

CRITICAL REALISM AND THE SOCIAL SCIENCES:
HETERODOX ELABORATIONS

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1 Critical Realism and the Social Sciences: Methodological and Epistemological Preliminaries

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Introduction

Critical realism is a distinctive school of thought that has been growing in significance since 1975, when the philosopher of science Roy Bhaskar published his groundbreaking book, *A Realist Theory of Science*. Bhaskar's next book, *The Possibility of Naturalism* (1978), focused more on the social sciences, and in 1989 he published *Reclaiming Reality*, a third crucial volume, where, in part through responding to critics of his work, he developed and consolidated his position. *A Realist Theory of Science* challenged the general representations of natural science while stressing that discipline's capacity to produce valid knowledge. By reconceptualizing the nature of the relationship between empirical experiences, the wide range of actually occurring events, and the complex sets of generative mechanisms that produce experiences and events, Bhaskar developed what he termed 'transcendental realism.' In *The Possibility of Naturalism* he offered important insights into the social as well as the natural world while continuing his exploration of scientific enquiry, thereby developing a 'critical naturalism.' In *Reclaiming Reality*, he explicitly embraced what had become a general description of his position, namely 'critical realism.' Although there are many varieties of realism in the social sciences, we are concerned with this tradition that has emerged from the development of these early writings by Bhaskar, for, stemming from this philosophy of science and its subsequent incorporation into social scientific enquiry by British social scientists over the past quarter century, social scientific realism, especially this Bhaskarian variety, is now emerging as a formidable and major challenger to positivistic and phenomenological social science.

Critical realism has had relatively little impact on North American social theory or empirical research, and this is precisely why we think it important to promote discussion and debate about its fruitfulness as an alternative to dominant modes of social scientific reasoning and enquiry. We see critical realism as providing for a renewal of social scientific enquiry, and this anthology is intended as a contribution toward the renewal. Although there are subtle differences between some critical realists, and as José López and Gary Potter (2001a: 9) point out it is a 'broad church,' there are some central tenets. And though we make no pretension to exhaustiveness, this movement's tenets are, broadly speaking, the following:

- 1 Reality exists independently of our knowledge of it, which is also to say that it exists independently of the mind of social actors. For example, the existence of systematic inequalities within the legal-political sphere does not depend on our knowing of their existence. Reality is always mediated through 'perceptual filters,' so it makes little sense to hold that our knowledge corresponds exactly to what exists. Rather, our categories and concepts help us to make reference to some aspect of a material referent. As our knowledge is fallible, our references will always undergo continual revision. The referent does not change, but rather our references to it and how we make those references does.
- 2 Objects are held to belong to a *stratified* reality independent of our perception and are the products of (at least partially) unobservable, constitutive processes and relations. Social objects, then, are held to not simply exist but to be *emergent*, arising from the intersection of a mass of tangled material and discursive relations. These relations require sorting out, especially in order to identify and separate the contingent relations from the necessary relations that are constitutive of the conditions under which objects emerge as social objects that can be known by researchers. This also means that inherent to critical realism is a concern with both social structure and social action and their articulation. As well, there is a concern to see empirically apprehendable phenomena as not exhaustive of that which actually exists, which means that partially obscured or unobservable entities may be inferred to exist from what can be seen or measured.
- 3 There are unobservable features of social life that can be known to some degree and must be revealed in order to plausibly explain the existence, reproduction, and transformation of empirically

apprehendable social phenomena. For example, **relations of power are not directly observable but can be inferred to exist from their effects in the social world**. Such effects include class conflict, gender and racial inequalities, exploitation and domination.

- 4 **Social structure pre-exists social action, as all human action is held to be situated activity**. Social institutions such as the family, religion, education, work, and law pre-exist our birth and are relatively enduring or intransitive and constrain and enable social action. **Our knowledge about these is transitive. Far from reifying social structure, that knowledge is held to be alterable and undergoing an incremental transformation**. Social structure is not simply the sum of human interaction, although the former is reproduced and transformed through human interactions but also through non-human interactions as well as interactions between human and non-human entities.
- 5 **Explanation is necessarily theoretical, and theoretical work is necessary for social scientific enquiry**. It is active, conceptual work that is always tethered to an empirical referent. In other words, theoretical elaboration is tethered to an ongoing concern with the thing to be described and explained.
- 6 Critical realism is primarily concerned with ontology and so is 'thing centred,' meaning that it begins from questions about what exists (e.g., the conditions under which social objects such as 'security' emerge). **It then moves to questions of epistemology, concerned with the production of knowledge about what exists** (e.g., how can 'security' be investigated). This is to say that questions of epistemology are clearly distinguished from those of ontology.

As critical realism is not a theory but a metatheory or a philosophy of (social) science it is compatible with a number of substantive theoretical positions (Layder 1990: 19; Sayer 1992: 4–5). For example, the work of Karl Marx (Brown, Fleetwork & Roberts 2002; Creaven 2000; Joseph 2002; Ehrbar, this volume; Engelskirchen, this volume; Albritton, this volume), Louis Althusser (Datta, this volume) Antonio Gramsci (Joseph 2002; Pearce & Tombs 1998), Émile Durkheim (Pearce 1989, 2001, and this volume), Jacques Derrida (Joseph & Roberts 2003; Norris 1987), Pierre Bourdieu (Potter 2000; Frauley 2006), **Hans-Georg Gadamer** (Chodos et al., this volume) and Michel Foucault (Pearce & Woodiwiss 2001; Woodiwiss; Frauley, this volume; Datta, this volume) have all been explored and situated in relation to critical realism. Likewise,

post-structuralism has also been found to be amenable (Stones 1996) as has critical race theory (Carter 2000; Frauley 2004) and feminist standpoint theory (Cain 1986, 1990; New 1998). Whether critical realists lean toward postmodernism (Stones 1996), **hermeneutics and critical theory** (Morrow 1994; Outhwaite 1983, 1987), are dealing with methodology (Carter & New 2004; Cruickshank 2002; Pawson 1989; Pawson & Tilley 1997; Frauley & Pearce, this volume; Sayer 1992), or are social psychologists (Manicas 1987; Layder 1990, 1993), philosophers (Norris 1987, 1997, 2000), legal theorists (Norrie 1993, 2005) geographers (Sayer 2000, this volume), or sociologists (Archer 1995; Benton 1977, Carter 2000; Carter & New 2004; Pearce & Woodiwiss, this volume), critical realism, as a metatheoretical position or set of methodological protocols, can and has been successfully and fruitfully employed for social enquiry.

