Contents

1	**Introduction**	**1**
	Philosophy and the Social Sciences	1
	A Philosophical Toolkit	3
	Politics and Political Philosophy	8
	The Book and Its Arguments	8
	How to Read the Book	11
2	**Empiricism and Positivism in Science**	**13**
	Introduction	13
	Empiricism and the Theory of Knowledge	13
	Positivism and Sociology	22
	Further Reading	27
3	**Some Problems of Empiricism and Positivism**	**28**
	Introduction: Two Ways to Criticize Positivism	28
	Some Problems of Empiricism	29
	Further Problems of Positivism	45
	Further Reading	49
4	**Science, Nature and Society: Some Alternatives to Empiricism**	**50**
	Marxism and Science	50
	Weber, Merton, and the Sociology of Science	53
	Historical Epistemology and Structural Marxism	55
	Revolutions and Relativism: From Kulm to the 'Strong Programme'	58
	Gender and Science: The Feminist Vision	63
	The Reflexive Turn: 'Constructing' Nature and Society	67
	Conclusion	73
	Further Reading	74
5	**Interpretive Approaches: Instrumental Rationality**	**75**
	Weber's Discussion of the Objects of the Social Sciences	76
	Weber's Methodology: Understanding and Ideal Types	79
	Weber on Objectivity and Value Freedom	81

Phenomenology: A Philosophical Foundation for Instrumental Rationality 82
Instrumental Variations I: Rational Choice Theory 85
Instrumental Variations II: Pragmatism and Symbolic Interactionism 86
Reasons and Causes 88
Individualism, Holism and Functional Explanation 89
Conclusion 90
Further Reading 91

6 Rationality as Rule-Following: Cultures, Traditions and Hermeneutics 93

Introduction 93
Peter Winch: Philosophy and Social Science 94
Language, Games and Rules 95
Understanding Other Societies 97
What Can We Do with Winch? 100
Alisdair MacIntyre: Narratives and Communities 101
Hermeneutics: Hans Georg Gadamar 103
Conclusion 105
Further Reading 106

7 Critical Rationality 107

Introduction: Hegel, Marx and the Dialectic 107
The Dialectic of the Enlightenment 109
Ideology 110
Habermas: The Possibility of an Emancipatory Science 113
Critical Theory and the Linguistic turn 115
Conclusion 116
Further reading 117

8 Critical Realism and the Social Sciences 119

Introduction 119
Realism and Natural Science 121
Experiments, Laws and Mechanisms 123
Reality as Stratified 124
Stratification, Emergence and Reduction 125
Reality as Differentiated: Closed and Open Systems 128
Realism and Social Science 130
Critical Realism and Human Emancipation 135
Further Reading 139

9	**Feminism, Knowledge and Society**	**140**
	Introduction: Objectivity and Cultural Diversity	140
	Feminist Politics and Social Knowledge	143
	Feminism and Epistemology	145
	Debating the Feminist Standpoint	152
	Post-modern Feminism	158
	Further Reading	159
10	**Post-structuralism and Post-modernism**	**160**
	Introduction	160
	Post-structuralism: The Move to the Signifier	163
	Foucault: The Construction of the Subject	164
	Derrida and Deconstruction	166
	Post-modernism: Losing Philosophy	168
	The Politics of Post-structuralism and Post-modernism	169
	What Do We Do with the Posts?	170
	Further Reading	172
11	**Conclusion: In Defence of Philosophy**	**173**
Glossary		179
Bibliography		187
Index		199

1

Introduction

Philosophy and the Social Sciences

Philosophy and the social sciences are usually seen to be separate subjects, so why should students of the social sciences be interested in philosophy? We hope that this question will have answered itself by the end of our book, but we can make a start with it right away. At the time when modern science was in the process of emergence in the sixteenth and seventeenth centuries, it was very difficult to say where the boundary between philosophy and science should be placed. It was only later that it became more conventional to see a separation between the two. As this separation took place, there were two basic models of the relationship. In one view, philosophy could arrive at certain knowledge by rational argument. The most fundamental truths about ourselves and the nature of the world we live in, as well as the rules for arriving at such knowledge, could be established by philosophers. In this way, philosophy provided 'foundations' for the research done in the particular scientific specialisms. This is sometimes called the 'masterbuilder' or 'master-scientist' view of philosophy, and it is associated with an approach to philosophy called 'metaphysics'. In metaphysics, philosophers try to give an account of the universe, the world and everything in it. Nowadays philosophers tend to be a bit more modest.

The alternative view of the relation between philosophy and the sciences is sometimes called the 'underlabourer' view. On this view, it is accepted that armchair speculation about the nature of the world cannot give us certain or reliable knowledge. Knowledge can come only from practical experience, observation and systematic experimentation. So, the special sciences don't need to wait for philosophers to provide them with foundations, or to tell them what they should think. On the underlabourer view, philosophy should be there to provide help and support to the work of the scientists, as they get on with the job of discovering how nature works. But what sort of help can philosophy give?

There are various different views on this. One view is that in our common-sense thinking there are prejudices, superstitions and unquestioned assumptions which are obstacles to scientific progress. Philosophy can perhaps play a part in exposing these and criticizing them, so as to set science free. This is a bit like clearing away the dead leaves on the railway line to let the trains run on.

