

Methodological Paradigms in Educational Research

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Martyn Hammersley, Professor of Educational and Social Research at the Open University

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Introduction: Divisions, Issues, and Debates

For the newcomer to educational research, and even for those already familiar with the scene, there is now a baffling array of different approaches advertised and practised.

The days are long gone when the main internal divisions were marked by the disciplines (psychology and sociology, but also philosophy and history), each adopting one or two major methodological approaches. Now, the disciplines have become less salient, and are in any case themselves internally diverse; so that what we have is a large and complex field in which work of sharply different kinds is carried out, accompanied by debates in which a disparate collection of theoretical and methodological labels and ideas are deployed.

Some of the issues which divide educational researchers today include:

- Should research be aimed primarily at producing knowledge about educational practices and institutions, or should it be designed directly to improve those practices and institutions?
- Should it be neutral in political orientation or should it be, for example, committed to challenging inequalities (in relation to social class, gender, sexual orientation, disability, ethnicity or race, religion, etc)?
- Can it demonstrate 'what works' in terms of policy and practice, or is it limited to providing broad understandings that are, at best, of only indirect use to policymakers, practitioners, and others?
- Should the process and product of all research be under the control of specially trained researchers, or should it be pursued in partnership with participants in the setting being studied? More radically, should the latter be in control of research?
- Is qualitative evidence superior to quantitative evidence, or vice versa? Can and should these different methods be 'combined' or 'mixed'?
- Should there be criteria by which the quality of research is judged? If so, what are these?
- Can we explain social phenomena or only describe them? And, if we can explain them, do we do this via causal accounts or, say, by explicating the meanings that constitute them?
- Does research-based knowledge offer factual representations of the world or artful constructions that can offer conflicting, equally valuable pictures?

These are some of the main issues that have been, and continue to be, widely discussed. Implicated in them are diverse methodological positions and arguments.

Changing Paradigms

One common way of thinking about the methodological diversity within educational research, and beyond, employs the concept of competing 'paradigms'. The standard, everyday meaning of 'paradigm' is 'exemplar' or 'model'. But, in the context of research methodology, the term has also come to mean a set of philosophical assumptions about the phenomena to be studied, about how they can be understood, and even about the proper purpose and product of research. This sense of the term derives from the influential work of the philosopher and historian of science Thomas Kuhn. He played a major role in overturning the image of science that had prevailed for much of the twentieth century, in which it was seen as following a method that rigorously derived findings from data, findings whose validity was certain, and which cumulated to produce a single body of knowledge about the world (for more information see Appendix 1).

An older, broadly positivist, model of science had dominated social and educational research for the first half of the twentieth century, prioritising the ideal of the experiment, the use of standardised tests and ‘systematic’ observation, survey data, and statistical analysis. The influence of Kuhn’s work and other developments in the 1960s and 70s in philosophy and social science led to major changes within the field; and these changes often came to be understood in Kuhnian terms as a process of paradigm change – even though Kuhn had portrayed the social sciences as pre-scientific at best, and therefore as incapable of sustaining a paradigm, properly speaking. Where quantitative work had been dominant up until the end of the 1960s, there followed a growth in the influence of qualitative work. Furthermore, this diversified into competing, self-identifying ‘paradigms’, as new approaches were recurrently developed. These have included: symbolic interactionist ethnography, ethogenics, Marxist ethnography, ‘critical’ research, feminist inquiry (of various kinds), phenomenography, discourse analysis (of various types), and many other forms. Along with this proliferation in labelled orientations, there have been appeals to influential philosophical ideas, including for example to phenomenology, pragmatism, and postmodernism. (for clarification of these and some other philosophical terms used in discussions of paradigms, see Appendix 2).

A diversity of approaches

It is not possible to give a definitive and exhaustive list of social and educational research paradigms, not least because the labels for different approaches are not used in standard ways and do not form part of a single, well-defined typology (nevertheless, there have been attempts to produce typologies. For discussion of these, see Appendix 3.). Instead, they are usually employed by researchers in socially situated ways: to distinguish their own approach from that of others, with the same term being used in somewhat different, and sometimes conflicting, ways on different occasions.

Some distinctions amongst approaches are concerned with quite fundamental differences in view about the nature of the phenomena being investigated (ontology) and/or about how they can be understood (epistemology), and also about the purposes of research. Effectively, what are involved here are different methodological philosophies. From what is sometimes labelled as a positivist point of view, the task is to conceptualise and measure human behaviour in terms of key variables, and to discover causal relationships amongst these. From another point of view, often labelled interpretivism, the task is to understand how people see, think, and feel about the world, seeking to grasp diverse perspectives in their own terms. Here, very often, the links between perspectives and actions, and between behaviour and its effects, are seen as complex and uncertain, rather than reducible to statements about fixed relationships. Other points of view emphasise the need to engage with the forces that structure the wider society if we are to be able to understand how institutions like schools or colleges operate: this is typical of ‘critical’

approaches. There are also those who stress what they see as the constitutive role of discourse in generating not just our experience of the world, but also what actually happens within it. This is characteristic of various forms of constructionism. Moreover, cross-cutting these differences are disagreements about what the product of educational research ought to be, and about what should be the proper relationship between (indeed, about whether there should be any distinction between) researcher and researched.

There are conflicting responses to the methodological pluralism that currently prevails in social and educational research. Some believe that it is a sign of health and should be celebrated. Others regard it as having reached an undesirable level, and insist that some means must be found of generating greater methodological consensus. (for an outline of some conflicting methodological philosophies that have influenced social and educational research, and responses to methodological pluralism, see Appendix 4.)

Appendix 1

Thomas Kuhn's account of the development of science and its reception in social and educational research

The starting point for Kuhn's work was the difficulty he experienced, as someone trained in twentieth-century physics, in understanding the account of the physical world provided by the ancient Greek philosopher Aristotle. He realised that if modern physics were simply a development from earlier work then he should not have had this problem: he would have recognised some of Aristotle's ideas as sound, and even the many that were judged wrong in these terms would have been immediately intelligible as alternatives to what is now taken to be sound scientific knowledge. But this was not his experience. Recognising this problem of understanding led him to study the history of natural science from a different perspective, no longer simply looking for precursors of modern ideas and rejecting the rest as the product of misguided or irrational thinking. (In doing this he built on the work of some other historians and philosophers of science who had also moved away from this earlier 'Whig' approach to understanding how scientific knowledge had developed.)

Kuhn laid stress on the *social* character of natural science research; and, as a result, stimulated the whole field of the sociology of scientific knowledge or social studies of science; though he disapproved of much of this. He argued that scientific work, rather than being a process of logically deriving knowledge from empirical evidence, in the manner assumed by many early twentieth-century philosophers of science, necessarily relies upon shared concepts that are open-ended in character but are anchored by particular studies that are treated as exemplars. Moreover, key concepts are built into these exemplars, and together they make up what he refers to as a paradigm. Paradigms both indicate what is already known and contain 'puzzles' that require further work. He sees mature sciences like physics, or particular fields within them, as usually being dominated during any period by a single paradigm. However, over time, some puzzles prove recalcitrant and become 'anomalies'. At this point there may be a 'scientific revolution' that will eventually lead to the adoption of a new paradigm; for example, the move from Newtonian to twentieth-century physics. Some alternative theoretical and methodological ideas are always available outside the dominant paradigm, but so long as the latter is continuing to generate puzzles without accumulating severe anomalies they will be largely ignored. It is only when this paradigm begins to break down that they will be taken more seriously, and it is from them that a replacement may come.

