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Educational research as a practical science

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This article offers a philosophical contribution to recent debates about the assessment of quality in educational research. It shows how criticisms of the quality of educational research—pointing to its failure to meet epistemic criteria of rigour and practical criteria of relevance—are an inevitable manifestation of the flawed assumption that educational research is to be understood as a species of modern social science. It draws on Furlong and Oancea's study of quality in practice-based research, Gadamer's critique of modern social science and Lagemann's historical account of the origins and evolution of educational research in the USA, to argue for a reconstruction of educational research as a species of Aristotelian practical science.

Introduction

Questions about the quality of educational research tend to cluster into two quite separate areas of concern. On the one hand, there are the questions asked by the academic community about the extent to which educational research meets the epistemic criteria characteristic of good social scientific research—for example, questions relating to its theoretical rigour or to the validity of the knowledge it generates. On the other hand, there are the questions asked by the educational community about the extent to which educational research meets criteria of practical relevance—for example, questions concerning the contribution of educational research to the formation of educational policy or the improvement of educational practice.

The reason why educational research is required to meet both epistemic and practical criteria is not hard to identify. Educational research has always aspired to be a 'practical science': 'practical' in the sense that it seeks to generate rational knowledge that will have a significant and worthwhile effect on the decisions and judgements of educational policymakers and practitioners; a 'science' in the sense that it seeks to generate this knowledge in accordance with prevailing standards of rigour, rationality

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and truth. Throughout the twentieth century, this compelling vision of educational research as a practical science, simultaneously contributing to the development of educational knowledge and to the improvement of educational policy and practice, has been the dominant moving force in the intellectual and institutional development of educational research and continues to underwrite the self-understanding in terms of which many educational researchers made sense of their intellectual ambitions and legitimise their cultural and educational role.

In recent years, the confidence of those who continue to pursue this vision has been severely eroded in two different ways. First, it has been subjected to the powerful postmodern critique of the conceptions of knowledge, rationality and truth on which it has been erected (Usher & Edwards, 1994; Stronach & MacLure, 1997). From the perspective of postmodernism, educational research is just one more project of modernity that originated and evolved in a culture which unconsciously assumed that educational progress depended on reforming educational institutions and practices on the basis of research-based knowledge that met impersonal standards of objectivity, rationality and truth. But whatever else it means postmodernism is intended to announce that the culture of modernity has now given way to a 'postmodern condition' in which the epistemological assumptions which sustained educational research's claim to produce such knowledge are no longer valid. From a postmodern perspective, any suggestion that the knowledge generated by educational research is based on rational foundations is no longer credible and its belief in uncontested and impersonal standards of objectivity and truth no longer makes any sense. From a postmodern perspective, to continue to believe that educational research can ever achieve its original vision is to embrace a fiction that is now bankrupt and defunct.

In addition to this postmodern critique of its theoretical foundations, educational research's claim to be a practical discipline has also been severely undermined by a series of high profile critical accounts of its failure to meet the criteria of practical relevance. (Hargreaves, 1996; Hillage *et al.*, 1998; Tooley & Darby, 1998). The collective effect of these criticisms has been to create an image of educational research as a practically sterile activity that has conspicuously failed to produce a rational base for educational policy and practice and is largely irrelevant to the needs of the educational policymakers and practitioners to whom it is supposedly addressed. David Hargreaves (1996) summarised these criticisms as follows:

> Educational research does not make any serious contribution to fundamental theory or knowledge, is irrelevant to practice and produces inconclusive, inconsistent and contestable findings that are of little practical relevance … Educational research has failed to yield a corpus of research evidence that can be regarded as scientifically sound or as offering a worthwhile resource for guiding professional action … It is widely perceived as irrelevant to, and separate from, educational practice and has produced little more than a catalogue of disparate findings that cannot be integrated into any systematic whole. (Hargreaves, 1996, p. 4)

How have educational researchers responded to this two pronged attack? Some have responded to the postmodern critique by insisting that its obituary to modern forms of educational research are premature and that the modern conceptions of rationality

and truth that postmodernism now refutes still remain valid (Carr, 1998). Others have taken the opposite view and insisted that educational research's claim to produce rational knowledge that can guide educational policy and practice is no longer tenable and that it is now necessary to reconstruct educational research so as to take account of the central insights of postmodern thought (Thomas, 1988). Educational researchers who have responded to the accusations of practical irrelevance have also done so in diametrically opposing ways. For example, some have argued that the practical relevance of research is not always immediately obvious and any suggestion that educational research should have a straightforward impact on policy or practice is simplistic and naive (Hammersley, 1997; Hannon, 1998). Conversely, others have admitted that educational research does indeed fail to make sufficient practical impact and have called for more effective strategies for bridging the gap between educational research and the educational policymakers and practitioners to whom it is addressed (MacIntyre, 1998).