Another sort of help might be to provide a map of the pattern of existing scientific knowledge, so that scientific specialists can get some idea about where they are in the wider field of knowledge. A third possibility is that the philosophers can use their expertise in logic and argumentation in refining the methods of investigation which scientists use.

In this book, philosophy will be used in all these ways, but most importantly it will be used to provide underlabouring in yet another way. To see what this sort of help might be, we can remind ourselves that philosophy is not just an academic discipline. In everyday life people use the word to mean something rather different from its use in academic contexts. We sometimes say that someone who has had to face up to very distressing circumstances, such as a job loss, or bereavement, that they were 'philosophical' about it. Certainly, most of us do not spend a great deal of time soul-searching about the meaning of life, or the ultimate basis of our values and attitudes. However, there are moments in everyone's life when we are faced with serious moral dilemmas, or with such life-challenging events as losing a job, or a loved one, or being diagnosed with a serious illness. It is at times like these when we are forced to reflect on these questions of fundamental meaning and value in our lives. It is in this sense that, as the Italian Marxist philosopher, Antonio Gramsci (Gramsci, 1971) said, 'Everyone is a philosopher'. But if we are philosophers at these times of crisis, it is also true that in the way we interact with each other in our everyday lives, in the way we choose to spend our free time, in the jobs we choose (if we are lucky enough to have that choice) and so on, we are still *implicitly* philosophers. Our lives display or represent, whether we are generally self-conscious about it or not, a philosophical orientation to the world. We can think of this as a tacit or practical philosophy of life.

So, how does this relate to the question we started out with – the relationship between philosophy and social science? If we go back to the map analogy, it is obvious that people don't usually refer to a map if they are confident they already know where they are going, and how to get there. In everyday life, when things are going on smoothly, with no major problems, we aren't forced to question our basic attitudes and priorities in life. But in the social sciences, things do not run along smoothly. (As we will see, the natural sciences don't run along smoothly either, but most of the time this fact is less obvious.) The social sciences are often derided by public figures and in the media, and social scientists themselves tend to be less confident about their achievements than are natural scientists: they can't prove their success by generating new and impressive technologies, for example. Moreover, social scientists are themselves divided about what is the nature of their disciplines. Many, for example, would not agree that their work is scientific in the same sense as the natural sciences are. Even the ones who do will often disagree about what science is. For this reason, social scientists, and sociologists in particular, tend to be more reflexive about their subjects than natural scientists – that is, they are more likely to spend time thinking about just what kind of activity sociology (or political

science or anthropology or any other such subject) is, what sort of methods it should use, what sort of relationship it should have with its subject-matter, and so on. The kinds of questions we ask when we are being reflexive in this way about our own disciplines are philosophical questions. They are not imposed on us from outside, as in the masterbuilder view, but they arise from within our subjects, as a result of the special difficulties and deep disagreements that we find there. So, the main job of underlabouring we will be doing in this book will be an attempt to address the question: 'What are we doing when we attempt to study human social life in a systematic way?' Depending on how we answer that question, further questions arise: what are the proper methods of investigation of social processes? Can there be objective knowledge of society when the investigators as well as the subject-matter are all part of society? What role do moral and political values play in our work? How should we view the fact of continuing disagreement among social scientists about basics? Is this perhaps a sign of the immaturity of the social sciences, or is it something we should expect as a permanent fact of life, and even welcome? And so on.

A Philosophical Toolkit

To help us be more systematic in our reflexive investigation, we can call in the help of the academic discipline of philosophy. There are some very valuable ideas and arguments we can draw upon, but always, of course, to answer questions posed by the problems we face as would-be social scientists. There are four sub-disciplines, or fields, within philosophy from which we can most usefully draw. These are:

Theory of knowledge

The technical term for this is 'epistemology'. In the seventeenth-century disputes about philosophy and science there were two main alternative views, in opposition to each other. Generally, the masterbuilders had a 'rationalist' view of the nature of knowledge. They were very impressed by mathematics, which seemed to arrive at absolutely certain conclusions by formal reasoning. The seventeenth-century French philosopher Descartes (1641, 1931) is perhaps the best known of the rationalists. His method of systematically doubting everything that could be doubted led him to the conclusion that even as he doubted he must at least be thinking. So what could not be doubted was his own existence as a thinking being. This provided the certain foundation from which he was able (at least to his own satisfaction!) to begin the task of reconstructing the whole edifice of knowledge.

The rival theory of knowledge, generally associated with the underlabourer view, was 'empiricism'. For the empiricist philosophers (see Honderich 1999),

the sole source of knowledge about the world was the evidence of our senses. At birth, they held, the human mind is a blank sheet, as it were, and our knowledge is acquired subsequently, through learning to recognize recurrent patterns in our experience, and attaching general ideas to them. Genuine knowledge (as distinct from mere belief, or prejudice) is limited to the statement of these patterns in experience, and what can be inferred from them. The apparent certainty of the conclusions of mathematical and logical arguments, which the rationalists were so impressed by, is due to the fact that they are true by definition. So the certainty of such statements as 'All bachelors are male', or '2 + 2 = 4', tells us nothing we didn't already know about the world. They are statements in which we make explicit the implications of the way we define certain words, or mathematical operations.

As we will see, the empiricist view of knowledge has been the one that most natural and social scientists have appealed to when making out their claims to provide genuine or authoritative knowledge. It is also the view of knowledge which is closest to most people's common-sense intuitions: 'Seeing is believing,' 'I saw it with my own eyes.'