This collection brings together scholars from a range of disciplines from both sides of the Atlantic to systematically engage with and elaborate on critical realism, which offers an alternative to the dominant and long-standing reduction of social scientific enquiry to positivistic or interpretive-hermeneutic epistemologies. Contributors are united by a passionate belief that the conceptual systems that we deploy have serious consequences for our styles of thought, ethical choices, political orientations, forms of social analyses and modes of generating and evaluating empirical evidence. They explore these consequences in relation to realism and other currents of theoretical thought. Human attributes and capacities, societal relations and forces, and the interrelatedness of human activities and the natural world can all be investigated using the realist distinction between the empirical (the limited set of events and phenomena that human beings can experience), the actual (all the phenomena and events that have been produced), and the real (which includes not only the actual but also the stratified systems of generative structures and mechanisms that have the capacity, which may or may not be exercised, to produce these and possibly other events and phenomena). Realists recognize that 'the objects investigated by science ... exist and act independently of human activity [including that of scientists], and hence of both sense experience and thought' (Bhaskar 1989: 12–13) and that these objects are an essential resource that needs to be shaped and modified in scientific and, above all, experimental activity. A distinction must be made between causal laws, which describe the tendencies of structures and mechanisms under specific conditions, and realized events. These latter are the outcomes of a confluence of disparate structures and mechanisms that happen to be parts of a spatially and

temporally located complexus of relations operating under specific conditions that may lead to some causal powers not being exercised, some being exercised but their effects negated, and yet others active and effective but mutually determining outcomes.

Critical Realism and Natural Science: A Brief Overview

When Roy Bhaskar wrote *A Realist Theory of Science* he identified two dominant understandings of science: empiricism and idealism. The first can be traced back to Francis Bacon and then, more important, to David Hume. According to empiricism, the ultimate objects of knowledge are atomistic events, the constant conjunction of which constitutes the facts that provide the objective content of our ideas of natural necessity. Empiricism holds science to be conceived of as a kind of behavioural response to repeated factual stimuli, and the validity of scientific knowledge is assessed by scientists in relation to its contribution to the recognition and prediction of determined effects. The second position, which can be traced back to Immanuel Kant, is transcendental idealism, which suggests that the objects of scientific knowledge are artificial constructs – models, conceptions of natural order, etc. The experience of constant conjunctions is still necessary, but this position holds that such experience is always mediated through features characteristic of all individual minds and/or through concepts collectively produced by, and informing the perceptions and practices of, human groups. What we think of as the natural world becomes a construction of the human mind and/or of the scientific community (Bhaskar 1978: 24–25). Not surprisingly, this position is also often described as a form of ‘conventionalism’ (Keat & Urry 1975: ch. 3).

In order to understand why Bhaskar focused on empiricism and idealism, it is useful to elaborate on the manifestations of these positions in the decades prior to his groundbreaking work. During this period and since, the major contemporary variant of empiricism was positivism, characterized by an ontology that holds that, belying the bewilderingly complex data of our experience, the universe comprises both a series of atomistic events and a determinate order; only things that can be observed can be known to be real, and for these things to be of scientific interest, claims about them must be true for all times and places. Its epistemology holds that knowledge is to be attained though the senses via experiments, that our sensory experience of a thing corresponds in some sense to what that thing is really like, and

knowledge is acquired in order to facilitate prediction and explanation of the world. This position is based on the idea that reality is simply a constant conjunction of events – that is, a series of related events that appear to us as regularities. Claims, therefore, are subject to verification or falsification to determine validity.

Carl Hempel develops a sophisticated and influential variant of positivism that has been significant in discussions of both the natural and social sciences, and Bhaskar and other realists such Russell Keat and John Urry (1975) and Ted Benton (1977) pay close attention to his work and provide powerful realist critiques of it. In his covering law model of scientific explanation (Hempel 1965), Hempel's goal is to provide the necessary and sufficient conditions for something to be properly regarded as a scientific explanation. That which has to be explained is the 'explanandum statement,' which has reference to some observable event and it is explained by the 'explanans statement.' The latter consists of antecedent observable conditions and the general laws that on this occasion come into play. If this is an adequate explanation, it will also allow us to predict an event that has not yet occurred, and as such it also allows us to explain the event after it has occurred. In such 'deductive-nomological' laws there is therefore symmetry between prediction and explanation.¹ Hempel suggests that in addition to deductive nomological laws there are also inductive statistical laws. In the case of these latter, some particular outcome is explained when it can be shown that included in a description of its conditions is a premise that under these conditions there is a high degree of inductive probability that this particular outcome is one of a statistically determinable and demarcated range of possible outcomes.² Scientific theories consist of sets of highly general statements, the truth or falsity of which can be ultimately decided only by systematic observation and experiment that produce agreed observation-statements. Progress in science occurs when a theory emerges that can explain all a competing theory explained but can also explain more. Progress also occurs when the concepts, laws, and theories of one science are derived from another more basic science – for example, sociology from psychology, psychology from biology, biology from chemistry, and chemistry from physics (Hempel 1969).

However, Hempel, like other positivists, agrees with David Hume's scepticism about inductivism (1740/1962: 286–302) in that we cannot assume that just because some set of events have been followed by another set, however often that has been the case, there is any logical

necessity that this will happen again. This leaves positivists in a difficult position, for there are then no grounds for asserting necessity in nature. In practice, a pragmatic resolution of this dilemma is to suggest that since there are always competing theories, and since, for a myriad of known and unknown reasons, the precise predictions of any scientific theory are only sometimes validated, a reasonable criterion for differentiating among a group of theories that try to explain some specific phenomenon is to give greater credence to the one most successful in its predictions. In this way progress in science is possible. A second more radical position is that proposed by Karl Popper. It accepts the Humean critique of inductivism (including his view that explanations are fictions, albeit useful ones) and suggests that while we can never know if a theory is correct – after all, some future prediction may be falsified – we can know that a theory is incorrect if one or more of its predictions has already been falsified. Falsificationists also typically argue that the scientific method does not first involve observations, then inductive generalizations from these to a theory, and then attempts to falsify it. Rather, it involves the hypothetico-deductive method whereby first a theory or hypothesis is formulated and then tested by making a series of potentially falsifying observations. Our conjectures tell us what to look for and what to test (Popper 1959, 1969). In this view, progress in science consists ultimately in the elimination of false theories and hence a narrowing of the field of competing potentially accurate accounts of the world. Those committed to both positions believe that science has progressed, albeit gradually, in that there has been a continuous increase in empirical knowledge, a related eradication of inaccurate representations, and a related rejection of false theorizing. And there has been a wider and more integrated plausible, but not definitive, theoretical understanding of the world.