Thus it turns out that, when called upon to defend itself against the criticisms being advanced by its postmodern adversaries and its external audience, educational researchers have not done so by invoking and defending the idea of a practical science. Instead, they have responded by mounting two separate arguments each addressed to a different audience and in response to different concerns. One of these arguments is so exclusively concerned with confronting the postmodern attack on the theoretical rigour of educational research that questions about its practical relevance do not even get off the ground. The other is so pre-occupied with the need to demonstrate the practical utility of educational research that the postmodern critique of its theoretical rigour is more or less ignored. But a response to these criticisms, that is rarely if ever to be found, is one that is prepared to contemplate the possibility that both the theoretical and the practical criticisms now being made of educational research may be an entirely justified reaction to, and predictable manifestation of, some deeply flawed assumptions rooted in the conceptual foundations on which the vision of educational research as a practical science has been erected. But if this is so—if, that is, the contemporary criticisms of educational research are precisely the kind of criticisms that are inevitably engendered by educational research as it is now understood—then it follows that the only adequate way for educational researchers to respond to their critics is to consider the suggestion that it is the presuppositions governing their own self-understanding of educational research that is preventing their vision of a practical science from being realised and achieved. And the only way to do this is to return to the question 'what is educational research?' in order critically to examine not only the way it is has been answered but also the way it has been asked.

What is *educational* research?

What is so striking about contemporary educational research is that there is no single definition of what it is that can command anything remotely resembling universal assent. Although educational researchers often behave as if they belong to a single intellectual community, the sad truth is that educational research now embraces so

many traditions, paradigms, theoretical perspectives, methodological frameworks and academic disciplines that it cannot claim to meet even the most minimal criteria of homogeneity that any notion of a 'research community' presupposes and requires. It is thus unsurprising that any identity educational research may have stems more from its institutional embodiment in conferences, research journals and learned societies than from any internal intellectual coherence. Nor is it surprising that the *British Educational Research Association* is now organised as a collection of more or less isolated and independent 'special interest groups', each pursuing their own special interests in their own particular way and each adopting the particular view of 'what educational research is' implicit in the particular research paradigm or theoretical perspective to which its members happen to subscribe.

But along with incorporating different and often incompatible conceptions of 'what research is', different theoretical and methodological frameworks also incorporate different and often incompatible assumptions about how, for the purpose of research, 'education' is to be interpreted and hence always incorporate different and incompatible conceptions of 'what education is' as well (Carr, 2000; Pring, 2000). It is no doubt for this reason that politicians, policymakers and practitioners are only likely to acknowledge the relevance of those forms of educational research which employ methodologies that conceptualise education in a way which is closely aligned to their own values and beliefs. And it is for much the same reason that those who are committed to a very different view of education will in all probability regard the same research as practically irrelevant and dismiss it out of hand.

The diverse ways in which educational research is now conceived raises an obvious question. If the very notion of 'educational research' presupposes a coherent, unified and relatively homogenous field of inquiry, yet the fragmented and heterogeneous nature of educational research makes this presupposition untenable, how can any claim to be engaged in educational research be assessed? Clearly, if there are no criteria for distinguishing research which is 'educational' from research which is not, there are no grounds for using this term to designate one kind of research rather than any other. Alternatively, if there are such criteria, to try and distil these from the diverse practices of those claiming to be engaged in educational research merely begs the very question at issue. 'What is educational research?' is not a question about the numerous ways in which this enterprise is conventionally conducted, as much as a request to spell out the distinctive criteria in terms of which the adequacy of each and any of these approaches can be assessed.

