & Luke, A. (2008). Subject Matter: Defining and Theorizing School Subjects, in M. Connelly, M.-F. He & J. Phillion (Eds.), *The Sage Handbook of Curriculum and Instruction* (pp. 66-87). Los Angeles: Sage Publications.

Department of Education and Science (1975). *A Language for life: Report of the Committee of Inquiry appointed by the Secretary of State for Education and Science under the chairmanship of Sir Alan Bullock FBA*. London: Her Majesty's Stationery Office. [The Bullock Report]

Flyvbjerg, B. (2001). *Making social science matter*. Cambridge: Cambridge University Press.

Flyvbjerg, B. (2004). Phronetic planning research: Theoretical and methodological considerations. *Planning Theory and Practice*, *5*(3), 283-306.

Foucault, M. (1981). The order of discourse. In R. Young (Ed.), *Untying the text: A post-structuralist reader*, pp. 48-78. London, Boston & Henley: Routledge & Kegan Paul.

Freebody, P., Maton, K., & Martin, J. R. (2008). Talk, text and knowledge in cumulative, integrated learning: A response to "intellectual challenge". *Australian Journal of Language and Literacy*, *31*(2), 188-2001.

Furlong, J., & Oancea, A. (2006). Assessing quality in applied and practice-based research in education: A framework for discussion. In J. Blackmore, J. Wright & V. Harwood (Eds.), *Counterpoints on the quality and impact of educational research*, pp. 89-104. [Review of Australian Research in Education, No. 6]. Coldstream, Victoria: The Australian Association for Research in Education (AARE).

Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P., & Trow, M. (1994). *The new production of knowledge: The dynamics of science and research in contemporary societies*. London: Sage Publications.

Gough, N. (2009). No country for young people? Anxieties in Australian society and education. *Australian Educational Researcher*, *36*(2), 1-19.

Green, B. (Ed.) (2009). *Understanding and researching professional practice*. Rotterdam: Sense.

Green, B. (2010a). Rethinking the representation problem in curriculum inquiry. *Journal of Curriculum Studies*, *42*(4), 451-469.

Green, B. (2010b). The (im)possibility of the project. *Australian Educational Researcher*, *37*(3), 1-17.

Green, B., & Bigum, C. (1998). Re-tooling schooling? Information technology, cultural change, and the future(s) of Australian education. In J. Smyth, R. Hattam & M. Lawson (Eds.), *Schooling for a fair go*, pp. 71-96. Annandale, NSW: Federation Press.

Green, B., & Lee, A. (1999). Educational research, disciplinarity and postgraduate pedagogy: On the subject of supervision. In A. Holbrook & S. Johnston (Eds.), *Supervision of postgraduate research in education*, pp. 207-223. [Review of Australian Research in Education No 5]. Coldstream, Victoria: Australian Association for Research in Education.

Haraway, D. (1991). Situated knowledge: The "science" question in feminism and the privilege of partial perspective. In *Simians, cyborgs, and women: The reinvention of nature*, pp. 183-201. New York & London: Routledge.

Hoskin, K. (1993). Education and the genesis of disciplinarity: The unexpected reversal. In E. Messer-Davidow, D. R. Shumway & D. S. Sylvan (Eds.), *Knowledges: Historical and critical studies in disciplinarity*, pp. 271-304. Charlottesville & London: University Press of Virginia.

Hugo, W. (2010). Drawing the line in post-Apartheid curriculum studies. In W. F. Pinar (Ed.), *Curriculum studies in South Africa*, pp. 51-106. New York: Palgrave Macmillan.

Idhe, D. (1990). *Technology and the lifeworld: From garden to earth*. Bloomington: Indiana University Press.

Kapitzke, C., & Bruce, B. C. (Eds.). (2006). *Libr@ries: Changing information space and practice*. Mahwah, NJ: Lawrence Erlbaum.

Kemmis, S. (2010). *Phronïsis*, experience and the primacy of praxis. In A. Kinsella & A. Pitman (Eds.), *Phronesis and professional knowledge*. Rotterdam: Sense.

Kress, G. (2008). Meaning and learning in a world of instability and multiplicity. *Studies in Philosophy of Education*, *27*, 253-266.

Lawn, M., & Furlong, J. (2009). The disciplines of education in the UK: Between the ghost and the shadow. *Oxford Review of Education*, *35*(5), 541-552.

Lee, A., & Green, B. (1997). Pedagogy and disciplinarity in the "new university". *UTS Review*, *3*(1), 1-25.