Ontology

This is a technical term in philosophy, and unfortunately it is used in very different ways in different traditions of philosophical thinking. In the sense we use the term here, an 'ontology' is the answer one would give to the question: 'What kinds of things are there in the world?' In the history of philosophy the many different ways of answering this question can be loosely divided into four main traditions. 'Materialists' have argued that the world is made up entirely of matter (or 'matter in motion'), and the different characteristics of material objects, living things, people, societies and so on can in principle be explained in terms of the greater or lesser complexity of the organization of matter. By contrast, 'idealists' have argued that the ultimate reality is mental, or spiritual. This may be because they, like Descartes, think that their experience of their own inner, conscious life is the thing they can be most certain of. If one begins with this, then it can seem reasonable to think of the material objects and other bodies one encounters as constructs of one's own inner thought processes. As we will see, 'constructivist' views of the external world, with historical roots in Descartes's philosophy, have become fashionable in sociology and related disciplines.

But idealists do have difficulty in being fully convincing when they deny the independent materiality of the external world, and, similarly, materialists have difficulty being fully convincing in explaining away the distinctive character of subjective experience. This is why a third option has been quite popular in the history of philosophy. This is referred to as 'dualism'. Again, Descartes is a convenient and well-known example. Having convinced himself of his own existence as a thinking being, it seemed to him that there was a further

question as to whether he existed as an embodied, material being. Eventually, he was able to be certain of that, but in the process came to see body and mind as two quite different kinds of thing, or 'substance'. So human individuals were, for him, a rather mysterious and contingent combination of a mechanical body with a ghostly mind, or soul (see Ryle 1976).

In Descartes especially we see a close connection between epistemology, or theory of knowledge, on the one hand, and ontology, on the other: what is accepted as *existing* depends on how confident we can be about our *knowledge* of it. For some philosophers, the apparent difficulty of being sure about the nature of anything beyond the limits of our own conscious experience leads them to 'agnosticism'. This is not just the don't-know option in the philosophers' public opinion poll. Rather, it is the positive doctrine that the nature of the world as it exists independently of our subjective experience just cannot be known.

This rather crude division of philosophers into rival materialist, idealist, dualist and agnostic traditions does have some relevance to debates in the social sciences, and we can find many echoes of the debates among philosophers here. However, the disputes in the social sciences tend to be more localized in character. They usually concern not philosophical ontology, but what we might call regional or special ontology. So, instead of asking 'What kinds of things are there in the world?', we might, as biologists, ask 'What kinds of things are living organisms made up of, and how are they put together?' As chemists, we might ask: 'How many elements are there, what are their properties, how do they interact, and so on?' Each discipline has its own regional ontology, its own way of listing, describing and classifying the range of things, relations or processes it deals with; this is the range of things which it claims to give us knowledge of.

In the case of the social sciences, there are deep, on-going controversies about what the constituents of the social world are. One of the most basic disputes has to do with whether society itself is an independent reality in its own right (a 'reality *sui generis*', as Durkheim put it). So-called 'methodological individualists' argue against this. For them, society is nothing over and above the collection of individual people who make it up. Another ontological dispute concerns whether sociologists are justified in referring to social and economic structures and processes which exist independently of the symbolic or cultural meanings of social actors. Are we justified, for example, in talking sociologically about social classes and class interests in societies where individual social actors have no concept of themselves as belonging to social classes?

Logic

So far we've often referred to the disputes, disagreements, arguments, and so on which go on among philosophers and social scientists. If we examine the texts in which these disputes are conducted we will often find stereotyping and

caricaturing of one another's views, outright misrepresentation, questioning of political motives, allegations of bias and so on. While these tactics might have a lot of rhetorical and persuasive force, they are not the same thing as good arguments. The discipline of logic is an attempt to set down in a systematic way what makes the difference between a good and a bad argument. When we construct an argument we are usually attempting to show why a particular statement (our 'conclusion') should be accepted as true. In order to do this, we bring together other statements, which give an account of the relevant evidence, or other considerations, which provide the grounds for believing the truth of the conclusions. These statements are the 'premisses' of the argument. A 'valid argument' is one in which the conclusion follows from the premisses. It is one in which anyone who accepts the premisses *must* accept the conclusion. This does not mean that the conclusion itself must be true, only that it is as reliable or as well established as the premisses from which it is derived. For example:

> If there is a peace settlement in Ireland, this government has at least one great achievement to its credit.
>
> There is a peace settlement in Ireland.
>
> ________
>
> Therefore: This government has at least one great achievement to its credit.

This is a valid argument, because the conclusion does follow from the premisses.

However, the conclusion could still be false, because there might turn out not to be a peace settlement in Ireland, or because even if there is, it might not be an achievement of the government. Interestingly, the conclusion could also turn out to be true, even though the premisses turned out to be false, because the government might, for example, have failed to settle the Irish question, but have found a permanent solution to the problem of unemployment instead. What the validity of the argument *does* rule out is the possibility that both premisses could be true and the conclusion false.

However, this is not a book on formal logic, and most of the time we will have to rely on our intuitive sense of when an argument is or is not valid. The important thing to keep in mind is that the validity of an argument is a matter of the logical relationship between sets of statements. It is not a matter of how good or bad the evidence is for or against any particular factual claim (though, confusingly, in research methods courses, there is a completely different use of the term 'validity' to refer to the adequacy of a measure to quantify the thing it is supposed to be measuring).

