CRITICAL REALISM

Basics and Beyond

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1 Critical Realism in Times of Crisis

Critical realism is a philosophy of science perspective that addresses a series of fundamental questions facing all students and researchers in the social sciences. These questions include: What is the overall nature of social reality? Do social phenomena exist independently of us when we study them? What sort of knowledge should we aim to produce and to what ends? In what, if any, respects are the social and the natural sciences similar? The answers offered by critical realism to such questions appeal to countless students and researchers throughout the social sciences. Yet much confusion also remains as to what critical realism is (and is not) and its implications for practitioners.

To clarify these matters, this book provides a systematic and accessible introduction to critical realism. Aside from presenting the basic features of this perspective, the book relates critical realism to competing perspectives, such as positivism and postmodernism; it takes stock of its development and reviews its current position in the social sciences; and it brings into focus the practical implications of using critical realism. Importantly, the evolution of critical realism can only be understood if it is seen in relation to wider socio-economic developments. In particular, it is worth noting that critical realism originated during a time of crisis; and today it once again evolves in a context riddled with multiple crises. Two of these – the crisis of neoliberal capitalism and the climate crisis – are used throughout the book as running themes to illustrate critical realist concepts and arguments, as well as to highlight the relevance of critical realism for making sense of the world we inhabit.

The present introductory chapter sets the scene for the rest of the book. It first traces the overall development of critical realism, then expands on the running themes before briefly outlining the book's structure and content.

THE DEVELOPMENT OF CRITICAL REALISM

Critical realism emerged during the crisis period of the 1970s. As post-war institutions and prevailing worldviews in the West encountered widespread criticism and resistance, and a new and more flexible neoliberal form of

capitalism gradually took shape, the validity of the dominant philosophy of science tradition, positivism, was increasingly brought into question. Appearing in an environment that was friendly to critical theory, critical realism is to no small extent a response to the resulting crisis of positivism.

Core concept: Critical theory

Critical theory originated in Germany in the 1920s at the famous Institute for Social Research in Frankfurt. It peaked in the 1970s when critical theorists spearheaded attempts to rethink Marxism against the backdrop of capitalist societies that were in deep crisis. The first generation included Theodor W. Adorno (1903–1969) and Herbert Marcuse (1898–1979) and was distinguished by attempts to combine and advance insights from Karl Marx (1818–1883), Max Weber (1864–1920) and Sigmund Freud (1856–1939) in critiques of instrumental reason (also known as rational choice) in philosophy, science and society. Jürgen Habermas became the leading theorist of a second generation that focused on communicative action and initiated a strategic move from negative critique to positive normativity. As a highly influential philosophical tradition rooted in unorthodox Marxism, critical theory remains a continuous source of inspiration and engagement for critical realists. Nowadays, critical theory also has a wider meaning, referring to any critical, theoretical approach with emancipatory intent, including feminist theory and critical realism itself (Nielsen 2007a). However, being primarily a philosophy of science perspective, critical realism is different from much other critical theory, which tends to deal more broadly with philosophy and social critique.

The inception of critical realism dates back to 1975 when *A Realist Theory of Science* (2008a), a book written by English philosopher of science Roy Bhaskar (1944–2014), was published. Drawing for instance on ideas articulated by Rom Harré (1927–2019) and Mary Hesse (1924–2016), the book introduced a new philosophy of science perspective, 'transcendental realism'. This perspective centred mainly on natural science. In his next book, *The Possibility of Naturalism*, which was published in 1979, Bhaskar developed the position 'critical naturalism', focusing specifically on the social sciences (Bhaskar 2015). Taken together, these two landmark works outline a philosophy of science perspective that covers the sciences as a whole. Eventually the labels 'critical naturalism' and

'transcendental realism' were pulled together to create 'critical realism' (Bhaskar with Hartwig 2010: 93; Maxwell 2012: 4–5).