A preliminary step to identify these criteria is to note that, like any other intentional human activity, educational research can only be made intelligible by reference to its overall purpose. The overall purpose of 'research' is to contribute to the development of knowledge through systematic self-critical inquiry (Stenhouse, 1986). Clarifying the purpose of *educational* research, however, is complicated by the fact that education is, no less than educational research, itself an intentional human activity that can only be made intelligible by reference to its overall purpose. So, although the purpose of educational research is to contribute to the development of knowledge, what distinguishes it from other forms of research—what makes it 'educational'—is that the

knowledge it seeks to develop is that which will enable those engaged in educational activities to achieve their purposes in a more systematic and self-critical way. At the outset then, it is important to recognise that, in answering the question 'what is educational research?' the initial task is not to identify the existing model of social scientific research on which educational research ought to be based but to clarify whether a mode of research that seeks to produce knowledge that can contribute to the development of an activity like education should be based on an existing social scientific model of research at all. Lawrence Stenhouse made a similar point many years ago:

> What counts as educational research? There is, of course, in history philosophy psychology and sociology, research on education conducted from the standpoint of the disciplines which contribute to the educational enterprise incidentally if at all. It is, one might say, educational research only in the sense that Durkheim gave us suicidal research. (Stenhouse, 1981, p. 113)

What is education?

The main lesson to be drawn from the foregoing analysis is that in order to answer the question 'what is educational research?' the logically prior question that needs to be asked is not 'what is research?' but 'how, for the purpose of research, is the concept of education to be interpreted and understood?' It is therefore disappointing to note that educational researchers who are more than willing to participate in methodological debates about the meaning of research often seem to assume that the meaning of education is so obvious and self-disclosing that it does not even need to be discussed. As a result, the different conceptions of education implicit in the different perspectives and methodologies employed in educational research are never made explicit and serious and systematic reflection on the particular educational standpoint they presuppose is conspicuously absent. It is thus further testimony to the fractured and fragmented nature of educational research that while the question 'what is education?' may be central to the internal research agenda of that small band of educational researchers known as 'philosophers of education', other educational researchers seem willing to allow questions about the conception of education that should provide the intellectual basis for their inquiries to be answered by default.

Although the ways in which the question 'what is education?' has been addressed by philosophers has a long and distinguished history (Rorty, 1998), their cumulative effect has been to make it clear that far from being some kind of inert 'phenomenon', 'education' can only be observed in the range of practices through which educational activities are conducted and their purpose is pursued (Oakeshott, 1972; Schon, 1983; Carr, 1987; Pring, 2000; Dunne & Hogan, 2003). But what they also show is that any observation of an educational practice can only be made intelligible as such by reference to the tacit and at best partially articulated framework of understanding which allows practitioners to characterise their practice as an *educational* practice and so make sense of what they are doing and what they are trying to achieve. To say this is, of course, not to say that there is some observable practice and some non-observable

understanding of the educational purpose of this practice. It is simply to make the point that education is a practice and that to engage in this practice always presupposes an interpretation of what education is and what it is for that is both constitutive of this practice as an educational practice and the means for understanding the educational character of the practices of others.

What is also distinctive of an educational practice is that it is a social practice whose meaning and significance is constituted and sustained through the routine, everyday activities of the community of educational practitioners and endemic to the institutionalised culture within which these activities take place. In other words, an educational practice is a discursively formed and socially situated practice that can only be learned by acquiring the largely unarticulated and usually tacit body of practical knowledge and understanding endemic to the social context with which educational practices are conducted (MacIntyre, 1982; Lave and Wenger, 1991; Schatzki, 1996; Wenger, 1998). Of course, the particular understanding of education circulating in any educational community is not something that its members have worked out for themselves. Rather, the way in which 'education' is interpreted at any given time and in any given culture is always constituted by, and constitutive of, those historically bequeathed traditions of educational thought and action within which practitioners' collective understanding of their practice develops and evolves. In other words, educational practice has a history and to be initiated into this practice is always to be initiated into the historical traditions through which our understanding of education has been reproduced and transformed over time (Oakeshott, 1972; MacIntyre, 1982; Schatzki, 1996).