Ethics and Moral Philosophy

Ethical questions arise at many points in the course of social scientific research. Sociologists are often involved in uncovering information about the beliefs and

practices of the people they study which might put those people at risk. Sometimes this might be because the practices concerned are socially stigmatized, and the researcher might be concerned not to jeopardize the anonymity of her or his informants. Alternatively, the researcher might well feel that her discovery of corrupt or unjustly discriminatory practices in official organizations ought to be made public. But doing so would at the same time be a betrayal of trust, and might also jeopardize the possibility of further research. Often, too, researchers may be employed to carry out research for projects they did not design, or for organizations whose aims they might not sympathize with. To what extent should they keep quiet about their reservations in order to keep their career prospects open?

These are moral quandaries which frequently arise in the course of research practice. There are other ethical questions which are intrinsic to the research process itself. These have to do with the power relations between researcher and researched. In most social research there is inequality of social status between the two, and even where there is not, the social scientist is implicitly claiming the authority to interpret and represent the beliefs or attitudes of those who are the objects of study. Where there are class, gender, ethnic or other social differences between researcher and researched, such ethical issues necessarily arise.

Finally, sociologists and anthropologists, especially, are constantly confronted by the enormous diversity of human cultures and subcultures. Part of this diversity is diversity in moral values. Because of the ethnographic requirement to interpret other cultures in terms available to the participants in those cultures, these social scientists must be able to suspend their own judgements. The ethical sensitivity which goes along with this, and reflexivity about the power relations between researcher and researched, leads many sociologists and anthropologists towards a position of 'moral relativism'. That is to say, they tend to resist the idea that there are universally obligatory moral values, applicable across all cultures. Morality comes to be seen as a matter of what participants in each culture take to be acceptable or unacceptable. No one culture has a right to dictate to any other what rules it should live by.

On the other hand, closer examination shows that cultures themselves tend not to be so consensual internally as this picture assumes. If there are ethical conflicts *within* a culture, the relativist view is not much help. Also, it can be argued that the relativist position itself rests on a universal principle – that all cultures have a right to their own autonomy and integrity. Finally, it is much easier to adopt the stance of a moral relativist in the abstract than when confronted with a real moral issue. When they encounter cultures in which systematic torture, female circumcision, endemic racism or capital punishment is accepted as morally proper, most social scientists are liable to find their capacity to suspend judgement sorely tested.

So, there seems to be plenty of room for the help of moral philosophy in the work of the social sciences!

Politics and Political Philosophy

These moral issues that might be faced by the researcher have wider implications. Whether we are thinking about female circumcision, capital punishment or social stratification, we are implicitly or explicitly taking a stand on what sort of society we want to live in, and what the 'good' society might look like. Some social sciences and social scientists have been intimately involved with political arguments and processes – from Marx's leading role in the foundation of the International Working Men's Association to Anthony Giddens's involvement with New Labour and the 'Third Way' (from the sublime to the ridiculous?). Government advisers include economists, political scientists, social policy and other experts (although interestingly not many psychologists and historians), all of whom would regard themselves as in some sense or another social scientists. It is not just in the social sciences that we find this connection, since modern governments have teams of natural science advisers. The main difference is that in the latter case, scientific advice is commonly treated as a clear warrant for or legitimation of action.

Be that as it may, the social sciences raise issues about the desirability and possibility of different types of society, and this takes us into issues of political philosophy. This will become most apparent when we discuss the idea of an 'emancipatory' science – a science whose aim is human liberation – and theories of feminist epistemology, developed from Marxism, that suggest that an oppressed group has access to knowledge in a way that other groups do not. Politics will, however, always be close to the surface.

The Book and Its Arguments

It is important to emphasize that this is going to be a book of arguments – arguments about the nature of the social sciences that are not settled, and perhaps by their nature cannot be. Each science, each type of science, changes and is affected by changes in related disciplines as researchers and thinkers learn from each other. We will be discussing the issues in fairly general terms – our aim is to introduce the student to the most general issues, and at this level the development of the field is comparatively slow. There are two ways in the which the reader can approach this book, the first being to see it as a high-altitude photograph or a small-scale map of a particular terrain in which he or she can situate a particular discipline or approach even if we do not mention it directly. It should be possible to situate every social science and every variation somewhere in the picture or on the map. The arguments we explore in relation to one science can certainly be discovered in others.

The second way to approach the book is as a sort of language primer, an introduction to often difficult ideas and arguments which take time to learn

and which are best learnt through participating in the arguments. In an everyday sense we are all philosophers, and as you read you should reflect on your own ideas about the subject you are studying: for example, does the way in which you think about your subject, whether it be geography, sociology, economics, psychology, history or whatever, place it near to or far away from the natural sciences?

We will in fact start by examining the philosophy of natural science. The natural sciences are not as monolithic or simplistic in their approach as critics often seem to assume. Even within the most influential philosophy of natural science, known as 'empiricism', we can find a number of different approaches, and there has been a serious questioning of principles and accepted views of scientific progress from within the philosophy of natural science and the natural sciences themselves. We will be discussing arguments that the social sciences, if they are to be 'real sciences', should model themselves on the empiricist account of science, and we will be discussing where this might or might not be appropriate. We will also be looking at developments in the history and social study of the natural sciences that raise important questions about the nature and status of the knowledge produced by those disciplines.