A problem for empiricists is that in order to explain phenomena they often invoke unobservable hypothetical or theoretical entities – for example, in the second book of *Novum Organum* (1620/1963) Francis Bacon suggests that heat is an effect of the usually unobservable expansive motion of microscopic parts of bodies, and Hempel endorses the use by science of concepts of unobservable electric, magnetic, and gravitational fields (Hempel 1965). But while positivists accept that they must on occasion make use of such entities in their explanations, they strongly differentiate these from observation terms and deny that any ontological commitment can be made to the real existence of such ‘theoretical entities.’ Instead, they assert that

observational language is ontologically and epistemologically privileged, although Hempel shows some disquiet over these distinctions (Hempel 1966: 81–82). Overall they retain the view that there is an absolute distinction between theories that offer explanations and that must be treated with scepticism, a scepticism magnified if they make use of theoretical entities, and observations that in principle can be established with certainty.³

The contrasting, conventionalist understanding of science, traced back to Kant's transcendental idealism, yielded a powerful critique of empiricism in the 1960s. An influential indictment of many positivist arguments, *The Structure of Scientific Revolutions*, by Thomas Kuhn (1970), takes as its starting point the history of science. He makes a distinction between two moments in scientific endeavours, one he calls normal science and the other revolutionary science; during the 'normal' phase scientists work within a 'paradigm.' They assume that their theories provide an adequate general account of which entities, forces, and relations constitute the cosmos and that any difficulties they experience in applying and developing the established theories, including failures to produce predicted results, are to be explained as problems stemming from their personal inadequacies, deficiencies in their apparatus, or with how particular aspects of the theory have been elaborated. During normal science there is little concern with falsification but a great deal with puzzle solving. However, anomalous results may accumulate to the point that a general dissatisfaction with the established paradigm may develop. There may be a revolution in thinking and the establishment of a new paradigm. This change will involve the acceptance of a new general account of which entities, forces, and relations constitute the cosmos and will provide a new research agenda producing new puzzles that will now be assiduously solved.

Kuhn makes a number of crucial claims about paradigm shifts like this. He believes that such paradigms are incommensurable; the scientists operating within different paradigms live in 'different worlds' (Kuhn 1970: 118). Further, the movement from one to the other does not necessarily mean that the new one will account for all the problems resolved by the previous paradigm (plus providing additional solutions) but, rather, it puts in place a whole different schema for evaluating what is important. The paradigms are not in accord about how they conceptualize and explain the physical world or about what constitutes an adequate explanation, or about what counts as a proof, etc. He also argues persuasively that observations are never theory neutral,

that observers' orientations, forms of instrumentation, and ways of interpreting results are always theory impregnated; hence, it is necessary to reject 'the methodological stereotype of falsification by direct observation of nature' (Kuhn 1970: 77). Predictions vindicated or falsified are no longer seen as determining the fate of theories, and the absolute distinction between observation statements and theoretical explanation is seen as no longer tenable.

An even more radical version of scepticism or conventionalism is to be found in the work of Paul Feyerabend. In a series of articles and books he developed an 'anarchist theory of knowledge' challenging the notion that science was, could be, or ought to be a rational and objective enterprise. Feyerabend agreed with Kuhn that there are no theory-neutral observation languages or universal methodological rules; he agreed also that theories would not be rejected merely because of falsifications and that the history of science is characterized by change in meaning (Kuhn 1970; Feyerabend 1965: 168–172, 179–181). He concurred as well with revisionist Popperians such as Imre Lakatos (Lakatos and Musgrave 1970) that a crucial issue when evaluating rival sets of theories is to what extent they developed an empirically and theoretically fertile research programme. But he challenged the concept of 'normal science' – he was committed to a principle of proliferation that was opposed to any puzzle-solving normality. At the same time he was opposed to any model of scientific progress that assumed there should be a once-and-for-all replacement of one research programme paradigm by another newer one: 'if it is unwise to reject theories the moment they are born because they might grow and improve, then it is also unwise to reject research programmes on a downward (degenerating) trend because they might recover and attain unforeseen splendour (the butterfly emerges when the caterpillar has reached its lowest stage of degeneration)' (Feyerabend 1975: 185). He believed that historically scientific progress had been possible because of 'only one principle ... anything goes' (Feyerabend 1970: 26). For Feyerabend the implications of these arguments were clear and positive. 'Without universally enforced standards of truth and rationality we can no longer speak of universal error. We can only speak of what does, or does not, seem appropriate when viewed from a particular and restricted point of view, different views, temperaments, attitudes giving rise to different judgments and different methods of approach. Such an anarchistic epistemology ... is not only a better means for improving knowledge, of understanding

history. It is also a more appropriate for a free man to use than are its rigorous and scientific alternatives' (Feyerabend 1970: 21).

Bhaskar's response to these positions is to subtly change the terms of the debate. Early in *The German Ideology*, Marx and Engels show that even at the dawn of truly human history, human beings, whatever the mythological categories in which they cloaked their understanding, must have developed enough effective practical understandings to manipulate the world so effectively as to collectively reproduce themselves as material and cultural beings, day by day and generation by generation (Marx and Engels 1845/1976: 31). Somewhat similarly, Bhaskar starts with the fact that there has been successful scientific practice – think of the adequacy of the scientific knowledge that is a precondition for the aeroplanes that so many of us now routinely use to fly at thirty-five thousand feet and take off and land safely – and then reflects on the very possibility of science. In doing so he is engaging in the process of answering the critical metaquestion, 'What are the conditions of plausibility of an account of science?' (Bhaskar 1978: 8). He draws a distinction between two sides of scientific knowledge. First, science is a social product 'much like any other, ... which has its own craftsmen, technicians, publicists, standards and skills and which is no less subject to change than any other commodity.' But second, scientific 'knowledge is "of" things which are not produced by men at all: the specific gravity of mercury, the process of electrolysis, the mechanism of light propagation.' 'These "objects" of knowledge' do not 'depend upon human activity,' for if human beings 'ceased to exist sound would continue to travel, and heavy bodies fall to the earth in exactly the same way although ex hypothesi there would be no one to know it' (Bhaskar 1978: 21). Scientific practice involves the modelling and representing of 'intransitive objects of knowledge' by producing 'transitive objects of knowledge.' But then, acknowledging but providing a somewhat Althusserian reframing of some of the issues raised by Kuhn and Feyerabend, Bhaskar points out that such practice always draws on 'the antecedently established facts and theories, paradigms and models, methods and techniques of enquiry available to a specific scientific school or worker.' The scientific theories thereby produced may work poorly or well and may be modified or discarded and replaced. Science as a practice always makes use of prior 'transitive objects' and is only conceivable if there are intransitive objects.

To elucidate this latter point, it is useful to look at Bhaskar's crucial insights about the intelligibility of experimental activity in the natural sciences.

In an experiment the experimenter is a causal agent of a sequence of events but not of the causal law which the sequence of events enables him to identify. This suggests that there is an ontological distinction between scientific laws and patterns of events ... To ascribe a law one needs a theory. For it is only if it is asked by a theory containing a model or conception of a putative causal or explanatory link that a law can be distinguished from a purely accidental concomitance ... Now at the core of theory is a conception or picture of a natural mechanism or structure at work. Under certain conditions some postulated mechanisms can come to be established as real. And it is in the working of such mechanisms that the objective basis of our ascriptions of necessity lies ...