But along with being a socially situated and historically formed practice, education is also a species of that kind of morally informed human practice that Aristotle termed *praxis* and which he carefully distinguished from that instrumental form of practice that he termed *techné* (Aristotle, 1955; Dunne, 1993). While *techné* is a type of instrumental practice undertaken in order to achieve some extrinsic or independently determined outcome, the 'end' of *praxis* is inseparable from, and intrinsic to, *praxis* and can only exist in *praxis* itself. Understood as a species of *praxis*, educational practice is thus a form of ethical action in which, and through which, a commitment to some educationally worthwhile 'end' is given practical expression. This is not to say that a practice is only an educational practice in so far as it is 'based on' or 'guided by' abstract educational principles or general ethical concerns. It is simply to make the point that the educational character of any practice can only be identified by reference to the educational values imminent in the practice itself—values which serve to distinguish practices which are educational from practices which are not and good educational practice from that which is indifferent or bad. In other words, it is to make the point that a practitioner does not act educationally by acting in accordance with a set of theoretically vindicated educational principles but by acquiring an ethical disposition to practice in accordance with some more or less tacit understanding of what it is to act in an educationally principled way.

Aristotle called this disposition *phronesis*—which we would today translate as practical wisdom—and it is acquired by educational practitioners who, in striving to

achieve the standards of excellence intrinsic to their practice, develop a capacity to see the particularities of a concrete practical situation in the light of its general educational significance, and on the basis of sound practical reasoning, to make an informed judgement about what it would be educationally appropriate to do. Thus, *phronesis* is a form of ethical reasoning in which the notions of deliberation and judgement play a central role. It is a form of deliberative reasoning because 'means' are always understood by reflecting on 'ends' just as 'ends' are always understood by reflecting on the 'means'. And judgement is an essential element of *phronesis* because its outcome is a reasoned decision about what would be the morally appropriate and fitting thing to do in a particular situation (Dunne, 1993).

Once it is recognised that education is a historically constituted and ethically informed social practice, questions about the vision of educational research as a practical science can be cast in a more precise form. Can educational research's aspiration to be both theoretically rigorous and practically relevant remain intelligible without recourse to the Aristotelian concepts of *praxis* and *phronesis*? Does the recognition that education is a practice bring into relief a radical alternative to the social scientific model of educational research? Does the educational research community already accommodate models of educational research that afford educational practice a central place? If so, how are these 'practice-based' approaches to research defined and understood? This last question has recently been addressed by John Furlong and Alis Oancea in a research study commissioned by the ESRC 'to bring some conceptual clarity to different approaches to applied and practice-based research with a view to develop appropriate quality criteria' (Furlong & Oancea, 2005, p. 3). It may, therefore, be worth asking whether their study can also bring some conceptual clarity to questions about how the vision of educational research as a practical science ought to be articulated and understood.

Practice-based educational research

On the basis of research data accumulated through a literature review, interviews with key individuals and a process of consultation, Furlong and Oancea arrive at an 'inclusive definition' of applied and practice-based research as 'an area situated between academia-led theoretical pursuits (e.g. historical research) and research informed practice, and consisting of a multitude of models of research explicitly conducted in, with and/or for, practice' (*op. cit.*, p. 9).

As Martyn Hammersley has pointed out, this definition 'is not very helpful since it leaves unclear the distinctive features of the sort of research with which the authors are concerned. In effect, it tells us only what applied and practice-based research is not' (Hammersley, 2006, p. 7). Moreover, as he also indicates, since any adequate definition of applied and practice-based research always requires clarifying the purpose for which it is being undertaken, Furlong and Oancea's failure to do this 'creates a fundamental problem with their framework' (*op. cit.*, p. 12).

In the light of these critical comments, it is unsurprising that, in a subsequent article, Oancea and Furlong decide to conduct a 'reflective iteration' of their original

ideas 'developing and refining them where we think this will help in making them more explicit in the hope of moving the argument on' (Oancea & Furlong, 2007, p. 120). What emerges from this process is a realisation that 'what was needed was not yet another set of criteria to add to the ever growing mass of existing checklists' (*ibid.*, p. 120). Indeed, Oancea and Furlong now take the view that their assessment framework should 'not be read as an attempt to regulate … what applied and practice based research in education should look like … but as part of a struggle to recapture a cultural and philosophical dimension of research assessment that has been lost in recent official discourse' (*ibid.*, p. 122).