It might seem strange to start a book on the philosophy of the social sciences with three chapters on the natural sciences, but the two are intimately related. It is not possible to grasp the development of philosophical debates in the social sciences or indeed the development of the social sciences themselves without a knowledge of the way in which the natural sciences have thought about themselves, and the way philosophers have thought about them, as they have developed. These chapters are centrally concerned with empiricist views of natural science, and with the critics of empiricism. The most telling criticisms of empiricism as an account of natural scientific knowledge have come from approaches which recognize the sciences as historically and socially located practices. However, sociological and historical approaches to the understanding of science themselves make knowledge-claims, use empirical methods of research and so on. So to treat their findings about science as authoritatively true would beg the central questions of this book. As we will see in Chapter 4, attempts to construct sociological and historical accounts of science as alternatives to the empiricist view remain controversial. The divisions and debates in the field of social studies of science, or science studies, have many connections with, and often directly reflect, the more general debates about the nature of social scientific knowledge which make up our theme in this book. The main approaches we will introduce in Chapter 4 are selected partly by virtue of the influence they have had on debates in the philosophy of social science, and partly because of their importance as background to the discussion in later chapters. In most cases, we have had space to provide only a brief introductory outline, and you are advised to follow up approaches which interest you with further reading.

We will move from this discussion to an examination of those positions and writers that argue that the social sciences, or some social sciences, *are* scientific but not in the same way as the natural sciences. The social sciences study human beings, and human beings are different from the objects of physics or chemistry – they know they are being studied, they can understand what is said about them and they can take the scientists' findings into account and act differently.

This approach is more closely linked to the rationalist tradition, although in the social sciences it is often referred to as 'interpretivist'. There are in fact several such interpretivist positions and several different conceptions of rationality to be found in the social sciences: the simple instrumental rationality of rational choice theory to be found in some forms of economics and some forms of sociology; the more complicated instrumental rationality of Weberian sociology and the descendants of G. H. Mead's pragmatism; the idea of rationality as rule-following, stemming from anthropology and the philosophy of Wittgenstein and Peter Winch; and the notion of dialectical or critical rationality developed from the Marxist interpretation of the German idealist philosopher G. W. F. Hegel. We will be exploring and comparing all of these approaches.

This will take us on to more recent developments, which move in two directions. One development of some of the arguments about positivism in the natural and social sciences has been the development of modern critical realism, particularly in such disciplines as geography, sociology, politics, economics and psychology. Whereas positivism is primarily concerned with epistemology, the theory of knowledge, realism is primarily concerned with *ontology*, the theory of what exists in the world. This enables a reopening of the debate about the relationship between the social and natural sciences, in a way which suggests that there are both similarities and differences between the two – a more sophisticated view than we will have come across before.

The second development has been towards a systematic relativism. In this book we will trace this through the development of identity politics and in particular feminism. Some feminists have tried to develop a feminist epistemology, basing their arguments on the work of the early twentieth-century Marxist philosopher George Lukács, who argued that the proletariat, the working class, had a privileged position as far as knowledge of the social world was concerned precisely because of their underprivileged position in that world. To put it very crudely, they had nothing to lose by acknowledging the truth. Lukács was of course more sophisticated than this might suggest, as are the feminist philosophers who tried to develop his ideas to argue the same point about women. There is a continuing debate between advocates of various versions of this 'standpoint' epistemology and their post-modernist critics.

We will follow this first through the development of post-structuralism. The first generation of structuralist theorists developed the idea of underlying

structures in society and social life, using a linguistic analogy. Realism developed the idea further, but post-structuralism has moved away from this concern to become part of what is now known as the 'linguistic turn' in twentieth-century philosophy. This approach sees the social world as constituted in and by language, or different 'discourses'. In much post-structuralist philosophy we find the development of a relativist position – the idea that no one discourse is more right, or scientific, than another. This approach has been particularly influential in sociology, cultural studies and social psychology and the study of literature, but it can also be found in history. Post-modernism takes this movement even further, almost to the point of abandoning philosophy altogether – or more accurately using philosophical arguments against philosophy.

How to Read the Book

To repeat: this is a book of arguments not of conclusions. It should perhaps be read as a primer in constructing arguments. Most students should find themselves intuitively sympathetic to one position or another. If you do, you should first try to work out the reasons for and the implications of holding a particular position, and then try to argue against yourself from alternative points of view and see what happens. You should be asking questions about how these ideas apply to your particular discipline: Are some of them irrelevant to the pursuit of knowledge or understanding in your area? Are they mutually exclusive? Whatever you do, don't stop asking questions about these ideas.