Bhaskar's publications in the 1980s mainly built upon and refined the arguments contained in the first two books. Meanwhile, other scholars, some of whom had already for some time been developing ideas that resonated with those of Bhaskar, joined forces under the label of critical realism. Andrew Sayer is a case in point. His *Method in Social Science – A Realist Approach* (1984), focused on the implications of critical realism for social science (Sayer 2010). The success of this book indicates that many practitioners in the social sciences were receptive to critical realism. This trend became increasingly noticeable in the 1990s, at which point two books in particular helped to stimulate more interest in critical realism among social scientists. In the field of sociology, Margaret Archer's *Realist Social Theory – The morphogenetic approach* (1995) attracted considerable attention, whereas Tony Lawson's *Economics & Reality* (1997) became a focal point for discussions about critical realism in economics.

Subsequently, on the one hand, the twenty-first century has witnessed critical realism becoming an increasingly coherent perspective. The publication in 2007 of the *Dictionary of Critical Realism*, edited by Mervyn Hartwig, marks the high point of this coherency. The dictionary includes entries by numerous critical realists, of whom quite a few are from a new generation. On the other hand, it has also become increasingly clear that critical realism is still evolving. Not only did Bhaskar develop the perspective in new and controversial directions; several other tensions and openings also appeared. Far from being a once-and-for-all settled perspective in the philosophy of science, then, critical realism continues to develop and to be interpreted in different ways. One of the general trends in this context is that critical realists seek to address the challenges posed by postmodernists and radical social constructionists. Another trend is a growing interest in how critical realism can inform social scientific research.

However, contemporary critical realism is shaped not only by its own origins and subsequent academic challenges; as noted above, it is also once again developing within societies that face multiple crises. The current social context is, however, very different from that of the 1970s.

NEOLIBERALISM AND CLIMATE CRISIS

In the wake of the economic and political crises of the 1970s, a neoliberal turn took place. While neoliberalism originated as a theoretical and ideological discourse almost a hundred years ago, only in the 1980s did it emerge as a

relatively coherent political project in the advanced capitalist countries, a project aiming to fundamentally reshape the social order. The project consists of various pro-market, pro-corporate and individualist discourses and is underpinned by an ideology that pictures a capitalist order with global competition, deregulated financial markets, low taxes and free consumer choice as the best of all worlds. Whereas classical liberal thinkers tended to see the market and the state as a simple binary (more market meaning less state and vice versa), neoliberals see the state as a means to achieve marketisation and individualisation. With this view, the expansion of free markets necessitates an active and strong state. Moreover, key state institutions are preferably insulated from democratic pressures, central banks being a case in point (Harvey 2005).

Various overlapping phases can be identified in the trajectory of neoliberalism as a political project (van Apeldoorn and Overbeek 2012; see also Peck and Tickell 2002). In the first phase, the advocates of neoliberalism sought to destroy the legitimacy of the post-World War II social order of 'embedded liberalism', an important element of which was a welfare state that sought to reduce inequality among its citizens. In this social order, "market processes and entrepreneurial and corporate activities were surrounded by a web of social and political constraints" (Harvey 2005: 11). The proponents of the neoliberal project aimed to remove these constraints. Taking the position that inequality is positive, they launched an attack on the welfare state (Fairclough 2000: 147). The election of Margaret Thatcher as British Prime Minister (1979) and Ronald Reagan as President of the United States (1980) were events of major importance to the rise of the neoliberal project. Right-wing intellectuals and mainstream economists such as Friedrich von Hayek (1899–1992) and Milton Friedman (1912–2006) also played important parts by lending 'scientific' legitimacy to the neoliberal project.