In order to recapture this philosophical dimension, Oancea and Furlong invoke the Aristotelian distinctions between three different domains of human action (*theoria*, *poesis* and *praxis*) and the different modes of reasoning through which their internal standards of excellence are expressed (*episteme, techné, phronesis*). This in turn provides them with the 'conceptual tools' for reconceptualising the problem of quality in applied and practice-based research so that 'it is no longer one of fine tuning a single set of criteria … but rather one of capturing the deep distinctiveness of the three domains and of their expressions of excellence' (*ibid.*, pp. 124–125). To this end, they, therefore, 'reframe the problem' by interpreting 'application as *a complex entanglement of research and practice*, assessment as *deliberation and judgement* and quality as *excellence or virtue* in a classical Aristotelian sense of the term' (*ibid.*, p. 121).

One of the insights Oancea and Furlong derive from this reframing of the problem is recognition of how 'a consideration of *phronesis* raises important questions about research assessment where current practices are so deeply embedded in a technical framework' (*ibid.*, p. 127) and, in a subsequent article, Oancea again adopts an Aristotelian perspective to show how the 'official discourse' sustaining this framework constrains the way in which the concept of quality is interpreted and understood. By doing this, she is able to raise a fundamental question about research quality assessment. 'Is it at all possible' she asks 'to open assessment criteria towards a phronetic understanding of research and its relationship to practice?' (*ibid.*, p. 7)

This brief account of Furlong and Oancea's evolving interpretation of their quality assessment framework is not only intended to describe how they reformulated their understanding of the questions that need to be asked about the assessment of practice-based educational research. It is also intended to reveal how they were only able to do this by conducting a systematic and self-critical inquiry through which their initial understanding of what they were doing was reflectively developed, refined and transformed. This inquiry was initiated by Furlong and Oancea's crucial realisation that the initial research questions posed in their ESRC commissioned project themselves posed more fundamental questions about the validity of the conventional assumptions concerning the way in which the quality of applied and practice-based research should be assessed. But, since these questions could not be addressed from within the 'official discourse' of quality assessment, they were obliged to acquire an external vantage point from which to transcend the boundaries imposed by this discourse and so make its implicit assumptions more transparent and open to question.

Because the conceptual resources required to achieve this external perspective could not be provided by the kind of research methods used in their initial project, Furlong and Oancea invoked the Aristotelian philosophical tradition in order to frame adequate answers to the questions they now wished to address. And, by bringing the technical framework governing the contemporary understanding of research assessment into critical confrontation with the Aristotelian concepts of *praxis* and *phronesis*, they were able to engender a level of reflective self-consciousness which enabled them to put this framework to the question. Thus, the outcome of their inquiry was not a set of conclusive answers to technical questions about how the quality of applied and practice based research ought to be assessed. It was simply to recognise the need for an open 'conversation about…different modes of knowledge and rationality and the relationship of research and practice' (*op. cit.*, p. 134)—a conversation which is neither constrained by the 'official discourse' of quality assessment nor foreclosed by the technical framework within which assessment practices are now embedded.

By engaging in a process through which their self-understanding of their own research practice was progressively transformed, Furlong and Oancea not only demonstrate how educational research is itself a form of *praxis*. They also reveal how, in seeking to emulate the standards of excellence intrinsic to their practice, they found it necessary to conduct an inquiry in which non-technical questions about the educational value and validity of contemporary research assessment procedures could be reflectively exposed and critically addressed. Although the non-methodical nature of their inquiry may have prevented Furlong and Oancea from regarding it as 'research', this should not be allowed to conceal the extent to which it resembles— however imperfectly—a model of practice-based research that derives from a long standing historical tradition with its own intellectual commitments and its own moral demands. Within this tradition, the mode of inquiry appropriate to the development of practice was the science of practical philosophy that permeated western intellectual culture until the seventeenth century and that has only finally been discarded in our own modern times (Toulmin, 1988, 1990). Of course, Furlong and Oancea do not interpret the process through which they reflectively reconstructed their initial understanding of their project as a 'research' process and, for this reason, do not consider whether their exercise in practical philosophy may itself suggest how the vision of educational research as a practical science may be reconstructed and revised. It may, therefore, be useful to try and perform this task on their behalf.

What is practical philosophy?