It is only if we make the assumption of the real independence of such mechanisms from the events they generate that we are justified in assuming that they endure and go on acting in their normal way outside the experimentally closed conditions that enables use to empirically identify them ... Moreover it is only because it must be assumed, if experimental activity is to be rendered intelligible, that natural mechanisms endure and act outside the conditions that enable us to identify them that the application of known laws in open systems, i.e. in systems where no constant conjunction of events prevail, can be sustained. This has the corollary that a constant conjunction of events cannot be necessary for the assumption of the efficacy of a law. (Bhaskar 1978: 12–13)

There is, then, a need to make an ontological distinction between the intransitive causal powers of structures and mechanisms, which will only be activated and effective under specific conditions (and which, while still existing *in potentia*, may not be activated or effective under other conditions), the events of phenomena actually produced, and the small subset of these experienced by human beings. These objects can exist and act quite independently of human beings. At the same time, any attempts to produce knowledge of these intransitive causal powers and mechanisms necessarily depends on antecedent social products and involves human practices informed by socially situated forms of understanding and on the activation of the powers of at least some intransitive objects. These forms of knowledge may prove more or less adequate to their object and are always subject to revision. Here we have the essence of Bhaskar's 'transcendental realism.' This introduction is no place to deal with Bhaskar's treatment of these questions in detail; such is the task of the first substantive article in this volume and it has been well explored by other realists such as Keat and Urry (1975), Benton (1977), and Sayer (1992; 2000). However, of immediate

interest here is that from these considerations Bhaskar argued for an ontological realism and an epistemological relativism.

This latter statement might seem to give support to Kuhn and Feyerabend in their claim (cf. Kuhn 1970: 100–101; Feyerabend 1965: 168–171) that theories may be so radically different in meaning as to be literally ‘incommensurable.’ However, ‘if they were literally incommensurable, i.e. shared no element of meanings in common, it is difficult to see how scientists could have had grounds for preferring one to another. It is clear that at the moment of falsification, when one theory is replaced by another, some elements of meaning must be shared in common’ (Bhaskar 1978: 191). Bhaskar’s understanding of experimentation has important implications here. Any experiment depends on theorizing what mechanisms and structures need to be excluded, stabilized, and manipulated, and hence observations and experimental apparatuses are never theory neutral. However, as time passes, constant and elaborated testing of theories provides grounds for giving credence to particular practices and results. The sciences in general are continually consolidating and making relatively secure generalized claims, and scientific apparatuses are improved and better understood, an understanding that includes also specifying their limitations. Whatever their differences about particular issues at any time, scientists share a very large set of understandings. Moreover, these include not only scientific knowledge but also everyday ‘good sense,’ that which helps secure desired outcomes, and not mere common sense, which is often little more than prejudice. Kuhn’s claim that people in different paradigms literally ‘live in different worlds’ is an example of rhetorical excess (see also Keat & Urry 1975: 60–63).

We have thus far discussed some important trends in the philosophy of science that have had a major impact on the social sciences.⁴ These trends have been important for the growth and development of social scientific methodologies, as well as the development of various techniques of data collection and interpretation. Humean empiricism and Kantian idealism have each found their way into the social sciences, manifesting as positivistic analyses on the one hand and conventionalist, phenomenological interventions on the other. The next section will systematically set critical realism apart from these methodologies in order to get at what is distinct and similar about a realist social science. This objective is met by means of attention to modes of reasoning.

Modes of Reasoning, Methods, and Methodologies in Social Science

Attention to **methodology (modes of reasoning and explanation)** as distinct from methods (techniques of data collection and interpretation) is important, but sadly this attention is more often than not considered 'second' order to the 'real' business of research (Benton 1977; Frauley 2004). However, as Sayer argues, the most crucial moment in any discussion of method is how we conceptualize. His view of method is one that 'covers the clarification of mode of explanation and understanding, the nature of abstraction, as well as familiar subjects of research designs and methods of analysis' (1992: 3). In other words, **epistemology and ontology are key**. A concern only with method or techniques of data collection can easily slide into scientism, which 'uses an absurdly restrictive view of science, usually centring around the search for regularities and hypothesis testing, to derogate or disqualify practices such as ethnography, historical narrative or explorative research ...' (Sayer 1992: 4). As was shown above, **critical realism offers us an alternative strategy for investigating social phenomena, as it provides an alternative mode of reasoning and set of developed concepts through which to craft descriptions and explanations of social phenomena.**

As Norman Blaikie (1993) and Sayer (1992) have shown, research strategies (methodologies) are different from techniques of data collection (methods) in that they provide us with a mode of reasoning and sets of concepts that can be used to construct substantive theories and develop and evaluate methods. They offer us a way to understand the relationship between us and the things we seek to describe and explain. **All research strategies (methodologies) offer a theory of what knowledge is and how it can be attained (epistemology) as well as offering a theory of the nature of social reality/objects of investigation (ontology).** A crucial aspect of these strategies is that they are tools that allow us to **conceptualize the production of knowledge and our objects of investigation**, and they each offer us a different way of doing this, in that they use different analytical tools for the crafting of descriptions and explanations. In contemporary North American social science, the dominant research strategies stem from positivism (e.g., quantitative research) and **phenomenology/conventionalism (e.g., hermeneutic, interpretive, and constructivist research)** (see Benton & Craib 2001; Blaikie 1993; Delanty 1997; Keat & Urry 1975). It is pertinent, then, to briefly outline each in terms of its epistemological and ontological commitments.

As mentioned above, positivism is characterized by an ontology that holds that the universe is ordered by and comprises a series of atomistic and observable events that exist independently of our knowledge of them (but appear to us as regularities). It maintains that these events can be represented by universal truth claims, that only observable things can be considered real, that social reality is a set of complex causal relations between separate events, and that causes of human behaviour are external to individuals. The epistemology or theory of knowledge advanced by positivism holds that knowledge is to be attained through sensory perception via experiments, that our sensory perception of a thing corresponds to what that thing is really like, and that knowledge is gained toward prediction and explanation of the world. Prediction here is conflated with explanation. As there is a distinction made between theories that offer explanation and must be treated with scepticism, and observations that can be established with certainty, claims therefore are to be subject to verification or falsification.

The ontology advanced by a conventionalist/phenomenological position holds that **social reality consists of shared meanings and understandings**. Here the process of interpreting our social reality rather than apprehending the physical world through sensory perception is central. Social reality is not held to be a thing interpreted in different ways but rather to be those different interpretations, and is therefore regarded as **the product of our interpretations**. The epistemology advanced holds that **knowledge is derived from our everyday concepts and meanings, which are shared by members of our society**. Researchers seek to **understand the shared meanings about what is of interest and then attempt to 'translate' this into social scientific language using specialized categories** (see Blaikie 1993). Falsification or verification is rejected as inadequate for determining validity.