Lopes, A. C., & Macedo, E. (2009). An analysis of disciplinarity on the organization of school knowledge. In E. Ropo & T. Autio (Eds.), *International conversations on curriculum studies: Subject, society and curriculum*, pp. 169-185. Rotterdam: Sense.

Lyotard, J-F. (1984). *The postmodern condition: A report on knowledge*. Minneapolis: University of Minnesota Press.

Maton, K. (2009). Cumulative and segmented learning: Exploring the role of curriculum structures in knowledge-building. *British Journal of Sociology of Education*, *30*(1), 43-57.

Maton, K. (2010a). Analyzing knowledge claims and practices: Languages of legitimation. In K. Maton & R. Moore (Eds.), *Social realism, knowledge and the sociology of education: Coalitions of the mind*, pp. 35-59. London: Continuum.

Maton, K. (2010b). Canons and progress in the arts and humanities: Knowers and gazes. In K. Maton & R. Moore (Eds.), *Social realism, knowledge and the sociology of education: Coalitions of the mind*, pp. 154-178. London: Continuum.

Maton, K., & Moore, R. (Eds.). (2010). *Social realism, knowledge and the sociology of education: Coalitions of the mind*. London: Continuum.

Medway, P. (2010). English and enlightenment. *Changing English*, *17*(1), 3-12.

Messer-Davidow, E., Shumway, D. R., & Sylvan, D. S. (Eds.). (1993). *Knowledges: Historical and critical studies in disciplinarity*. Charlottesville & London: University Press of Virginia.

Moore, R., & Young, M. (2001). Knowledge and the curriculum in the sociology of education: Towards a reconceptualisation. *British Journal of Sociology of Education*, *22*(4), 445-461.

Moore, R. (2000). For knowledge: Tradition, progressivism and progress in education – Reconstructing the curriculum debate. *Cambridge Journal of Education*, *30*(1), 17-36.

Moore, R. (2007). Going critical: The problem of problematizing knowledge in educational studies. *Critical Studies in Education*, *48*(1), 25-41.

Muller, J. (2000). *Reclaiming knowledge: Social theory, curriculum and education policy*. London & New York: Routledge Falmer.

Muller, J., & Young, M. (2002). The growth of knowledge and the discursive gap. *British Journal of Sociology of Education*, *23*(4), 627-637.

Pinar, W. F. (2004). *What is curriculum theory?* Mahwah, NJ: Lawrence Erlbaum Publishers.

Pinar, W. F., Reynolds, W. M., Slattery, P., & Taubman, P. M. (1995). *Understanding curriculum: An introduction to historical and contemporary discourses*. New York: Peter Lang.

Schön, D. (1995). The new scholarship requires a new epistemology. *Change*, *26*(6), 26-34.

Selleck, R. J. W. (1989). The Manchester Statistical Society and the foundation of social science research. *Australian Educational Researcher*, *16*(1), 1-15.

Schatzki, T. R., Knorr Cetina, K., & von Savigny, E. (Eds.). (2001). *The practice turn in contemporary theory*. London & New York: Routledge.

Sillitoe, P., Bentley, J. W., Brokensha, D., Cleveland, D. A., Ellen, R., Ferradas, C., et al. (1998). The development of Indigenous knowledge: A new applied anthropology (with comments and reply). *Current Anthropology*, *39*(2), 223-252.

Whitty, G. (2006). Education(al) research and education policy making: Is conflict inevitable? *British Educational Research Journal*, *32*(2), 159-176.

Yates, L., & Collins, C. (December, 2008). *Australian curriculum 1975-2005: What's been happening to knowledge?* Paper presented at the Annual Conference of the Australian Association for Research in Education, Queensland University of Technology, Brisbane, Queensland.

Yates, L., & Collins, C. (2010). The absence of knowledge in Australian curriculum reforms. *European Journal of Education*, *45*(1), 89-102.

Young, M. (1971). *Knowledge and control: New directions in the sociology of education*. London: Collier-Macmillan.

Young, M. (2003). Curriculum studies and the problem of knowledge: Updating the enlightenment? *Policy Futures in Education*, *1*(3), 553-564.

Young, M. (2008a). *Bringing knowledge back in: From social constructivism to social realism in the sociology of education*. London & New York: Routledge.

Young, M. (2008b). From constructivism to realism in the sociology of the curriculum. *Review of Research in Education*, *32*, 1-28.

Young, M., & Muller, J. (2010). Three educational scenarios of the future: Lessons from the sociology of knowledge. *European Journal of Education*, *45*(1), 11-27.