In his seminal text, *Truth and method* (1975) Hans-Georg Gadamer provides a compelling account of how 'modernity'—which for him 'can be defined quite unequivocally as the emergence of a new notion of science and method' (Gadamer, 1981, p. 6)—has been erected on the assumption that the discovery of 'truth' in any domain can only be achieved by employing the appropriate 'method'. One of the inevitable consequences of this is the emergence of an understanding of 'what social

science is' in which the notions of methodological sophistication and technical expertise are allocated a central role and the Aristotelian concepts *phronesis* and *praxis* can no longer be given any adequate expression. Because of this, argues Gadamer, we now live in 'a society of experts' in which practical reason has been rendered obsolete and the ability of ordinary individuals to rationally determine how their practical activities ought to be conducted has been eroded. As a result, there has been 'a degeneration of practice into technique … and a general decline into social irrationality. In this situation', asks Gadamer, 'what significance can there be in philosophical reflection on the true meaning of practice?' (Gadamer, 1981, p. 74)

In an article entitled *Practical philosophy as a model of the human sciences*, Gadamer confronts this situation by asking whether it is possible to recover from history a model of 'science' 'which is not based on the idea of method' and which can provide the starting point for developing a non-methodical form of social science which revives the concepts of *phronesis* and *praxis* and makes them appropriate to 'modern times' (Gadamer, 1980, p. 74). In answering this question, he notes how the emergence of modern science led to the demise of a pre-modern concept of 'science' which 'did not consist simply of research grounded on the modern notion of method … It connoted … any true knowledge even if it were unattainable by means of the procedures of empirical scientific labour'(Gadamer, 1981, p. 89). More specifically, he points out how 'the notion of method fundamental to modern science brought into dissolution … the science of practical philosophy established by Aristotle' (Gadamer, 1981, pp. 114–115). And, for Gadamer, it is this Aristotelian science of practical philosophy that helps us not only to expose the inadequacies of the modern social sciences but also to develop an alternative understanding of 'what social science is' which reinstates the role of practical reason in social life. As he puts it, 'the scientific character of practical philosophy is, as far as I can see, the only model for the self-understanding of the social sciences if they are to be liberated from the spurious narrowing imposed … by the modern notion of method' (Gadamer, 1979, p. 107).

Within what Gadamer describes as 'the remote and no longer vital tradition of Aristotelian philosophy' (Gadamer, 1975, p. 78), it was readily conceded that the peculiarities of practical knowledge—its embeddedness in practice and its inseparability from the concrete situation in which it is applied—means that it cannot be developed by a 'theoretical science' that yields generalisable or theoretical knowledge that can be applied universally and unconditionally. Similarly, because practical knowledge concerns both 'means' and 'ends', it cannot be developed by a value free 'applied science' that provides expert knowledge about the most effective means by which the pre-determined ends of practice can be achieved. It can only adequately be advanced by a 'practical science' concerned to preserve and promote, rather than replace or supplant, the mode of knowledge and understanding already implicit in practice. For Gadamer, as for Aristotle, the only science that can achieve this aim is 'practical philosophy': the science of 'the good' that sought to promote *praxis* by cultivating the natural human capacity of *phronesis*.

Practical philosophy is thus the science that, by enabling practitioners reflectively to expose and critically revise the presuppositions inherent in their practice enables

them to reconstruct their knowledge and understanding of how its internal 'good' is to be more appropriately pursued. As such, it is the mode of inquiry through which practitioners, in striving to achieve excellence in their practice, are able to raise the pre-reflective knowledge and understanding they have inherited from tradition to the level of reflective awareness in order to transcend the limitations of what, within that tradition, has been thought, said and done. The kind of knowledge that practical philosophy generates, therefore, is not theoretically justified knowledge but the kind of reflectively acquired self-knowledge that allows practitioners to identify and eliminate the inadequacies and limitations of the practical knowledge and understanding sustaining their practice. Gadamer calls this kind of knowledge 'historical self-consciousness'—a self-conscious awareness of the presuppositions—or what he calls the 'prejudices'—of the tradition within which practical knowledge and understanding are embedded. For Gadamer, it is only by reflectively recovering the 'prejudices' at work in their practice that practitioners will be able to 'distinguish the true prejudices by which we understand from the false ones by which we misunderstand' (Gadamer, 1975, p. 266). So understood, practical philosophy is simply the name of that tradition of inquiry which, by promoting historical self-consciousness, enables each generation of practitioners to make progress in achieving excellence in their practice and, by so doing, ensure that tradition through which it is sustained progressively evolves.