Realist ontology holds that objects exist independently of our knowledge of them, not unlike positivist ontology. Social reality is held to be stratified. That is, it is assumed to comprise three domains (outlined above): the real, the actual, and the empirical. For critical realists, causes of social phenomena are not located at the level of the empirical as they are for phenomenologists or positivists but in the 'deeper' level of the real (for Bhaskar 1975) and also the actual (for Sayer 1992). Social reality is held to be a constructed world – one comprising shared meanings – but underpinned by constitutive processes that require elucidation. The nature of the social world for realists is similar to that of conventionalists. However, unlike the latter, realism holds that there

is a deeper reality underpinning what we can see or what we can know or interpret. What we see is an indicator of other things that exist that require explanation.

A realist epistemology holds that social scientists need to build conceptual models in theorizing what underpins the social phenomena that are empirically apprehendable. These models are fallible. Whereas positivism attempts to find regularly occurring events or patterns in order to yield *predictions*, realism supposes that we can find tendencies or things that may or may not take place that may help us *explain* the event in question. Realism is often said to be 'in between' or a 'third way' between positivism and conventionalism.

Although there has been some discussion of the compatibility of the research methods rooted in the traditions of positivism and phenomenology (conventionalism) (Bryman 1988; Layder 1993), because these are different philosophies there are irresolvable differences. **Critical realism, as an alternative mode of reasoning and research strategy, shares some elements of both** and has the capacity to yield knowledge that would not be arrived at if one was working from either a positivistic or phenomenological strategy of research, especially as it concerns the integration of analyses of social action and structure. Realism's ontologically focused research questions have the potential to highlight new directions and forms of substantive research in the social sciences. It is highly unlikely that such questions would be generated or could be adequately dealt with by the methods informed only by positivism and phenomenology, as ontology is not explicitly attended to.

One major feature of critical realism that differentiates it from positivism and phenomenology/conventionalism is its explicit concern with ontology, the 'questions concerning the entities and structures that are constitutive of that region' or field into which one is enquiring (Malpas 2001: 125). Although both positivism and phenomenology have provided the basis for North American social scientific methods for over a century, neither provides a basis for a rigorous theorization of the object of investigation. This distinction is important as our research strategies shape our styles of thought, forms of analyses, and our modes of generating and evaluating empirical evidence. Positivistic and phenomenological research designs emphasize *how* knowledge is to be generated without regard for *what* the object of investigation must be like in order for it to be known in the way proposed.

As critical realism is primarily concerned with ontology, it is 'thing centred': it begins from questions about what exists (e.g., **the conditions**

under which social objects such as 'security' or 'racism' emerge). It then moves to questions of epistemology, concerned with the production of knowledge about what exists (e.g., how can 'security' or 'racism' be investigated). The demarcation of questions of ontology from epistemology in critical realism and the taking of the former as the starting point makes it unlike either of its competitors. This methodological difference reflects critical realism's retroductive logic (Blaikie 1993). Positivistic research designs, such as those informed by middle range theory (MRT), operate via deductive reasoning while phenomenological designs, such as those informed by grounded theory (GT), operate via inductive reasoning. As the two currently dominant modes of reasoning are not retroductive in nature, critical realist research strategies will be fruitful for expanding the range of potential research questions, lines of enquiry, descriptions and explanations beyond what is available to researchers whose strategies of enquiry are rooted in either positivism or phenomenology.

Given that a critical realist analytic can bear some similarities to more familiar social scientific research strategies, three caveats are worth entering. First, the suggestion that positivism and phenomenology have irresolvable epistemological differences that translate into an incompatibility of methods derived from these might be thought of as a claim that micro analysis is not compatible with macro analysis. Bryman (1988: 147) suggests that this understanding is common for the many researchers who link positivistic designs exclusively to macro analysis while linking phenomenological designs to micro-analysis. This understanding, however, is not a key issue and serves to divert out attention from more important matters. As Layder (1993: 110) has shown, and as realists in general assert, there is no necessary reason that investigation of social action and structure should be mutually exclusive, but this does not mean that the underlying modes of reasoning that animate positivistic and phenomenological modes of enquiry are compatible. Critical realism eschews both collectivism and individualism and emphasizes the articulation of social action and structure, holding that structure is antecedent and conditioning while action is reproductive and transformative. That is, there is an emphasis on the relation that obtains between situated and structured action (or human *relationships*) and a relatively enduring and conditioning set of social *relations*. The issue, then, is not whether macro-analysis is compatible with micro-analysis but with the compatibility of the different modes or logics of enquiry that inform the dominant research

methods. As Carter (2000: 64) points out, critical realism 'preserves the empiricist concern with a unity of method in the sciences, and its correlate emphasis on objectivity, whilst incorporating the interpretivist anxiety about the reification of structures by insisting on the crucial role of human agency in the maintenance and transformation of *social* structures.'

Second, it may seem from this that critical realism is simply a version of grounded theory or middle range theory (see Layder 1993). However, GT and MRT offer protocols for the collection and interpretation of data. MRT encourages research led by a clear theoretical idea formulated *prior* to research. With MRT, one collects data that fit with a preconceived hypothesis, as the aim is to verify or falsify that proposition. In this way it only generates new theory or concepts when propositions are falsified. Evaluating the adequacy of the proposition in relation to variables is primary, and the nature (qualities/characteristics) of these variables as social objects is not problematized. Also, MRT proceeds via deductive reasoning, unlike a realist retroductive mode of reasoning. Critical realism is not a form of grounded theory either. GT has a narrow, situated focus and aims to generate a specific substantive theory to explain the particular cases utilized as data. It proceeds via analytic induction (Layder 1993: 59–60) and is basically a 'constant comparison' that allows for the continual revision of a specific hypothesis. The generation of such a substantive theory remains constrained by the data collected, and so theory construction is limited to the specific data analysed.

The critical realist question, 'What must the object be like in order for it to be known in the way proposed?' is animated by retroductive reasoning. Retroduction is concerned with discovery; inductive and deductive reasoning are concerned with confirmation and verification, or, more generally, justification. A retroductive analytic is used to create a theoretical model of what might exist and what, if true, could explain the existence of that which is observed. In other words, 'This mode of inference in which events are explained by postulating (and identifying) mechanisms which are capable of producing them is called "retroduction"' (Sayer 1992: 107). Knowledge of how something is produced, as opposed to correlations or predictions, is the concern of this mode of reasoning. It 'proposes something that may not have been observed or could not be observed directly' (Blaikie 1993: 165), and it is this 'something' (whether actual or potential) that, if it were true (as knowledge is always fallible), would explain the existence of the social objects that MRT and GT take for granted.