Kuhn emphasised that the shift from one paradigm to another cannot be based on a rational appeal to common ground between the two paradigms, such as a body of established evidence, since each effectively offers a different conception of the world. His way of formulating this was to say that paradigms are 'incommensurable'. The consequence of this is that *judgment* is necessarily involved in paradigm change; in particular judgment about the chances of resolving anomalies in the old paradigm, and about the potential of the new paradigm to do this more

effectively, while also being able to account for everything covered by the old paradigm. Furthermore, these judgments are open to reasonable doubt: conflicting views can quite reasonably be adopted, and frequently are; so that paradigm change often occurs, in large part, by an older generation of scientists dying off and a new generation taking over. At the same time, Kuhn believed that, once a new paradigm has generated a body of work, it is possible to judge its claimed superiority with greater justifiable confidence and with less disagreement. Moreover, while he did not believe that scientific development involves gradual movement towards a single body of knowledge that represents reality as it truly is, he insisted that his account of the history of science did not undercut the claim that it had generated better knowledge of the world than was previously available, and that it would continue to do so in the future.

What Kuhn offered, then, was a very different picture of natural science from that which was common in the first part of the twentieth century, among both philosophers and social scientists. It is worth noting that he describes social science as being in a pre-paradigmatic state, precisely because it displays a host of competing approaches (he would not, therefore, call these paradigms). Furthermore, he expresses doubts about whether it can ever be scientific. However, this did not prevent his work being enormously influential within social science, where it was used to challenge dominant ideas about how research should be pursued, these frequently being dismissed as 'positivist'. This opened the way for a variety of new approaches, not least for the rise in influence of qualitative methods. It should be said that the use made of Kuhn's work in this context often involved some significant misinterpretations. For example, it was often read as implying that the validity of research within a particular scientific paradigm can only be judged by criteria internal to that paradigm, so that we cannot claim that later paradigms provide superior knowledge to earlier ones. This was used by some educational researchers, and qualitative social scientists more generally, to insist that their work should only be judged according to the assumptions built into the particular paradigm in which they were operating, not from any external standpoint. From this it was concluded that multiple paradigms had to be simply accepted as each 'valid in its own terms'. While some parts of what Kuhn wrote can be used to justify this inference, it was not the conclusion that he drew himself about natural science; and, as already noted, he did not believe that his account applied to social science in the first place.

Further reading

The most relevant publications by Kuhn are as follows:

Kuhn, T. S. (1970) *The Structure of Scientific Revolutions*, Second edition, Chicago, University of Chicago Press.

Kuhn, T. S. (2003) *The Road Since Structure*, Chicago, University of Chicago Press.

Not all of the, now very large, literature on Kuhn's work is entirely reliable, but see:

Bird, A. (2000) *Thomas Kuhn*, Princeton, Princeton University Press.

Geertz, C. (2000) 'The legacy of Thomas Kuhn: the right text at the right time', in *Available Light: anthropological reflections on philosophical topics*, Princeton NJ, Princeton University Press.

Hoyningen-Huene, P. (1993) *Reconstructing Scientific Revolutions: Thomas S. Kuhn's philosophy of science*, Chicago, University of Chicago Press. (First published in German in 1989)

Sharrock, W. and Read, R. (2002) *Kuhn: philosopher of scientific revolution*, Cambridge, Polity.

For introductions to the field of social studies of science, see:

Woolgar, S. (1988) *Science: the very idea*, London, Tavistock.

Collins, H. and Pinch, T. (1993) *The Golem: what everyone should know about science*, Cambridge, Cambridge University Press.

Hess, D. J. (1997) *Science Studies: an advanced introduction*, New York, New York University Press.

See also the journal *Social Studies of Science*.

Appendix 2:

Philosophical concepts used in the methodological literature, and a guide to this literature

Many philosophical terms have come to be used in the methodological literature. These often do not have agreed or straightforward meanings in philosophy, and their use by social scientists is sometimes wayward and potentially misleading. Below, the meaning of some of key terms is outlined. Following this, there is a list of useful sources for exploring the meaning of methodological and philosophical terms.

Brief glossary

Empiricism: This term refers to the belief that all knowledge comes via the senses from direct experience. In the seventeenth and eighteenth centuries it was contrasted with rationalism, which assumed that genuine knowledge was *a priori*, in other words given directly prior to and necessarily structuring sensory experience. Since that time, the meaning of 'empiricism' has shifted, coming to be treated as a label for a view of enquiry that places excessive weight on the role of empirical evidence, perhaps assuming that knowledge can be logically inferred from this; by contrast with views that stress the need for speculative thought in developing theoretical ideas, or the role of intuition or interpretation in making sense of social phenomena. 'Empiricism' has also come to be associated with an emphasis on particular sorts of empirical evidence: that which takes the form of physical description of the position, shape, movement, etc of objects and/or that which is produced by the use of explicit measurement procedures. By contrast, there are those, such as the pragmatist philosopher William James, who have called themselves empiricists but treated empirical evidence as what we experience in our everyday dealings with the world, rather than what is produced by the 'artificial' means of scientific method. Generally speaking, however, 'empiricism' has come to be used in a negative way to dismiss views judged to place excessive emphasis on the role of a narrow kind of 'scientific' evidence in the production of knowledge.

Epistemology: This is the branch of philosophy concerned with whether knowledge is possible, and if so how it can be gained and what its limits are. Epistemological argument may relate to knowledge in general or to knowledge of particular kinds. Scepticism is one, radical, epistemological view – it questions the very possibility of knowledge. It may be applied to all kinds of knowledge or just to some. For example, there are philosophers who are sceptics about the notion of ethical knowledge – concerning what is good, what ought to be done, etc – but who are *not* sceptics about factual matters – regarding what types of thing exist in the world, what sorts of relation operate among them, and so on. Another epistemological disagreement concerns whether or not a distinctive mode of inquiry is required in order to gain knowledge about human psychological and social phenomena, as against the physical phenomena studied by many natural

sciences. While epistemological issues are analytically distinct from ontological issues, the latter have implications for the former.

Ontology: This refers to enquiry into, or assumptions or theories about, the nature of what exists, including whether anything can be said to exist at all. One influential area of disagreement here concerns whether all phenomena have the same fundamental character or whether there are multiple kinds of being. Another is about whether ideas or matter are the true nature of being; or whether both exist and are of equal importance; with the latter position leading to questions about the relationship between mind and body. There are also those who argue that the character of social phenomena is fundamentally different from that of the objects and events studied by natural scientists; and the epistemological implication often drawn from this is that a distinctive approach is required in order to understand them.

Phenomenology: In general terms, this word refers to study of the appearance of things in experience. And sometimes what it means in social and educational research is detailed investigation of how people see or experience themselves and their world. However, there is often a link made to the phenomenological movement within philosophy that was inaugurated by Edmund Husserl. He believed that, in order to resolve traditional philosophical problems, it was necessary to try to describe as carefully and fully as possible *how* phenomena of different types appear in our experience. He rejected the idea that external objects simply make their impression upon us, in other words that the process of perception is a passive matter of reception. Rather, he argued, the things that we experience, whether they are real objects in the world, imaginary ones, or simply *possible* ones, are constituted through perceptual and cognitive activity that is below the level of consciousness. Only by explicating this *activity*, Husserl thought, could we come to a true understanding of the world and our place in it, and thereby provide a sound foundation for mathematics and science, as well as for ethics. Subsequent philosophers have drawn on Husserl's work and developed and transformed it in various ways, including Heidegger, Merleau-Ponty, and Sartre. Social and educational researchers have derived various lessons from phenomenological philosophy, and sometimes these have been in sharp contrast with one another; see, for example, phenomenography and ethnomethodology. (There is an entry on phenomenography in Husen and Postlethwaite's *International Encyclopedia of Education*, also available electronically at <http://www.ped.gu.se/biorn/phgraph/civil/main/1res.appr.html>; the entry on ethnomethodology in *Wikipedia* is fairly accurate.)