In seeking to promote this kind of historical knowledge, practical philosophy does not employ the kind of research methods endemic to the modern social sciences. Instead, it acknowledges that historical self-consciousness can only be achieved by practitioners engaging in an open conversation in which each participant allows the particularity of their own inherited mode of interpretation and understanding to be exposed to, and amended on, the basis of the very different interpretations and understandings of others. What participants learn in such conversations is not just how their mode of interpretation and understanding is only intelligible in the light of their own historical traditions, but also how to draw on the resources afforded by other traditions of interpretation and understanding in order to identify and correct the errors and inadequacies in their own. Thus, the outcome of conversation is a mode of interpretation and understanding that, through critical encounter with another tradition of interpretation and understanding, has been modified and transformed.

Educational research as a practical science

To those who take it for granted that educational research is a species of modern social scientific research, the suggestion that educational research ought now to be construed as a postmodern continuation of pre-modern practical philosophy will be all but incomprehensible and while they may readily concede that there are serious difficulties in realising the vision of educational research as a practical science, they will be reluctant to accept that these difficulties constitute a refutation of their understanding of educational research. But once they are prepared to allow their understanding of educational research to be brought into critical confrontation with the

very different understanding provided by the Aristotelian philosophical tradition, they may begin to recognise how the prejudices and presuppositions of modernity have shaped their understanding of their practice and continue to frustrate the realisation of their vision of educational research as a practical science. What this new level of historical consciousness may then engender is a revised understanding of educational research which, by drawing on the Aristotelian tradition of practical philosophy, would differ from its modern counterpart in several important respects.

What first would distinguish this conception of educational research is that it starts from an understanding of what education is (rather than what research is) and allows this to determine the kind of knowledge that can contribute to its development. It would therefore not seek to improve the rationality of education by infusing practice with knowledge it had itself methodically produced but by enabling practitioners to rationally examine their practice on the basis of their own reflective inquiries. Thus, it would be a form of research that no longer produces social scientific knowledge 'on' or 'about' education but instead develops the kind of self-knowledge that enables practitioners to identify the unquestioned assumptions and irrational beliefs sustaining their practice and, by so doing, enables them to evaluate their practice on the basis of a coherent and clearly articulated educational point of view. In this sense, it is a form of educational research that allows practitioners to reconstruct their practice as an *educational* practice in a rational and reflective way.

Second, the kind of educational research being envisaged would no longer be a professionalised activity requiring methodological sophistication or technical expertise. Instead, it would recognise that 'education' is a historically located and culturally contingent practice whose integrity can only be sustained through a mode of inquiry which fosters the kind of dialogue and conversation through which the tradition embedded nature of the practical knowledge and understanding implicit in educational practice can be made explicit and practitioners' collective understanding of their practice as an *educational* practice can be reflectively transformed. It would thus be a mode of inquiry that recognised that history is the domain in which educational practice is constituted and cultivated and that the power of history is something that the research methods and methodologies of the social sciences can never eliminate or transcend.

What finally would characterise this conception of educational research is its recognition of how the criteria of research quality dominant at any one time are always relative to, and never independent of, the biases and prejudices endemic to the historical and cultural context in which they were formed. But although the kind of educational research being envisaged recognises that assessment criteria are in Richard Rorty's words 'no more than temporary resting places constructed for utilitarian ends' (Rorty, 1979, p. 319), this does not prevent it from being subjected to judgements about its quality. It simply means that such judgements always emerge in the course of a conversation amongst its practitioners about how to resolve the intractable difficulties that are, at any particular historical moment, preventing the standards of excellence intrinsic to their practice from being achieved. Thus, the quality criteria appropriate to this kind of educational research will not be the outcome of an abstract theoretical discussion about the criteria themselves, but will instead be forged through an understanding

of what constitutes 'excellence' in educational research that emerges from a conversation about concrete practical issues arising from the actual research inquiries to which these criteria are to be applied (Schwandt, 1996; Smith & Deemer, 2000).

To interpret educational research as a postmodern continuation of pre-modern practical philosophy is, then, to interpret it as a genuine practical science for which the problem of reconciling the twin aims of rigour and relevance would not—indeed could not—arise. It is also to anticipate the reconstruction of educational research as a mode of inquiry that would be simultaneously 'scientific', 'practical' and 'educational'. It would be 'scientific' in that it critically and systematically develops the body of knowledge that structures the interpretations of educational practitioners and hence structures education itself; 'practical' in that it recognises that this knowledge always arises from, and must always relate back to practice; and 'educational' in that it self-consciously promotes the ethical ends that are constitutive of a practice as an educational practice and justify its description in these terms.