As well as being a book of arguments and about arguments, it is a book which has grown out of arguments between the authors, who have taught a course together in the University of Essex sociology department for the last twenty-five years. We think that the ideas and arguments presented here have a life of their own, independently of the biographies of their authors. They can be evaluated, criticized, tested for their wider applicability, accepted, rejected, played with or developed according to the interests of the reader. On the other hand, the biographies of the authors do have a bearing on the pattern of inclusions and exclusions, emphases and omissions you will find in the book. Ideas don't drop from the sky (to quote an eminent philosopher) and it will help you to situate yourself in relation to our arguments to know something of where they came from. Both authors could be described as of the generation of the sixties. We both started out with a strong sense of the political and moral significance of social scientific work. As philosophically informed social scientists, we were engaged through our careers with attempting to make sense of our work as would-be social scientists in a historical context which has changed enormously during that period, and in ways which have repeatedly called into question our favourite assumptions. Our initial commitments to Marxism (though on opposite sides of the debate then raging about how to understand and develop that tradition) were called into question by proliferating social

movements and issues which could not be readily addressed without deep revision of basic assumptions. Black power, gay rights and liberation, feminism in its many forms, and, more recently, the green movement provided intellectual challenges with which we are still trying to grapple, with effects noticeable throughout this book. Given our different starting-points in the discipline, we have addressed these challenges in rather different ways. I. C. has focused on the problematic relationship between social scientific approaches and the understanding of subjective life and personal agency. Meanwhile, T. B. has been concerned with the no less problematic relationship between the social sciences and the understanding of non-human nature – a concern prompted by both green and feminist thought. These differences in biography go a long way to explaining the differences of emphasis you will find in the different parts of the book, and also the division of labour we have adopted in the allocation of the chapters.

Although we have worked together on all chapters, we should plead guilty to those parts of the book for which we carry prime responsibility: Ted Benton for Chapters 2, 3, 4, 8 and 9, Ian Craib for Chapters 5, 6, 7 and 10. We both contributed to the introduction and conclusion. All mistakes are of course the responsibility of the other author!

Index

Abell, P. 86
action, transformational model of 132–3, *glossary (as transformational model of . . .)*
actor-network theory 69–73, *glossary*
Adorno, T. W. 51, 107, 110, 111, 113, 117
affective action 77, *glossary*
agnosticism 5
Althusser, L. 56–7, 90, 160, 163, 164, 165
Andreski, S. 22
Andrews, M. 103
Aquinas, T. 101
Archer, M. 132, 139
Aristotle 101
Ayer, A. J. 13, 37

Bachelard, G. 55
Balibar, E. 164
Barnes, B. 62
Barthes, R. 160
Baudrillard, J. 160, 168–9, 172
Beck, U. 23, 68–9
Beckett, S. 168
Beer, G. 37
Beethoven, L. 112
behaviourism 185
Benton, T. 22, 27, 29, 37, 56, 68, 119, 130–1, 134, 139
Berger, P. 84, 132
Bernal, J. D. 52
Bhaskar, R. 58, 119, 122–39
Biehl, J. 152
Birke, L. 67, 144
Bloor, D. 62
Blumer, H. 87
Brown, J. R. 49, 62
Bruner, J. 102
Bryant, G. A. 133

Callon, M. 71
Canguilhem, G. 55
Caplan, A. 144
Carling, A. 86
Carnap, R. 13
Carson, R. 149
causal adequacy 81, 96, *glossary*
see also reasons and causes
causal mechanisms 123–8
Chalmers, A. F. 27, 29, 49
Chodorow, N. 65, 150
Chomsky, N. 29–30
Cioffi, F. 17
closed systems 128–9, 135, *glossary*
cognitive interest 114, *glossary*
Collier, A. 128, 130, 133–9
Collins, H. M. 62–3, 71
communities 101–3
comparative analysis/method 81
Comte, A. 22–3, 27, 46, 109
conditions of existence 90
constructionism (constructivism) 4, 67–74, *glossary*
conventionalism 32, *glossary*
Craib, I. 17, 24, 150
critical realism 10, 50, 57–8, 119–39, 160, 163, 175, 176, 177, *glossary*
critical theory (Frankfurt School) 46, 51, Chap. 7 *passim*
critique (explanatory) 136–9, *glossary (as explanatory critique)*
Culler, J. 160

Darwin, C., Darwinism 36, 42–3, 45, 47, 121–2, 156, 160
deconstruction 166–8, *glossary*
Derrida, J. 160, 166–8, 177
Descartes, R. 3, 4, 5
Desmond, A. 45
Dewey, J. 86
dialectics, dialectical rationality 107–9, *glossary*
Dickens, P. 139
Dilthey, E. 76, 103
discourse 164–5
Douglas, J. 89
dualism 4–5, 67, 69–73, *glossary*
Durkheim, E. 5, 24–7, 31, 89, 127, 131–2, 174

Easlea, B. 64
eco-feminism 64, 152, *glossary*
Elliott, G. 56
emancipation 8, 135–9, 141
emancipatory interest 114, *glossary*
emergent powers 127, *glossary*
empirical testing 14–19, 21–2, 31–3

empiricism 3–4, 9, 13–23, 29–45, 50, 121, 123, 154–9, 75, *glossary*
  feminist 145–6, 157
  standpoint 10, 37, 142–3, 145–58
Engels, F. 108, 141
Enlightenment, the 103, 109–10, 170, *glossary*
epistemological break 56, *glossary*
epistemological obstacle 56
epistemoids 130
epistemology 3–4, 5, 10, 131, 140–59, *glossary*
  feminist *see under* feminism
  historical 55–6
essentialism 159
ethics 6–7, 22, 28, 43–6, 49, 54–5, 135–43, 158
ethnography 7, 69
ethnomethodology 84, 89, 96
Evans-Pritchard, E. E. 97
exchange theory 85
Eyerman, R. 143

falsification (-ism) 21, *glossary*
feminism
  and epistemology 8, 10, 143–59
  and science 63–7, 74, 140–59
feminist empiricism *see under* empiricism
Ferguson, A. 141
Feuerbach, L. 141
Feyerabend, P. K. 47, 61, 129–30
Flax, J. 146, 151
forms of life 96
Foucault, M. 49, 159, 160, 164–6, 168
Freud, S. 161, 163, 164
functional explanations, functionalism 35, 37–8, 54–5, 90, *glossary*
functional rationality 116, *glossary*