Positivism: This is a word that is now used in a largely negative way (which is ironic given that it was originally developed to oppose the 'negativism' that simply rejected past thought as erroneous and worthless!). Few researchers today would describe themselves as positivists. Instead, the term is generally used to dismiss what are seen as false interpretations of science, or the false assumption that *natural* science should be the model for social and educational research. The term 'positivism' was invented by the early nineteenth-century French philosopher Auguste Comte. He saw science as providing not just sound knowledge of the world but also a new worldview that

can be used as a basis for reorganising society in a more rational manner in the modern world. Science was to replace older forms of belief, including religion, on which human beings had necessarily relied in the past in making sense of and adapting to their world, and it was to take over the social functions of those forms of belief as well. In the late nineteenth century and early twentieth century positivism came to stand for a particular conception of the nature of scientific method, one which involved logically deriving scientific laws from empirical evidence. Here it overlaps with the meaning of 'empiricism'.

Postmodernism: This is a term that is employed in a variety of ways. It is sometimes used quite narrowly to refer, for example, to the views expressed by the French writer Lyotard, who actually employed it. However, frequently its reference is much broader, being a general heading for influential French philosophical writing of the 1960s and 70s. So, while Lyotard was distinctive in this context in promoting the term 'post-modern' (though its use can be traced back to architecture and the philosophy of history), the label 'postmodernist' is often now also applied to the work of others who did not use, or even rejected, the label: Barthes, Baudrillard, Cixous, Derrida, Foucault, Irigaray, Kristeva, Lacan, and others. Central to this broader meaning of the term is a rejection of what is identified as Enlightenment or modern thinking, namely a belief in the capacity of Reason to grasp the nature of reality and to provide the basis for a form of social organisation that realises human ideals. Marxism was often taken as the most advanced form of Enlightenment thinking by French writers, and much of what now comes under the heading of postmodernism was a reaction against Marxism, in particular as being responsible for the conservatism of the French Communist Party's reaction to the events of May 1968, and for the terror and oppression characteristic of Soviet society under Stalin and later. In more specific terms, the ideas associated with postmodernism in this wider sense include:

- A rejection of teleological meta-narratives, whereby history is portrayed as having an inbuilt goal, for example as going through various phases in order to achieve the progressive or dialectical realisation of authentic human nature
- A denial of humanist notions of life and society which neglect the role of what is beyond the capacity of Reason, modelled on science, to understand
- An abandonment of the idea that knowledge or understanding come through some Subject, individual or collective, which is capable of grasping the nature of reality
- A rejection of those perspectives and orientations that seek to comprehend the world in terms of universal or totalising categories, thereby tending to reduce the other to the same, or what is unknown to the framework of what is known. What is required instead, it is insisted, is an openness to what is different.
- A denial of the assumption that language, or discourse more generally, is a tool or a structure that generates coherent and clear meanings that can capture the essential nature

of reality. Instead, discourse is viewed as a force that speaks through us and constitutes who we are. Moreover, it is unstable, so that meaning is continually shifting, involves internal tensions, and is potentially deceptive, never succeeding in grasping what it claims to grasp;

- There is a rejection of claims to scientific expertise, and the model of science as emancipatory and progressive. Scientific expertise and knowledge, including that from the psychological and social sciences, are viewed as playing a central, and often a repressive, role within Western society. On this basis it is often concluded that part of the task of the intellectual should be to subvert scientific or research-based claims to knowledge and expertise. At the same time, there are sometimes appeals to new forms of science which are seen as at odds with that which is institutionally dominant. More usually, art and literature, some kinds of philosophy, and even religious mysticism, are taken as the alternative; however, the distinctions amongst these alternatives, like other distinctions, may be challenged.

These postmodernist ideas draw on what preceded them in French philosophical thought – notably structuralism and phenomenology/existentialism – as well as on nineteenth-century and early twentieth-century reactions against, and reworkings of, ‘the Enlightenment’; notably the writings of Nietzsche and Heidegger. They have taken on a distinctive character in the work of feminists, where Enlightenment thinking has been portrayed as masculinist.

A term which partially overlaps with the meaning of ‘postmodernism’ is ‘post-structuralism’. However, it is subject to many of the same problems of interpretation. For example, strictly speaking, Derrida was no more a post-structuralist than he was a postmodernist; and Foucault also denied that the label applied to him.

Pragmatism: This approach to philosophy emerged in the second half of the nineteenth century in the United States. It developed from detailed readings of German philosophy, notably the work of Kant and Hegel, though it also drew on the philosophical ideas of the medieval scholastics. The term ‘pragmatism’ is attributed to Charles Sanders Peirce, who was a practising scientist and mathematician as well as a philosopher. His views are complex, and developed considerably over his lifetime. His starting point was the idea that science involved operationalising the meaning of concepts in terms of the outcomes of experimental inquiry, this enabling conceptual distinctions that are meaningless to be dismissed. So, what was important, according to Peirce, was the practical meaning that a concept had in the context of scientific investigation. At the same time, he did not believe that concepts are simply instruments for use rather than representations of reality. The whole point of science, for him, was to produce knowledge of the world, and he believed that concepts will only work if they capture what he referred to as ‘reals’. Later pragmatists, notably William James and John Dewey, developed distinctive versions of pragmatism. Peirce sought to distance his position from that of James, who located the meaning, and the validity, of ideas in

terms of their practical value in dealing with the problems of life. More recently, the strongest influence of pragmatism on social and educational research has probably come through the controversial writings of Richard Rorty, who is often portrayed as reinterpreting pragmatism in a postmodernist fashion. However, his interpretation of pragmatism has been strongly challenged, not least by those who treat Peirce as its main source. Later philosophers self-identifying as pragmatists adopt quite diverse positions, examples including Haack, Misak, and Brandom.

Realism: There are many different interpretations, and kinds, of realism (an influential one in some fields of social research is 'critical realism', deriving from the writings of Roy Bhaskar). Broadly speaking, the term refers to views about or approaches to research which assume that the phenomena being investigated exist and have features that are independent of the expectations, interpretations, etc of the researcher. Practically speaking, most research has been realist in this sense. However, there have been those who have raised questions about whether the phenomena to which research texts refer can be said to exist, or have the character they are claimed to have, independently of the particular framework of assumptions or the set of methods employed by the researcher. This is a form of anti-realism, but what that term means depends upon the kind of realism that is being rejected.