Conclusion

In her book *The elusive science*, Ellen Condliffe Lagemann offers a history of educational research in the USA which tries to confront some of the questions which this article has also sought to address. 'How', she asks,

> was the historical character of educational research defined? … Why has this domain of scholarly work … been rarely trusted by policy makers and practitioners? … Can history point towards a reconfiguration that might have positive outcomes not only for a better understanding of education but also for the improvement of educational policy and practice through research? (Lagemann, 2000, p. x)

In seeking to answer these questions, Lagemann, argues that 'the most powerful forces to have shaped educational scholarship over the century have tended to push the field in unfortunate directions—away from close interactions with policy and practice and towards excessive quantification and scientism' (*ibid.*, p. xi). She also notes how early educational researchers 'tried to emulate their brethren in … the more developed social sciences and failed to realize that their goals might have been better served by pondering what distinctive characteristics might comprise rigor and relevance in this domain of scholarship' (*ibid.*, p. xii). For Lagemann, it was primarily because they 'accepted and perpetuated the myopias common to their world' that 'the vision of many of the early educationalists was mightily flawed' (*ibid.*, p. xii).

The primary aim of this article has been to show how this 'flawed vision' was the product of the faulty assumptions of modernity and how these assumptions continue to exercise a distorting influence on the way in which the vision of educational research as a practical science is interpreted and pursued. In trying to achieve this aim, I have not argued that this vision is impossible to achieve but that its successful achievement presupposes an understanding of educational research in which the twin aspirations of theoretical rigour and practical relevance can be coherently combined. But what I have also argued is that, because educational research has always adopted the understanding of 'research' bequeathed by modernity, these aspirations have

always lacked the necessary condition for their joint enactment. The inevitable consequence is that educational research is now invariably conducted in a way which is *either* theoretically rigorous *or* practically relevant but not, at one and the same time, both. It is thus unsurprising to find that any educational research that succeeds in achieving one of its avowed aims usually fails to achieve the other.

The conclusion I have derived from this argument is that as long as educational research remains constrained by assumptions of modernity, so long will its aspiration to be a practical science be frustrated and impaired. And the conclusion I have drawn from this conclusion is that instead of confronting its critics by offering contrived rationalisations for a *status quo* that is constantly being confronted by its obvious deficiencies and failures, educational researchers should now acknowledge that the time has come for them to engage in an unrestricted conversation with the wider educational community—a conversation in which all participants were taken seriously, in which there were no barriers to free and open communication and in which it some old certainties would be abandoned and some new questions would be addressed. Has educational research contributed to the erosion of the intellectual and cultural conditions that are necessary for its avowed commitment to the vision of a practical science to be fulfilled? Is educational research itself implicated in depriving education of a tradition of inquiry which recognises the historical nature of the mode of practical reasoning through which educational knowledge develops and evolves? Should the claim that educational research is a legitimate social science no longer be regarded as a sign of methodological progress but instead be seen as one of the illusions of the modern age?

Clearly, such a conversation would benefit by being informed by the work of those influential critics of modernity who have revived the Aristotelian concepts of *phronesis* and *praxis* in a way that makes them relevant to the modern world (Gadamer, 1975, 1980, 1981; MacIntyre, 1981; Bernstein, 1983; Toulmin, 1988, 1990). It would also benefit from a close inspection of recent attempts to reconstruct the social and political sciences as 'phronetic' sciences explicitly concerned with protecting the integrity of *phronesis* and *praxis* from the corrupting influence of dominant forms of social science. (Flyvbjerg, 2001; Schram, 2004). Of course, the educational researchers may be reluctant to participate in this kind of conversation and continue to confront their critics by deploying the kind of rhetorical devices that prevent their existing self-understanding from being seriously put to the question. What I have tried to show is that it is only by displaying a willingness to expose reflectively and revise critically the preconceptions constitutive of this self-understanding that we will begin to appreciate that the reason why the vision of educational research as a practical science remains unfulfilled is not because of what it includes and affirms but because of what contemporary educational research excludes and denies.

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