Gadamer, H.-G. 103–5, 107, 115–16, 176
Galileo, G. 140, 161
Garfinkel, H. 84, 95
Gelsthorpe, L. 145
Gergen, K. 160, 169, 178
Giddens, A. 8, 75, 84, 89, 132–3
Gilbert, N. 68
Goffman, E. 87
Goldberg, S. 144
Gramsci, A. 2
Greenfield, S. 37
Gutting, G. 55
Guy, W. 135

Habermas, J. 107, 113–17, 171–2, 178
Hacking, I. 49, 62
Haeckel, E. 142
Halfpenny, P. 22, 27, 29
Hammersley, M. 145
Hanson, N. R. 30, 36, 122
Haraway, D. J. 67
Harding, S. 63, 144–6, 156, 159
Harré, R. 27, 49, 119, 121, 130
Harrison, B. 144
Hartsock, N. 146–9, 151–3, 158–9
Harvey, D. 168
Hayek, F. A. 47
Hegel, G. W. F. 10, 87, 107–9, 149, 167
Heidegger, M. 166
Hempel, C. G. 27, 38
Herder, J. G. von 141
hermeneutics 78, 103–5, 109, 114, 116
  hermeneutic circle 104, *glossary*
Hesse, M. 36, 119, 121
Hoffe, O. 31
holism 89–90, *glossary*
Holmwood, J. 158
Honderich, T. 3
Horkheimer, M. 51, 107, 109, 110, 112
How, A. 104, 105
human interests 113–14
Hume, D. 19
Husserl, E. 82–3, 167
hyperreality 169, *glossary*

idealism 4, 115, *glossary*
ideal speech situation 115, 157, *glossary*
ideal types 80, *glossary*
ideology 110–13, *glossary*
incommensurability 33, 60–1, 142
individualism 26, 86, 89–90, *glossary*
  methodological 5, 130–3
induction, problem of 19, *glossary*
instrumentalism 34, *glossary*
instrumental rationality 10, 46, Chap. 5 *passim*, 100, 103, 113, 115, 116, 175, *glossary*
interpretivism 10, *glossary*
intransitive dimension 123–9, 133, *glossary*
irrationality 10, 91, 166
Irwin, A. 74

Jackson, C. 152
James, W. 86
Jameson, F. 168
Jamison, A. 143
Jarry, D. 133
Jung, C. 102

Kant, I. 31, 59, 76, 107
Keat, R. 22, 27, 29, 49, 88, 119
Keller, E. F. 63–6, 74, 149
Korner, S. 31
Koyre, A. 55
Kuhn, T. S. 58–61, 98, 129, 130

Lacan, J. 160, 163–4, 166
Lakatos, I. 61–2
Land, H. 150
language games 95, 99, *glossary*
Lassman, P. 82
Latour, B. 34, 68–74
Laudan, L. 49
Lawson, T. 139
Leat, D. 79
Lecourt, D. 55
Lévi-Strauss, C. 160
Levitas, R. 135
life-world 116, *glossary*
linguistic philosophy 94–7
see also structural linguistics
linguistic turn, the 11, 89, 93, 115–16
logic 5–6, 20, 26–7, 35–6, 154, *glossary*
logocentrism 167, *glossary*
Longino, H. E. 49, 62
Lopez, J. 37
Lovibond, S. 159
Luckmann, T. 84, 132
Lukács, G. 10, 111, 146–7, 153
Lukes, S. 24
Lyons, J. 30
Lyotard, J.-F. 160, 168–9, 172

McClintock, B. 66–7
McCormack, C. 145
MacIntyre, A. 93, 99, 101–3
MacKenzie, D. A. 62
McLennan, G. 159
Madden, E. H. 119
Mannheim, K. 177
Marcuse, H. 51, 107, 109, 110, 111, 112
marginalist economics 85
Marshall, G. 107
Marx, K., Marxism 8, 10, 13, 50–3, 56–7, 101, 107, 108, 111, 113, 114, 131, 135–6, 145–7, 149, 153, 160, 161, 163, 168, 169
materialism 4, *glossary*
Mead, G. H. 10, 87
meaning adequacy 80, *glossary*
meaning contexts 84
meaningful action, meaningful social action 77, *glossary*
Mellor, M. 139, 152
Mendel, G. 17–18
Merchant, C. 64, 149
Merleau-Ponty, M. 83
Merton, R. K. 54–5
meta-narrative 169, 171, *glossary*
metaphysics 1, 22, 41, 46–7, 59, *glossary*
Mies, M. 152
Minsky, R. 164
mode of production 163
Montesquieu, C. L. de S. 141
Moore, J. 45
Moore, R. 82
moral philosophy 101–3
see also ethics
Morgan, D. 145
Mozart, A. 112
Mulkay, M. 68
Murphy, R. 63