Relativism: Generally speaking this term refers to the idea that any knowledge or judgment about the truth of knowledge claims necessarily operates within a particular framework of assumptions, and that there are always alternative frameworks that others may adopt, in which quite different conclusions can be drawn about what counts as knowledge, in other words about what is true. Furthermore, there is, and can be, no external, overarching or underlying framework in terms of which the validity of different frameworks of assumptions can be assessed. These frameworks may be associated with different cultures, though they need not be. Relativism can be global, being applied to all kinds of knowledge, experience, feeling, etc, or it can refer to just some kinds of purported knowledge. For example, many people are moral relativists, believing that what is good or right varies across cultures or among individual people (for example, that this is a matter of personal interpretation). However, they do not necessarily believe that the truth of factual claims about the world – what exists, what happened, why, etc – is framework-relative. Relativism is an epistemological view, but it can also be presented in ontological form, as when people claim that there are 'multiple realities'. 'Relativism' is sometimes treated as a negative, dismissive label; however, there are those who apply this label to their own views and defend the position.

Guide to the reference literature on methodology and philosophy

Quite a range of dictionaries and encyclopaedias are available dealing with research methodology and relevant philosophical concepts. These may be of use in clarifying the meaning of terms and/or providing further information and references about particular issues. As might be expected, the dictionaries usually provide relatively short entries, the encyclopaedias fuller accounts and

more references. Please note that the accuracy of entries in the resources listed below is somewhat variable, so critical caution is required in using them.

Print Materials

Dictionaries relating to research methodology

Most of these dictionaries cover the whole field of research methodology, though they vary somewhat in their balance of coverage.

Jupp, V. (ed.) (2006) *The Sage Dictionary of Social Research Methods*, London, Sage.

Miller, P. McC. and Wilson, M. J. (1983) *A Dictionary of Social Science Methods*, Chichester, John Wiley.

Miller, R. L. and Brewer, J. D. (eds.) (2003) *The A-Z of Social Research*, London, Sage.

Payne, G. and Payne, J. (2004) *Key Concepts in Social Research*, London, Sage.

For dictionaries of statistical terms, see:

Everitt, B. and Wykes, T. (1999) *A Dictionary of Statistics for Psychologists*, London, Hodder-Arnold.

Nelson, D. (2004) *The Penguin Dictionary of Statistics*, Harmondsworth, Penguin.

Upton, G. and Cook, I. (2006) *A Dictionary of Statistics*, Oxford, Oxford University Press.

For a dictionary of terms specifically relating to qualitative research, see

Schwandt, T. (2007) *The Sage Dictionary of Qualitative Inquiry*, Third edition, Thousand Oaks CA, Sage.

Encyclopaedias

A relatively comprehensive and specialist encyclopaedia on social research methodology is:

Lewis-Beck, M., Bryman, A., and Liao, T. F. (eds.) (2004) *The Sage Encyclopedia of Social Science Research Methods*, Thousand Oaks CA, Sage. (Several volumes)

Entries in this encyclopaedia vary in their level of technical difficulty.

You may also find relevant entries in the following general social science encyclopaedias:

Smelser, N. J. (ed.) (2001) *International Encyclopedia of the Social and Behavioral Sciences*, Amsterdam, Elsevier. (Several volumes)

Sills, D. L. (ed.) (1968) *International Encyclopedia of the Social Sciences*, New York, Macmillan. (Several volumes)

Ritzer, G. (ed.) (2006) *The Blackwell Encyclopedia of Sociology*, Oxford, Blackwell. (Several volumes)

Encyclopaedias in education and educational research also contain some relevant entries, see:

Alkin, M. (ed.) (1992) *Encyclopedia of Educational Research*, New York, Macmillan.

Husén, T. & Postlethwaite, T. N. (eds.) (1994) *The International Encyclopedia of Education*. Second edition, Volume 8. Oxford, Pergamon.

McCulloch, G. and Crook, D. (eds.) (2008) *The Routledge International Encyclopedia of Education*, London, Routledge.

See also Delamont, S. (ed.) (2012) *Handbook of Qualitative Research in Education*, Cheltenham, Edward Elgar.

Dictionaries and Encyclopaedias of Philosophy

There are a large number of dictionaries and encyclopaedias in this field. Most of them are reasonably accurate, though they vary in their helpfulness, for example according to how much background knowledge they assume.

Useful general sources on modern thought include the following:

Bullock, A., Stallybrass, O., and Trombley, S. (eds.) (2000) *The New Fontana Dictionary of Modern Thought*, London, Fontana.

Outhwaite, W. (ed.) (2006) *The Blackwell Dictionary of Twentieth Century Social Thought*, Second edition, Oxford, Blackwell/Wiley.

As regards philosophy more specifically, useful sources to consult initially are:

S. Blackburn (2007) *The Oxford Dictionary of Philosophy*, Second edition, Oxford, Oxford University Press.

Mautner, T. (1999) *The Penguin Dictionary of Philosophy*, Harmondsworth, Penguin.

Other sources include:

Audi, R. (ed.) (1999) *The Cambridge Dictionary of Philosophy*, Cambridge, Cambridge University Press.

Craig, E. (ed.) (1998) *The Routledge Encyclopaedia of Philosophy*, London, Routledge. (Several volumes. There is also a Concise or Shorter, single volume, version of this encyclopaedia.)

Edwards, P. (ed.) (1973) *The Encyclopedia of Philosophy*, New York, Macmillan. (Several volumes)

Honderich, T. (1995) *The Oxford Companion to Philosophy*, Oxford, Oxford University Press.

For a useful reference book on postmodernist thought, see:

Sim, S. (1998) *The Icon Critical Dictionary of Postmodern Thought*, Cambridge, Icon Books. (second edition published as *The Routledge Companion to Postmodernism*, London, Routledge, 2004.)

An alternative is: Taylor, V. E. and Winquist, C. E. (eds.) (2003) *Encyclopedia of Postmodernism*, London, Routledge.

Also useful here is Kritzman, L. (ed.) (2006) *The Columbia History of Twentieth Century French Thought*, New York, Columbia University Press.

For a dictionary relating to 'critical' approaches, see Macey, D. (2000) *The Penguin Dictionary of Critical Theory*, London, Penguin.

Online Sources

There are not many online sources for clarification of methodological terms used in social and educational research. However, there are some relevant entries in the Online Dictionary of the Social Sciences, which can be found at: <http://bitbucket.icaap.org/dict.pl> (accessed 03/10/07)

There are some reliable, and many less reliable, sources of information about philosophy on the internet. A reasonably reliable source is the Stanford Encyclopedia of Philosophy, which can be found at: <http://plato.stanford.edu/> (accessed 03/10/07). Also of value is the Internet Encyclopedia of Philosophy, which can be found at: <http://www.iep.utm.edu/r/>. The Meta-Encyclopedia of Philosophy compares the entries on the same topics across several online resources. This can be found at: <http://www.ditext.com/encyc/frame.html> (accessed 03/10/07)

Wikipedia can also be useful, though the quality of the entries is more variable. This can be found at: http://en.wikipedia.org/wiki/Main_Page (accessed 03/10/07)

Appendix 3

Typologies of Social and Educational Research

Some classifications of methodological approaches in social and educational research are quite abstract, distinguishing between just two or three competing alternatives. It is very common, for example, to find discussions that operate in terms of quantitative versus qualitative, or positivist versus interpretive, approaches (for discussion of the first of these, see Bryman 1988, Brannen 1992, Hammersley 2012). Other commentators have distinguished three approaches, with 'critical' research often being introduced as distinct from the other two (examples of this in the social science literature include: Fay 1975; Outhwaite 1975; and Bernstein 1976. For examples in the field of education see Popkewitz 1984; Guba 1990 and Guba and Lincoln 1995). More recently there have been updated versions of this typology. For example, in 2005 Guba and Lincoln identified three 'postmodern' approaches, these being defined as alternatives to the modernism of positivism/postpositivism. These alternatives are: 'critical theory', 'constructivism', and 'participatory' research. At the same time, these authors emphasise the 'blurring' of distinctions among 'postmodern' paradigms and their 'interbreeding' (Guba and Lincoln 2005). Furthermore, more recently, there have been attempts to portray mixed methods as a new paradigm, albeit with recognition that it can be underpinned by divergent methodological philosophies (see, for example, Tashakkori and Teddlie 2010). It must be said that by no means all educational researchers would accept these abstract accounts of methodological variation within the field; they are often dismissed as simplistic and/or as involving important omissions.