Retroductive reasoning is not unfamiliar to sociologists, and we can draw on classical sociological theory for illustrative purposes. Marx and Durkheim employed what could be characterized as retroductive reasoning. Marx *inferred* from empirically apprehendable class conflict the existence of an inherently contradictory process of capitalist production. That is, if Marx's elaboration of a Capitalist Mode of Production were true, it could explain the emergence and reproduction of class conflict. Durkheim held that a social fact is the crystallization of constitutive and obfuscated social relations, and that these relations were what social scientists should be concerned with. Along these lines, the amount and kind of legal regulation in a society would refer to or indicate the presence of deeper constitutive relations; that is, for Durkheim, the level of social cohesion and the complexity of the division of labour can be inferred from the amount of legal regulation in a society. For Marx, from the level of exploitation and domination of one class by another it can be inferred that there is a degree of incongruence between the general life-enhancing capacities of the means of production and their restrictive use determined by the extant social relations of production. The idea that empirically apprehendable phenomena are effects that are related in a complex way to underlying and sometimes obfuscated constitutive and sustaining processes, and that these effects can themselves generate further effects, is something that a critical-realist-informed research strategy would be explicitly concerned with, unlike positivistic and phenomenological research strategies.

Third, it may be tempting to hold critical realism to simply be a version of an existing substantive realism such as criminological realism (left or right) (Lowman & MacLean 1992; Young & Matthews 1992a, b), legal realism (Hunt 1978; Leiter 1996), or feminist standpoint theory (e.g., Cain 1986, 1990; New 1998). These positions, however, offer substantive theories and attempt to be realistic in their descriptions of the empirical domains of concern. The realism that we are concerned with is very different from those that have been prominent in North American social science, especially sociology. Sayer (2001: 11, 70) captures this in his demarcation of 'empirical realism' from critical realism. Empirical realism 'identifies the real with the empirical.' That is, the domain of the real (tendencies and potentials) is held to be equivalent 'with what we experience, as if the world just happened to correspond to the range of our senses and to be identical to what we experience' (Sayer 1992). The 'realistic' theories do this and in doing so are empiricist. Critical realism, however, like positivism and phenomenology, is a

metatheory or a philosophy of science, not a substantive theory. Meta-theory is speculative and not determined by empirical data. As meta-theory, critical realism offers transcendental arguments that must be 'translated' into workable social science frameworks with specific regard to the object of investigation.

As critical realism is a metatheory, it is not the same or similar to the substantive realisms known to social scientists, nor is it the same as GT or MRT. Because it is a mode of reasoning that can be used to construct new substantive theories of particular objects and events, craft alternative research designs aimed at yielding alternative descriptions and explanations of social phenomena, and discover rather than justify propositions about the object of investigation, it offers a method different from the dominant research strategies currently employed in North American social science (Sayer 1992, 2000; Frauley 2004; Outhwaite 1983).

A Brief Overview of the Chapters

The first set of papers by Frank Pearce, Sergio Sismondo, and Garry Potter outline and assess crucial elements of the critical realist position. These papers show appreciation of its strengths, probe it to discover some of its weaknesses, and then offer some correctives. Pearce provides a detailed account of the early work of Bhaskar and particularly of the distinctions he makes, on the one hand, between the empirical, the actual, and the real and, on the other hand, between open and closed systems. These distinctions depend on the recognition that things are agents, with potential powers, the specific nature of which need to be specified, as do the conditions that help determine whether or not they will be exercised and with what consequences. Nature itself is stratified, in that there are different levels of sets of things, and the different levels at which the particular things interact are characterized by distinctive and emergent properties. Unconstrained nature is also generally unpredictable because the same 'things' are often operating under different and shifting conditions, hence producing a wide range of empirical outcomes. As Pearce shows, Bhaskar's account provides another understanding: of the nature of science; of equivalences and divisions within the sciences; of overlaps between some social sciences and some natural sciences; and of features unique to specific social sciences. At the same time, Pearce identifies ambiguities and weaknesses in Bhaskar's arguments and shows that they compromise the ability to break with humanist reductionism. In contrast, he suggests a more

strictly sociological line of development, which he illustrates by drawing on a nuanced reading of the Durkheimian tradition.

Sergio Sismondo offers a succinct discussion of a deflationist conception of truth, drawing on the sociology of science, arguing, against the dominant thought, that this is assumed to be wholly compatible with realism. Bhaskar's deflationist understanding of truth, asserts Sismondo, serves to confine realism to an ideological position on truth that negates the logical outcome of such a position, namely, pluralism. Sismondo makes his points by means of an investigation of three broad positions on truth, namely, realism, instrumentalism, and constructivism.

Garry Potter stresses the strengths of critical realism but then offers both a philosophical and a socio-political critique of much of the later work of Bhaskar, arguing that it potentially compromises not only critical realism but the (social) sciences as well. Potter, commenting on five 'critical moments' in the development of Bhaskarian realism, highlights for us Bhaskar's move away from realism and illustrates the 'sociological fracture lines of thinking within Critical Realism.' According to Potter, Bhaskar's later work accomplishes not an extension of realist thought but 'a wholesale re-definition of what realism is.' Against this latter turn in Bhaskar's thought, Potter argues that 'critical realism's initial role was an under-labourer for science and social science. This is, I still believe, its most important role. I also believe that not only critical realists but all intellectuals should engage politically with the world. However, propounding unconditional love, karma, God, universal self-realisation and reincarnation does not in fact facilitate such roles.' Potter's conclusion is that Bhaskar has become 'an idealist propagating errors about the nature of realism.' Having illustrated the socio-political consequences of the later Bhaskar, Potter turns to an examination of the 'intellectual moment' when Bhaskar moved away from realism.

The second set of papers by Anthony Woodiwiss, Richard Day, Raymond Murphy, and José López strive to show the ways in which realism(s) can be deployed to strengthen or supplement sociological enquiry. Woodiwiss is concerned to rescue sociology from constructionist idealism, which downplays the concept of social structure, with its importance being 'eclipsed by identity within social theory over the course of the last two decades of the twentieth century.' As a way of moving away from this position, he argues for making use of a Bourdieu-inspired 'realist reflexivity,' thereby combatting the flourishing of the 'humanistic idealisms of many weird and not so wonderful

kinds.' Social constructionism and postmodernism are included here. Advocating and using this realist reflexivity, drawing heavily on Michel Foucault's *Archaeology of Knowledge*, Woodiwiss seeks to demonstrate that this shift away from social structure to 'identity' weakens sociology's explanatory import because it premises the sociological enterprise on a humanist ontology, which negates the complexities and autonomous aspects of the social. It is this 'unthought' in much of the sociological enterprise that makes reflexivity necessary, and the reproduction of the weaknesses of a humanist epistemology that require this reflexivity to be of the realist variety. The supplanting of social structure with identity is argued to be a consequence of four major events:

First, as itself an object, sociology became the product of an Atlanticist institutional setting that was continuously transforming itself as the United States changed from being one of two super powers to being the sole super power and also, in ideological terms, changed from being a modern to being a post-modern society. Second, as a style of talking and writing, sociology became ever more culturalist, psychologistic and reflexive. Third, the more specific concepts that both depended on and gave content to the social structure problematic were picked off one by one and replaced by those, such as culture and discourse, that created the possibility of, or gave content to, the identity problematic. And fourth, strategically, all these developments were encapsulated in an activist feminism and an academically militant postmodernism, both of which sought the total re-theorisation of social life in a way that completely marginalized the study of capitalism and its pathologies. (pp. 114–15)

Richard Day's contribution explicitly takes up the position that post-structuralism has been wrongly and unfortunately been conflated with a poorly understood and stereotyped postmodernism, resulting in inappropriate dismissals. 'Too many writers, from too many traditions, have for too long been dismissing so-called "postmodernism" without saying precisely what this term means to them, and without providing theoretical argumentation based on close readings of texts to support their claims. That is, "postmodernism" is all too often built up as a straw school before being casually burnt to the ground, with its occupants silently engulfed in the flames.' Having said this, Day is clear that he is not defending eclectic and ad hoc invocations of Derrida or Jean-François Lyotard or others. He has in mind a defence of theorists

such as Foucault, Gilles Deleuze and Félix Guattari, and Jacques Lacan, achieved by demonstrating how their work cannot be adequately understood as examples of what he calls a 'straw postmodernism.' He thus hopes to make clear that some 'so-called postmodernists are not discursive idealists at all, but share realism's commitment to relative intransitivity and a depth ontology.' He attempts 'to show that postructuralist ontologies are like those of Bhaskarian-derived realisms, in that they are not classifiable as either positivistic or relativistic' and that at the same time these are '*unlike* their realist counterparts.' Drawing on Foucault, Deleuze and Guattari, and Lacan, Day advances an argument that 'post-structuralism' is dismissed too readily by its detractors but shows how this work can be used to rethink the way in which Bhaskarian realism has approached the issue of stratification as hierarchical, the agency-structure problematic, and the transitive and intransitive aspects of social and natural reality.

Raymond Murphy engages with the constructivist position on truth in his paper, arguing that critical realism 'offers a more complete analysis by situating local constructions in their context or nature's constructions.' This he demonstrates through a systematic critique of constructivism and through theorizing 'across the culture/nature divide,' illustrating the necessity of enquiring into the articulation of humans and non-human entities in the context of natural and technological disasters. These considerations also serve to strengthen his argument that in order to flourish, critical realism must 'also develop a strong empirical dimension.' By looking at the subject of disasters and the sociology of science, Murphy shows that a realist social science is better equipped to illustrate that nature is not 'impotent' but rather is dynamic. This is necessary in that social science must be able to effectively grapple with dynamism if it is to yield adequate explanations of what he calls 'culture-nature hybrids' and their impact on both the natural and social worlds.

José López concentrates on what he finds to be a tension between the depth explanation preferred by critical realism and the emancipatory effects to follow from this explanation. Lopez encapsulates the issue thusly: 'While I fully endorse the depth explanation model, I have a certain difficulty in accepting its alleged correlated emancipatory function. This is not because I believe that the knowledges produced by the social sciences cannot be deployed in attempts to produce social change, but because the emancipatory model, developed thus far by critical realism, fails to capture the processes and tensions involved in

using social scientific knowledge to produce social change.' To demonstrate his argument that 'critical realism is, at the moment, poorly equipped' to aid us in understanding the difficulties in deploying knowledge to foster social transformation, López engages with sociological and ethnographic analyses of American bioethics. These analyses illustrate what he views as the compelling depth-explanation aspect of critical realism as well as how the emancipatory aspect fails as it does not currently adequately address the pressures and constraints surrounding knowledge production and the deployment of knowledge toward social transformation.

The fourth set of papers by Robert Albritton, Howard Engelskirchen, Hans Ehrbar, and Andrew Sayer each deal with political economy and its relation to realism. Albritton's paper concerns the importance of elaborating 'a more objective Marxian political economy.' His elaborated conception of objectivity and ontology of capital is needed because, as Albritton stipulates, capital has played a central role in shaping modern history, and because of Marxian political economy's role and aim in understanding this, the latter needs to be central to modern social science. As claims to objectivity have also been prominent within Marxist theory, some elaboration of an adequate conception of objectivity is necessary in order to provide an adequate ontology of capital, especially the latter's 'inner logic.' The conception elaborated by Albritton 'is sharply at odds with disembodied positivist conceptions, and while in some ways close to Bhaskar's critical realism, it attempts to rethink 'objectivity' in relation to capital's unique ontology.' This uniqueness has to do with its 'self-reifying properties.' Thus, objectivity here has less to do with the epistemological notion of value-neutrality than with the nature and structure, or ontology, of capital as an object-like social entity and with the degree of the relatively enduring aspects of social structure. A theory of capital's 'inner logic' is of concern to Albritton and it is the moving toward this logic that leads to his engagement and disagreement with Bhaskarian realism.

Howard Engelskirchen's contribution looks to social labour in a Marxian sense, taking note of how realist currents within Marx have been bequeathed by Aristotle. Discussing Marx's critique of David Ricardo and his debt to Aristotle, Engelskirchen considers the commodity form of labour, getting at the 'generative structure that organizes the development process of [the latter's] actualization.' Engelskirchen argues that Marx did break from classical political economy by going beyond Ricardo's understanding of the value form that 'constituted the product

of labour' by posing the question of 'why labour takes the form of value in the first place.' It is this question, largely ignored by modern value form theory that is taken up by Engelskirchen, arguing that 'Marx developed, deepened and clarified the theory of value he inherited from Ricardo, but he did not abandon the scientific object to which Ricardo referred.' Thus there is only a 'continuity of scientific reference' left to tether Marx to Ricardo. The chapter uses Aristotle's distinction between attributive and constitutive forms of entities – his concern was with 'the potent form that ultimately organizes the power and processes of development of an entity' (a formulation very compatible with Bhaskar's understanding of a causal agent) – to illuminate Marx's view that labour always exists as a particular socially and historically constituted form of labour when it transforms raw materials in any particular mode of production. Richard Boyd's work is invoked to argue that while the world has an order, including causal powers irreducible to our projections on it, what is disclosed to us through our interaction with it is a mediated effect of both its structure and the way in which our causal powers are organized and deployed. As Engelskirchen shows, Boyd's arguments are compatible with, clarify, and develop those in Bhaskar's *Realist Theory of Science* and *The Possibility of Naturalism*. Thus the article builds on Bhaskar but innovatively uses Aristotle and Boyd to clarify some of Marx's work and then shows its compatibility with an elaborated critical realism.