narratives 101–3, 169, *glossary*
see also meta-narrative
naturalism 47–8, 130–1, 133–5, *glossary*
critical 130–1, 133–5
negation, the negative 109
Neurath, O. 13
New, C. 128
Newton, I. 16–19, 140
Newton-Smith, W. 27, 49, 62
Nicholson, L. J. 159
Nietszche, F. 110, 164, 166
Norrie, A. 139

objectivity 81
object relations psychology 65, 150–2, *glossary*
Oldroyd, D. R. 49
O'Neill, J. 47, 139
ontological individualism *glossary*
see also individualism

ontology 4–5, 10, 28, 59, 125, 129, 131–3, *glossary*
open systems 128–9, 135, *glossary*
Outhwaite, W. 136, 139

paradigm 59–61, 98, *glossary*
Parsons, T. 90
Pearce, F. 24
Pharies, D. A. 86
phenomenology 76, 82–4, 91, 161
  phenomenological reduction 167, 183–4, *glossary*
philosophical anthropology 114
phonocentrism 167, *glossary*
Pickering, A. 62, 71
Pierce, C. S. 86
Pinch, T. 62
Pinker, S. 30, 37
Plumwood, V. 152
Popper, K. 14, 21, 48, 61, 109
positivism 10, 13, 22–9, 45–50, 75, 81, 91, 96, 109, 114, 174
post-modernism 11, 67–8, 139, 154, 158–9, Chap. 10 *passim*, *glossary*
post-structuralism 11, Chap. 10 *passim*, *glossary*
practical action 78
pragmatism 86–8, 113, 115, 116, 176, *glossary*
prejudice 104, 105
problematic 56, *glossary*
psychoanalysis 161, 163

Quine, W. V. O. 29

radical science movement 53
rational choice theory 76, 85–6, 114, 176, *glossary*
rationalism 3, *glossary*
rationality *see* critical theory; dialectical rationality; functional rationality; instrumental rationality; rules, rule following
realism 10, 41, 50, 57–8, 119–39, 154, 159, *glossary*
  critical *see* critical realism
reasons and causes 88
Red–Green Study Group 139
reductionism 41, 126–8
Rees, R. 99
reflexivity 75, *glossary*
relativism 10, 11, 33, 61–3, 73–4, 81, 86, 96, 103, 105, 116, 141–3, 154, *glossary*
  moral 7, 22, 138
research programme 61–2
retroduction 36, 122, *glossary*
Rex, J. 82
Rickert, H. 76
Rock, P. 87
Rose, H. 30, 53, 63, 144–6, 149–50, 159
Rose, S. 30, 41, 53, 144
Rouseau, J.-J. 141
rules, rule-following 93, 95–101, 103, 162, *glossary*
Rustin, M. 68
Ryle, G. 5

Sacks, O. 30
Salleh, A. 152
Sarup, M. 168
Saussure, F. de 127, 159, 161–3, 166, 167, 171
Sayer, A. 139, 159
Schachtel, E. 65–6
Schaffer, S. 62
Schoenberg, A. 112
Schutz, A. 83–4, 85, 91
sciences 9, 13–24, 26, 28–47, 50–74, 121–30, 134, 140–3
scientific experiment 124–5, 128–30, 133, 135
scientific explanation 14, 19–21, 26–7, 34–43, 126–9
  covering law, model of 14, 19–21, 26–7, 34
scientific laws, laws of nature 14, 17–19, 20, 31–2, 123–4, 129
scientific theories 34–43, 121–2
  hypothetico-deductive model of 38–43
  metaphors in 36–7, 121–2
Shapin, S. 62
Shiva, V. 152
sign, the, signifier/signified 161–3, *glossary*
social constructionism 84
social facts 25–7
social policy 26–7, 48–9
social structures 76
sociobiology 144
Sohn-Rethel, A. 146

Soper, K. 139, 152, 159
speech acts 115
Stanley, L. 145
Stones, R. 133
Strathern, M. 145
strong programme in the sociology of knowledge 62, *glossary*
structures, structuralism 10–11, 132–3, 134–5, 160–3, *glossary*
structural linguistics 161–3
structuration theory 84, 89, 132
subject, the 165
symbolic interactionism 86–8, *glossary*

tacit knowledge 47, *glossary*
Taylor, C. 100, 101, 116, 173, 176
technical interest 113–14
tradition 101, 103–5
traditional action 77, *glossary*
transcendental argument 57–8, 122–3, 131, 135
transitive dimension 123, 129–30, 133, *glossary*
typifications 84

ultimate values *see* values
unconscious, the 163
'underlabourer' conception of philosophy 93
understanding 79, 97–101
  history as a basis for 101–3
  observational and explanatory understanding 80, *glossary*
universal laws 80
Urry, J. 22, 27, 29, 49, 88, 119
utilitarianism 22, 85

value freedom 81–2, *glossary*
values, value choice 76, 77, 97
Vico, G. 141, 153
Voltaire, F. M. A. de 141

Wainwright, H. 47
Wallace, A. R. 122
Weber, M. 46, 53–4, 76–82, 84, 85, 88, 91, 96, 107, 115, 110, 116, 131
Werskey, G. 52
West, D. 168, 177
Winch, P. 10, 93–101, 102, 103, 115, 116, 162, 170, 176
Wittgenstein, L. 10, 93, 95, 103, 162, 169
Wolff, K. H. 82
Woolgar, S. 68–9
Wynne, B. 44, 69

Yearley, S. 71