Other writers have provided more concrete typologies of educational research, identifying a greater number of approaches, and sometimes picking out the sorts of work going on in a particular context at a particular time. For instance, in the United States in the 1980s, Jacob distinguished 6 traditions: human ecology, ecological psychology, holistic ethnography, cognitive anthropology, ethnography of communication, and symbolic interactionism (Jacob 1987 and 1988). Examining the situation in the UK in the 1970s and 80s, Atkinson et al distinguished 7 approaches, showing little overlap with Jacob's typology: symbolic interactionism, anthropology, sociolinguistics, ethnomethodology, qualitative evaluation, neo-marxist ethnography, and feminist research (Atkinson et al 1989/1993; see also Jacob 1989, Buchmann and Floden 1989, and Lincoln 1989). While neither of these typologies focuses exclusively on methodology, this nevertheless is an important aspect of the differences among the approaches identified. If this sort of typology were to be developed for the past decade additional approaches would probably be identified. These might include various forms of action or practitioner research, sociocultural approaches influenced by Vygotsky and Activity Theory, postmodernist work, neo-positivist work concerned with identifying 'what works', and so on. However, typologies of this kind are also contentious, what they distinguish is rarely as clearly delineated as they imply, there are questions that can be raised about the characterisation of particular approaches, and there will almost always be omissions that some will think are important.

Within social science more generally, some relatively concrete typologies have been provided by authors of introductory texts on qualitative research. An example is Cresswell 2006, who distinguishes the following: narrative research, phenomenological research, grounded theory, ethnography, and case study. Somekh and Lewin (2011) identify a much wider range of approaches, both quantitative and qualitative: from statistical modelling to deconstruction. As with most of the other typologies, the distinctions made in these two sources are also open to question, but the second offers a laudably catholic range of methods.

There is no single, all-purpose way of drawing distinctions among the various approaches that can now be found within the field of educational research (see Hammersley 2008). Rather, different typologies, operating at different levels of abstraction and focusing on various lines of distinction, will need to be adopted on different occasions for different purposes. Furthermore, great care needs to be exercised in thinking about different types of work in the field, not only to avoid misdescription and significant omission but also the danger of presenting the differences as clearer and more fixed than they actually are.

References

- Atkinson, P., Delamont, S., and Hammersley, M. (1988) 'Qualitative research traditions: a British response', *Educational Researcher*, 58, 2, pp231-50. (Partially reprinted with some correction in Hammersley, M. (ed.) *Educational Research: current issues*, London, Paul Chapman, 1993)
- Bernstein, R. (1976) *The Restructuring of Social and Political Theory*, London, Methuen.
- Brannen, J. (ed.) (1992) *Mixing Methods: Qualitative and quantitative research*, Aldershot, Avebury.
- Bryman, A. (1988) *Quantity and Quality in Social Research*, London, Allen and Unwin.
- Buchman, M. and Floden, R. E. (1989) 'Research traditions, diversity and progress', *Review of Educational Research*, 59, 2, pp241-48.
- Cresswell, J. W. (2006) *Qualitative Inquiry and Research Design*, Second edition, Thousand Oaks CA, Sage.
- Fay, B. (1975) *Social Theory and Political Practice*, London, Allen and Unwin.
- Guba, E. G. (ed.) (1990) *The Paradigm Dialog*, Newbury Park, Sage.
- Guba, E. G. and Lincoln, Y. S. (1995) 'Competing paradigms in qualitative research', in Denzin, N. K. and Lincoln, Y. S. (eds.) *Handbook of Qualitative Research*, Thousand Oaks CA, Sage.

- Guba, E. G. (2005) 'Paradigmatic controversies, contradictions, and emerging confluences', in Denzin, N. K. and Lincoln, Y. S. (eds.) *Handbook of Qualitative Research*, Third edition, Thousand Oaks CA, Sage.
- Hammersley, M. (1984) 'The Paradigmatic Mentality: a diagnosis' in L Barton and S Walker (eds.) *Social Crisis and Educational Research*, Croom Helm, pp230-55.
- Hammersley, M. (1992) 'The Paradigm Wars: Reports from the front', *British Journal of Sociology of Education*, 13, 1, pp131-43.
- Hammersley, M. (2008) 'Educational research', in G. McCulloch and D. Crook (eds.) *The Routledge International Encyclopedia of Education*, London, Routledge, 2008.
- Hammersley, M. (2012) *What is Qualitative Research?*, London, Bloomsbury.
- Jacob, E. (1987) 'Qualitative research traditions: a review', *Review of Educational Research*, 57, 1, pp1-50.
- Jacob, E. (1988) 'Clarifying qualitative research: a focus on traditions', *Educational Researcher*, 17, 1, pp16-19 and 22-24.
- Jacob, E. (1989) 'Qualitative research: a defense of traditions', *Review of Educational Research*, 59, 2, pp229-35.
- Lincoln, Y. S. (1989) 'Qualitative research: a response to Atkinson, Delamont and Hammersley', *Review of Educational Research*, 59, 2, pp237-9.
- Outhwaite, W. (1975) *Understanding Social Life*, London, Allen and Unwin.
- Popkewitz, T. (1984) *Paradigm and Ideology in Educational Research*, London, Taylor and Francis.
- Somekh, B. and Lewin, C. (eds.) (2011) *Research Methods in the Social Sciences*, Second edition, London, Sage.
- Tashakkori, A. and Teddlie, C. (eds.) (2010) *Handbook of Mixed Methods in Social and Behavioral Research*, Second edition, Thousand Oaks CA, Sage.

Appendix 4

An outline of Methodological Philosophies

What will be offered here is a fairly abstract typology of methodological philosophies, one that uses a small number of labels that are commonly employed today, and that apply across social science generally. It distinguishes between positivist/post-positivist, interpretivist/hermeneutic, 'critical', and constructionist orientations. However, it is not being suggested here that there are just four basic kinds of research: each of these labels covers a variety of approaches; the typology does not exhaust all the differences in methodological views among social scientists; and, in practice, many researchers draw on more than one orientation. It must be remembered, then, that this is not the only way to make sense of differences in methodological orientation within the field of educational research, and it should not be treated as anything more than a rough guide.

While this typology is generic, is not exhaustive, and does not capture an absolutely distinct set of internally homogeneous approaches, it does pick out many of the most important dimensions on which social and educational research currently varies in methodological terms. These relate to differences in ontological and epistemological assumptions – about the nature of the phenomena being investigated and how they can be understood – and about what the product of research is or should be.