Hans Ehrbar also addresses value in Marx, seeking to demonstrate through a close reading that Marx follows critical realist principles. At the same time, this reading illustrates how critical realist concepts can illuminate more systematically some of the obscurities present in *Capital*. Through his engagement with Marx and critical realism, he also is able to demonstrate one possible avenue for realist-informed social research. While some might object that Ehrbar is too 'orthodox,' in the sense that he accepts so much of both Marx and Bhaskar, in fact, Ehrbar provides an unusual in-depth and systematic consideration of the relation between Marx and Bhaskar. His reading of *Capital*, with a strong empirical orientation, shows how 'critical realism can enrich Marxism and vice versa.' Surprisingly, such close and careful readings of Marx are not so typical of critical realism, even though theorists like Andrew Collier or Sayer are appreciative readers of Marx. Given such attention to Marx and *Capital* (especially some of the more obscure arguments) is not typical of realists, in reality, Ehrbar's approach is 'heterodox' rather than orthodox.

Sayer attends to the implications of social scientific practice, arguing that the distancing of social scientists from the norms and practices of everyday life in the main leads to 'producing alienated accounts of social life in which it is difficult to see why things ... have significance for us and affect our well-being.' That is, that some things matter more than others is something that has not been attended to. Although critical realism has been able to chart new inroads in the philosophy of social science, it has not been able to illuminate a distinction between 'beings (characterized by needs, etc.) from objects that do not have needs and are capable of neither flourishing nor suffering.' Thus, Sayer argues for a 'needs-based conception of social being' by advocating a 'qualified form of naturalism' and insisting that as social scientists we attempt to get at empirical questions about 'what kinds of beings we are, and about how we mature and develop our capacities and susceptibilities.'

The final set of papers by Jon Frauley, Ronjon Paul Datta, and by Howie Chodos, with Bruce Curtis, Alan Hunt, and John Manwaring, all offer an engagement between realism and the work of other important social theorists such as Foucault and Gadamer. Frauley's contribution attempts to illustrate Foucault's realist and materialist leanings and situates this aspect of his thought within a prominent field of the social sciences, namely, governmentality studies. He takes issue with how Foucault has been taken up and applied in this field, arguing that prominent interpretations of Foucault's work have affected his expulsion from a field in which his work is held to be foundational. By using realist metatheory and Foucault's oft-ignored archaeological texts, Frauley seeks to demonstrate that the social analyses of governance offered by governmentalist would be strengthened and enriched if a more developed ontology, such as that provided for by realism, were to be utilized to bring out sympathetic elements in Foucault's work. In turn, this would provide for a retrieval of Foucault and engagement with social structure.

Ronjon Paul Datta, anchoring his work in Althusser's aleatory materialism, provides a trenchant metacritique of Foucault's Kantianism and its consequent nominalism, demonstrating how it leads to a displacement of politics by ethics. Foucault must be stood on his materialist feet since, as it is, he is standing on his nominalist head. At its core, Foucault's position is that objects of knowledge do not exist independently of their constitution in a discursive formation: things do not have an independent knowable existence but are only objectifications that occur through discursive practices. Thus, objectifications of humans do

not refer to anything beyond their constitution in discursive formations; rather, they are effects of relations between knowers and known, the existence of which are determined by practices. Foucault ends up committing a modified form of the Kantian epistemic fallacy and hence cannot form a concept of politics because he is unable to coherently theorize the extra-discursive. Datta argues that the materialist-realist distinction between the real-concrete and the object of knowledge, present but attenuated in Foucault, provides the means for thinking about the relation between discursive and social formations in which the latter is shown to be the major determinant of the former. To think adequately about this relation requires theorizing political power beyond power, in terms of asymmetrical potentials and the material social conditions through which the capacities of subjects are constituted, creating a greater potential for particular actualizations of this potential relative to others. Datta provides solid theoretical grounds for displacing genealogy with aleatory materialism, thus reclaiming radical social science and politics against histories of the present. He also provides a helpful distillation of aleatory materialism.

Chodos et al. cover broad terrain in their contribution, noting convergences and departures between Gadamer's approach and that of critical realism, notably in relation to ontological realism, epistemological relativism, judgmental rationalism, and ontological truth. One particularly intriguing argument is that through emphasizing Gadamer's ontology of the social, it is possible, contra the dominant understanding of Gadamer, to see that 'he articulates explicitly a minimal realist stance.' While Gadamer wishes to suggest, at times at least, that there is a very close relation between words and things, he also affirms that what exists in words does not, and cannot, exhaust what exists outside words. Gadamer's account of the linguistic foundation of the hermeneutical phenomenon thus negotiates, in ways that are instructive, forms of nominalism in which only that which is named exists, and forms of realism in which an autonomous non-human world would cause humankind to know it in specific ways.

However, even though 'language is the ontological condition of human understanding' for Gadamer, relativism is avoided and realism affirmed, in that 'world views are inseparably views of the world in itself, and these views change without ever exhausting the world in itself.' This is so, as Chodos et al. argue, because 'Gadamer insists that language is not a barrier to our understanding of a world beyond our consciousness, but rather is the medium that embraces and makes

possible all insights that we might have into such a world' and because for Gadamer, there is an 'ontological unity of subject and object through the medium of language,' which means that the ways in which the world is present for us is as the world is in itself. Such a line of argument, as the authors point out, raises interesting questions about what is meant by 'realism,' which they explore through engaging with truth as theorized in *Truth and Method* and with what is taken to be Bhaskar's 'category mistake' with his notion of alethic truth. Gadamer's Minimal Realism' provides an interesting dialogue between Gadamer and Bhaskar, and its basic argument, that there is a minimal realism in Gadamer, is sustained.

NOTES

- 1 For realists this formulation is underdeveloped in that it fails to differentiate between a mere correlation and an explanation where causal agents and processes are identified.
- 2 Realists point out that this does not explain a specific outcome and that in both cases, there is a failure to distinguish between providing grounds for *expecting* that an event will occur, and *explaining* why it occurs.
- 3 Realists would argue that this constitutes a metaphysics of experience since there is no logical reason to believe that what we can experience in any way exhausts the real.
- 4 There is no space here to list all of those philosophers who were a positive resource for Roy Bhaskar, but we would be remiss if we did not mention the works of Rom Harré, particularly (Harré 1970 and 1972), Harré and E.H. Madden (1973), and Harré and Secord (1972). In his later work Bhaskar continued to draw on Harré, but subsequently they have developed positions that in some ways differ significantly from each other's (cf. Harré and Bhaskar 2001).
- 5 See Danermark et al. (1997) for an extended discussion of retroductive reasoning. For a general discussion of the philosophy of social science, see Benton and Craib (2001).