Positivism/post-positivism

While the word 'positivism' is used today as little more than a term of abuse, this was not always so; and, in historical terms, we can identify some characteristic assumptions on the part of positivists:

1. Science is the only reliable source of knowledge.
2. The methods used in the natural sciences – especially physics and chemistry – are therefore the appropriate model for social and educational research.
3. Science involves logically inferring clearly specified laws about the behaviour of phenomena from evidence, and/or testing them against it.
4. These laws state what effects a specific sort of change in a set of variables always produces, or what it tends to produce with a specified level of frequency.
5. The evidence must be in some sense empirically given, for example by means of direct observation, questionnaire responses, etc.

6. In order for such observation to be sound, 'subjective' factors must be eliminated from the research process as far as possible, notably by following explicit and standardised procedures that are open to replication by others.
7. Also required is experimental control of variables, or some effective substitute for this. Both the explanatory variable and confounding variables – in other words, those which might also affect the outcome variable – must be controlled in some way. This can be attempted physically, through experimental manipulation, or via statistical analysis.
8. Sound investigation requires the quantitative measurement of variables, since only this will allow us to detect any changes in outcome produced by variation in the explanatory variable(s).

These various assumptions do not necessarily go together, and several varieties of positivism can be identified (see Halfpenny 1982).

It is perhaps important to note that, today, 'positivism' is sometimes defined as assuming that a real world exists independently of the research process to which the findings produced correspond. This is not, however, a very helpful definition, for two reasons. First, there have been those who labelled themselves positivists, notably some logical positivist philosophers and social scientists committed to 'operationism' in the first half of the twentieth century, who did not accept this assumption. They rejected the idea that we could make claims about anything beyond direct sensory experience or scientific measurements (for a more recent, and highly sophisticated, position along these lines, see van Fraassen 1980 and 2002). Second, this assumption – about the independent existence of phenomena beyond our accounts – is more commonly labelled as realism, and by no means all anti-positivists are anti-realists (for a very clear account of the differences between positivism and realism, see Keat and Urry 1975).

A related issue concerns whether quantitative research is necessarily positivist. Much depends here on how 'quantitative research', as well as 'positivism', is defined. Certainly, research that uses numerical data of some sort does not need to be, and has not always been, committed to the positivist assumptions outlined above; either explicitly or implicitly. On the other hand, the motive for using already available quantitative data, such as that published in official statistics, or producing numerical data for research purposes, has often involved at least some of the assumptions identified here as positivist.

There have been a variety of criticisms of social and educational research inspired by positivism, coming from different directions. For example:

- That it has been unsuccessful in producing the kind of reliable knowledge it promised, and that this indicates error in its fundamental assumptions: for example that there are data that are simply given, and therefore whose validity can be treated as absolutely certain.

- That it operates on a false conception of scientific method, one that does not even capture what natural scientists actually do.
- That it fails to take account of the distinctive character of human social life – for example that this involves meanings – which requires quite a different approach if what people do and why is to be properly understood.
- That it fails to recognise the role of the researcher in constructing the phenomena portrayed in data and findings, and the role of narrative and rhetoric in research reports.
- That it serves the socio-political status quo by portraying what currently exists as natural and inevitable and/or that it fosters forms of purported expertise that support the dominant forces in society.
- That it is dehumanising, in that it encourages the treatment of people solely in numerical or aggregate terms.

There is force in some of these criticisms, though none of them should be accepted at face value: positivists have responded to all of them, with varying degrees of persuasiveness.

The term 'post-positivism' is currently used in at least two ways. Sometimes it is taken to refer to all the various paradigms that began to flourish after the sharp decline in influence of positivism during the 1970s. Often, though, it has a more specific meaning, referring to a position that recognises the various criticisms that came to be made of positivism but which retains key elements of its orientation: notably, commitment to the value of a scientific approach in the field of educational enquiry, belief in the possibility of some forms of measurement, and the need for controlled comparison. This second sense is the one defended by Phillips and Burbules (2000) in their book on this topic.

In these terms, what post-positivists reject in positivism is the idea that there can be some foundation of data from which valid knowledge claims can be logically inferred, and perhaps also the assumption that there is a standard 'scientific method' appropriate in all sciences. At the same time, post-positivists insist that, while any knowledge produced is inevitably fallible, this does not mean that all knowledge claims are equally likely to be false. In other words, they argue that, while there is no indubitable foundation for knowledge, this should not lead us to conclude that we ought to be equally sceptical of all knowledge claims (epistemological scepticism), or that the validity of knowledge claims is always relative to cultural or theoretical frameworks (epistemological relativism).

Interpretivism or hermeneutics

Within the social sciences, the conflict between positivism and interpretivism dates from at least the middle of the nineteenth century, though it only arose clearly within the field of educational research in the second half of the twentieth century. A common starting point for interpretivism is an insistence that there is a fundamental difference between the nature of the phenomena investigated by the natural sciences and those studied by historians, social scientists, and educational researchers. This is that people – unlike atoms, chemicals, or even most non-human forms of life – interpret or give meaning and value to their environment and themselves, that the ways in which they do this are shaped by the particular cultures in which they live, and that this generates the actions and institutions in which they participate. Thus, quite different forms of social organisation, ways of life, beliefs about and attitudes toward the world, can be found; both at different times in history and coexisting (peacefully or otherwise) at any one time. Furthermore, this is not just a matter of differences among large-scale societies, there is also significant cultural variation *within* the massive, complex societies (increasingly affected by global relationships and trends) in which most of us now live.

So, in methodological terms, interpretivists argue that we cannot understand why people do what they do, or why particular institutions exist and operate in characteristic ways, without grasping how those involved interpret and make sense of their world: in other words without understanding the distinctive nature of their perceptions, beliefs, attitudes, and so on. Furthermore, this requires an openness on the part of the researcher in which prior cultural assumptions and attitudes are suspended, and there is a willingness to learn the culture of the people being studied. As a result of this, normally, interpretivists adopt or recommend qualitative methods, such as ethnography, in-depth or unstructured interviewing, or analysis of documents in the manner of the historian or the literary critic.

The term ‘hermeneutics’ refers to methodological ideas that were developed in reflecting on the task of interpreting texts, over the course of several centuries (see the entry in Jupp 2006.) These have been an important influence on interpretivism in social science, in some of its forms. Initially the focus of hermeneutics was on the interpretation of religious and other texts from the past, and the primary concern was with clarifying obscure, ambiguous, or otherwise problematic, passages. However, in the nineteenth century this focus was broadened to include interpretation of any kind of texts, indeed it came to be argued that all human discourse and actions must be read as texts. Nineteenth-century hermeneutics sought to develop a new kind of science appropriate for understanding human social life, primarily in the context of historiography. By contrast, the most influential approach in the twentieth-century, Gadamer’s ‘philosophical hermeneutics’, rejects the model of science and is primarily concerned with learning from ancient philosophical texts. It emphasises how interpretation is always based upon presuppositions and is therefore always shaped by the particular socio-historical location of the interpreter. Some commentators conclude that this implies a form of relativism, but this has been disputed.

On some interpretations, interpretivism can lead towards forms of action research where the researcher-researched relationship is turned into something like a partnership, or where the focus is on the improvement of professional practice and/or the personal development (*Bildung*) of an individual. This has been stimulated, for example, by commitment to teaching as a form of extended professionalism. And it is sometimes associated with the idea that, by definition, educational research must itself be educative in character, that it should be concerned with realising educational ideals or achieving educational outcomes, rather than simply producing educationally-relevant knowledge (Stenhouse 1974; see also Hammersley 2003). Somewhat similar conclusions can be reached via ethical ideas about how others should be treated, whether formulated in terms of rights or an ethics of care. This is exemplified within 'the new social studies of childhood', where there have been moves from researchers insisting on the need for children's voices to be heard to children themselves carrying out research (see Kellett 2005).

A variety of criticisms have been made of interpretivism, from various angles:

- That the sort of descriptions it encourages are too vague or variable to provide a sound basis for comparing the orientations of different people, the character of different situations or institutions, and so on.
- That it provides no means of showing that one set of factors, rather than another, played a key role in bringing about particular outcomes.
- That it encourages study of a small number of cases, perhaps just one, thereby failing to provide a platform for broader conclusions, the latter being essential in social science.
- That it assumes that the key explanatory factors are always cultural, rather than material or social structural.
- That it treats meanings as psychological factors that are inside people's heads and only accessible for research purposes by a process of intuition on the part of the researcher.
- That, in relation to analysis and writing up, it leads to a preoccupation with producing a coherent and newsworthy narrative, rather than with checking the validity of the interpretations produced.
- That it claims a form of understanding which effectively reduces the different to the same; in other words, understanding is defined as reducing the strange to the familiar.
- That, in its traditional forms, it implies the standpoint of the spectator, or even the voyeur, rather than genuine engagement with the people being studied.
- That in its partnership or action research form it displaces scientific research into professional or personal development.

These criticisms have varying degrees of force, depending upon the particular ways in which interpretivism or hermeneutics is interpreted. Furthermore, like all criticisms, they themselves involve assumptions which may be open to question.

'Critical' research

When reference is made to 'critical research', the word 'critical' is being given a distinctive meaning. There is an important sense in which all academic work is critical: it is concerned with assessing knowledge claims of various kinds. However, 'critical' research explicitly extends this process of assessment to social practices and institutional arrangements, and the evaluation of these is usually in terms of some notion of equity or social justice. Furthermore, as a matter of fact, the conclusions reached are generally negative: showing up injustices that had previously been overlooked or identifying causes of inequity that had earlier gone unrecognised or been given insufficient emphasis. This kind of evaluation is, of course, common in public discussion: it is the very stuff of politics. However, critical research sees social science as playing a key oppositional role in political terms, for example as being able to capture the real social forces involved, whereas commonsense views are regarded as frequently distorted by ideology, by misconceptions that are socially generated so as to disguise injustice and its causes.

The immediate origin of this meaning of 'critical' was the Critical Theory of what has come to be referred to as the Frankfurt School of Marxism. A key source here is Horkheimer's essay 'Traditional and critical theory' (Horkheimer 1972). Critical theory drew on the work of Hegel as well as Marx. For Hegel, natural science was not the proper model for inquiry and knowledge, and especially not for understanding human social life. However, whereas many interpretivists accepted the positivist account of *natural* science as accurate, Hegel challenged this. For him it did not provide a sound guide for investigating even the physical world. Indeed, he argued that in order for scientific knowledge to become true knowledge it needed to be located within, and reformed by, a comprehensive philosophical system of the kind that he himself was seeking to develop.

This points to the first important element of a critical approach: that research must be framed in terms of a comprehensive perspective on society, and must be designed to contribute to the development of that perspective. Indeed, to a large extent, the validity of research findings should be judged by whether they can be integrated into a developing framework of this kind. A second key feature of a critical perspective, derived more from Marx, is that this comprehensive perspective is seen as providing a practical guide for transforming society. One effect of this is to tie research very closely to ethical and political concerns. The idea that research can be detached from these, that it can or should attempt to be 'value neutral', is dismissed by critical researchers as either an ideological disguise or as self-delusion. It should, perhaps, be noted, however, that this does not automatically imply a rejection of science. While some early 'critical' theorists, and

many 'critical' researchers today, downplay or abandon that label, there are still those who follow Marx in being committed to the scientific study of human societies, for the purpose of their transformation.

Critical researchers today inherit quite a lot from Critical Theory. They are usually committed to doing research that is based on, and is designed to contribute to, a more comprehensive or fundamental understanding the world than that available to commonsense, and one that is geared to abolishing particular kinds of social division. This requires that the phenomena investigated should be studied against the background of the wider socio-historical context, since only by changing this will social division be overcome.

Early forms of critical research tended to rely upon background assumptions taken from Marxism to the effect that societies develop through class conflict towards the achievement of a form of society (socialist or communist) in which all injustice is overcome and human ideals are realised. However, more recent forms of critical research have tended to abandon this kind of historicist meta-narrative, in favour of a more specific concern with identifying forms of inequality taken to be inequitable, their causes and consequences. Moreover, they have also broadened the focus to address not just social class differences, but also inequalities in terms of gender, ethnicity and race, sexual orientation, and disability. The focus has often been on how social institutions, including the education system, generate injustices through discrimination and/or legitimate them through implying that they arise through fair competition based on merit. This is true not only of work on social class differences in educational achievement and outcome, but also feminist and anti-racist research focusing on gender and ethnic differences, and some of the work concerned with special education which seeks to challenge ideas and practices that are seen as obstacles to full inclusion of children with special needs.

The methodological implications of a 'critical' orientation can be minimal, involving little steerage towards one kind of method rather than another. For example, studies under this banner have employed both quantitative and qualitative methods. However, a key element of the approach is to treat the expressed views or experience of informants as at least potentially ideological in character, and therefore as misconceived. Emphasis is placed on analysis of all data in terms of a theory about the structure of the wider society and how this can generate false appearances, either directly through conscious bias deriving from interests or indirectly through processes that are below or outside the consciousness of the people involved. Furthermore, over time, there has also been a tendency to see methods of data collection as implying particular forms of social relation that can themselves be judged as more or less equitable. In general, this has tended to lead to the use of qualitative methods, and sometimes also (as with interpretivism) to forms of action research or participatory inquiry in which any role distinction between researcher and researched is weakened if not abolished. However, there is a potential conflict here with the idea that participants' views may be ideological, and that a research perspective is required to see through ideology.

As with the other approaches, the criticisms that have been made of critical research vary in their cogency. They include:

- That prior assumptions are made about the nature of the phenomena being investigated which operate as a form of bias, leading to particular interpretations of the data being preferred and negative evidence being overlooked.
- That the main preoccupation is to produce an account which will have desirable political consequences, rather than seeking to ensure its validity.
- That, implicitly even if not explicitly, critical research operates within a grand meta-narrative which reduces all difference to inequality (perhaps even of one type) and seeks to erase it.
- That material interests tend to be given excessive weight in explaining actions and the operation of institutions.
- That 'critical' research draws evaluative conclusions from factual data without spelling out or justifying the value assumptions on which it relies.
- That the criticisms it makes of social practices and institutions are unworldly, in the sense that they neglect the practical constraints under which all agents operate, some of which derive from basic characteristics of the human situation, such as scarcity of resources and the relativity of desire and aspiration.

Constructionism

The word 'constructionism' has become widely used in educational research, and in the social science literature more generally, over the past 20 or 30 years. Another term, 'constructivism', is sometimes employed in similar ways, and is particularly common in psychology. These terms refer to a range of ideas, and so this is probably the most heterogeneous category of the four (see Burr 2003).

In psychology, the term 'constructivism' refers to approaches to the study of cognition that reject the idea that this involves a passive registering of, and learned responses to, stimuli. More recent forms of constructivism in psychology have emphasised the socio-cultural aspects of perception and cognition: that what sense people give to situations is shaped by and shapes local cultures.

Within sociology, constructionism partly developed out of the idea that the social world is ongoingly constructed and re-constructed through the use of symbols in the course of human beings' interactions with one another (a view referred to as 'symbolic interactionism', see Blumer 1969; also Berger and Luckmann 1969). From this point of view, constructionism can involve a radicalisation of interpretivism, with increased emphasis on how different cultures formulate the

world symbolically in diverse ways, so that there are multiple, constructed, realities – rather than a single reality existing behind the different interpretations. Indeed, constructionists sometimes challenge the assumption that understanding other people, and perhaps even oneself, is possible; at least in the terms assumed by interpretivism. In other words, we cannot have direct access to meanings, even our own.

Also influential on constructionism have been phenomenology and structuralism in continental philosophy, and their radicalisation by post-structuralists. Here what is emphasised is the constructed character of the world as experienced; and in the case of structuralism and post-structuralism, the role of discourses in this process. This has been taken to indicate a quite different approach from previous ones within social and educational research, focusing on how phenomena are ‘constructed’ in and through discourses, rather than being caused by institutional inputs and outputs, or by patterns of social interaction; though, in practice, constructionists have not always broken completely with these older views. Constructionism can also be applied to the process of research itself; though this is relatively rare. Here, any claim on the part of researchers to document reality is subverted by showing how, for example, the modes of writing they employ themselves constitute the phenomena that are reported as real.

What is distinctive about constructionism, as the term is being used here, then, is that it takes the view that social phenomena can only be understood by describing *the processes by which* they are culturally constituted as the things that they are. What is involved, if this approach is followed through consistently, is a fundamental re-specification of the goal of inquiry from that which is characteristic of mainstream social science. The focus becomes, not the phenomena themselves, and certainly not what might have caused them or what effects they have, but rather the structures or processes by which they are discursively produced by culture members *in situ* and over time. Moreover, there is a tendency to see the relations between these structures or processes and their products as internal or logical, rather than as causal, in character.

In methodological terms, constructionism generally leads to an emphasis on analysing discourse, whether that which is found in documents of various kinds or in audio- or video-recordings of social interaction. And the concept of discourse here has sometimes been extended to incorporate visual representations. Not only is constructionism generally taken to rule out the use of quantitative methods, but even the standard methods employed by qualitative researchers are adopted only selectively. For example, there is a tendency either to reject the use of interviews completely or to insist that the data they produce can only be analysed in terms of the discursive practices displayed. In other words, they should not be treated as tapping informants’ knowledge of the world or as documenting stable attitudes or perspectives that routinely guide their behaviour (see Hammersley 2008:ch5).

Criticisms made of constructionism, from various directions, include the following:

- That it ignores the real world, in particular social structural constraints, suggesting that people are free to construct alternative realities through discursive practices.
- That in some versions it obliterates agency, through presenting people's very identities as discursively constructed by forces beyond their control.
- That it focuses on trivial matters, and cannot illuminate the important issues that are of high educational and social relevance
- That it encourages a detachment from human social life, of either a scientific or a frivolous kind.
- That it is self-undermining; since, if it is applied consistently, and therefore to the research process itself, the latter becomes a matter of free invention.
- That in its most radical forms it is self-indulgent, since the only possible focus becomes the researcher her or himself.

Whether or not these criticisms hit the target varies across the different kinds of work influenced by constructionism, and these have been subject to considerable debate. Both the criticisms and the defences offered against them require careful scrutiny.

Conclusion

The recurrent disputes generated by the methodological divisions outlined here have often been labelled 'paradigm wars'. This metaphor was developed by Gage, in what he described as 'a "historical" sketch of research and teaching since 1989', written in future historical mode, outlining not just the competing paradigms of the 1980s but also various possible scenarios as to whether and how the wars would be resolved (Gage 1989). Over the intervening period, there has been much discussion as to whether the wars have been, or can be, replaced by détente (Bryman 2008). The outcome is still uncertain. Furthermore, there are conflicting views about what the outcome ought to be (see, for example, Hodkinson 2003 and Hammersley 2005).

What distinguishes the four broad approaches I have outlined are assumptions about the nature of the social world and how it can and should be understood; and also, to some extent, about what research can provide and what should be its goal. It is worth repeating that there is no suggestion that all social and educational research corresponds to one, and only one, of these types. The claim is a much weaker one: that most current research will be found to correspond in many respects to at least one of these approaches. As we have seen, there is some internal variability within each of the approaches, and many researchers have been influenced by more than one of them. Influence here is not limited to conscious adherence. The ideas associated with these four

approaches are 'in the air' and so it is possible to adopt them without being aware of where they came from or of the names that are often given to them.

It is important that social and educational researchers are aware that the methodological assumptions on which they rely could be problematic. Moreover, the fact that any assumption is contested in the field is a sign that it may be open to reasonable doubt and could lead research astray. However, while use of the methodological and philosophical literature, along with reflection on one's assumptions, is an important, and often neglected, element of research work, it cannot in itself determine what are and are not productive working assumptions about the phenomena being investigated and how they can best be understood. To some extent, this must be decided in pragmatic terms, on the basis of using particular research strategies and reflecting on what they have achieved and can achieve.

References

Berger, P. and Luckmann, T. (1969) *The Social Construction of Reality*, London, Penguin.

Blumer, H. (1969) *Symbolic Interactionism*, Englewood Cliffs NJ, Prentice-Hall.

Bryman, A. (2008) 'The end of the paradigm wars?', in P. Alasuutari, J. Brannen and L. Bickman (eds) *Handbook of Social Research* (London: Sage) pp. 13-25.

Burr, V. (2003) *Social Constructionism*, Second edition, London Routledge.

Gage, N. L. (1989) 'The paradigm wars and their aftermath', *Educational Researcher* 18, pp4-10. (Reprinted in M. Hammersley (ed.) *Educational Research and Evidence-based Practice*, London , Sage, 2007.)

Halfpenny, P. (1982) *Positivism and Sociology*, London , Allen and Unwin.

Hammersley, M. (2003) 'Can and should educational research be educative?', *Oxford Review of Education*, 29, 1, pp3-25.

Hammersley, M. (2005) 'Countering the "new orthodoxy" in educational research: a response to Phil Hodkinson', *British Educational Research Journal*, 31, 2, pp139-55.

Hammersley, M. (2008) *Questioning Qualitative Inquiry*, London, Sage.

Hodkinson, P. (2003). "Research as a form of work: expertise, community and methodological objectivity", *British Educational Research Journal*, 30, 1, pp9-26.

Horkheimer, M. (1972) 'Traditional and critical theory', in *Critical Theory: Selected essays*, New York, Seabury Press. [This essay was first published in German in 1937.]

Jupp, V. (ed.) (2006) *The Sage Dictionary of Social Research Methods*, London, Sage.

Keat, R. and Urry, J. (1975) *Social Theory as Science*, London, Routledge and Kegan Paul.

Kellett, M. (2005) *How to Develop Children as Researchers*, London, Paul Chapman.

Phillips, D. C. and Burbules, N. C. (2000) *Postpositivism and Educational Research*, Lanham MD, Rowman and Littlefield.

Stenhouse, L. (1974) *An Introduction to Curriculum Research and Development*, London, Heinemann.

van Fraassen, B. C. (1980) *The Scientific Image*, Oxford, Oxford University Press.

van Fraassen, B. C. (2002) *The Empirical Stance*, New Haven, Yale University Press.