Next followed phases in which the neoliberal project first gradually came to prevail and then became hegemonic. In the 1980s, neoliberalism, still widely regarded as an ideology, had been strongly contested, for instance by social democratic advocates of the welfare state. Yet with the fall of the Berlin Wall and the crumbling of the Soviet Union, an era of liberalist triumphalism began. Neoliberal ideas came to shape numerous policy areas and transformations, including the economic transformation of post-Soviet countries in Eastern Europe (Klein 2007). In advanced capitalist countries and elsewhere, neoliberal policies targeted institutions that had not previously been subjected to market forces, including state-owned companies, universities, public administrations and trade unions. The goal was to expose those institutions to market forces (as with the privatisation of state-owned companies), to make them operate in a more 'corporation-like' manner (as with reforms of the university system and

public administrations) or to weaken or undermine them (as with attacks on trade unions).

Paralleling these developments at the national level, a neoliberal turn also took place at the transnational level. Neoliberalism, for instance, came to shape policies of the European Commission and with the so-called 'Washington consensus' it became the dominant view in the International Monetary Fund and the World Bank in the 1990s (Harvey 2005; Patomäki 2007). The so-called 'Washington consensus' consisted of a package of policy proposals that governments in the global South had to adhere to in exchange for loans, relating, for instance, to reductions in public expenditure, deregulation, privatisation and trade liberalisation. Overall, neoliberalism became 'normalised' as a political tool kit suitable for anyone pursuing efficiency and economic growth. The Thatcherite slogan 'there is no alternative' came to be widely regarded as true, in some respects elevating neoliberalism to the status of being beyond reasonable critique. Crucially, neoliberal policies were implemented asynchronously and unevenly in different locations, and not infrequently by parties of the Left. Indeed, as a political project, neoliberalism has been highly flexible and pragmatic. Far from being obsessed with ideological purity, it has proved capable of adjusting to different contexts, adapting to the prevailing balance of power and institutional configurations (Fairclough 2005a: 25–26; Jessop 2016). The social order of 'actually existing neoliberalism' thus has many faces and often diverges considerably from neoliberal ideals (Peck et al. 2018). Nonetheless, in the course of the 1990s, capitalism became neoliberal, and this is still its prevailing form.

In recent times, it has become increasingly clear that the neoliberal project and neoliberal capitalism have moved into a new phase, a phase of severe crisis. The 2008 financial crisis was the latest in a series of ever more serious economic and social crises that have unfolded since the mid-1970s. Three persistent, long-term tendencies, each of which is a symptom of crisis, have been observed in the advanced capitalist countries: declining economic growth, rising economic inequality and increasing indebtedness of governments, households and companies (Streeck 2016: 47; see also Piketty 2014; Sayer 2016a).

On top of the multidimensional socio-economic crisis of neoliberal capitalism come the global crises of a rapidly escalating climate breakdown (also known as 'climate change') and biodiversity loss. Our thriving as human beings depends on the thriving of the planet we inhabit, yet because of our way of life – particularly in the rich countries – the life-giving systems of the Earth are under unprecedented pressure. For instance, because of human activities that entail emissions of carbon dioxide (CO_2) and other greenhouse gasses into the atmosphere, the climate is heating, resulting in the melting of ice sheets and

glaciers. Recent years have also witnessed an increasing number of climate events such as droughts, storms, floods, forest fires and heat waves that are likely to be results of the escalating climate breakdown. Such events have particularly disastrous – in many cases deadly – consequences for the world's poorest and most vulnerable people. Yet, the climate breakdown ultimately poses an existential threat to the entire planet (Raworth 2017; Ripple et al. 2019).

Critical realism in action: Twenty-first century economics

Contemporary mainstream economics is dominated by neoliberal thinking dating from the twentieth century and is by no means fit for the future, argues Kate Raworth (2017) in *Doughnut Economics*. Outlining an economics perspective suitable for the twenty-first century, Raworth stresses the need for new narratives and pictures of the economy. By focusing on change and development rather than policy advice, she arrives at a new picture of the economy: a doughnut. Its inner boundary (the hole in the middle) represents human suffering, whereas its outer boundary represents absolute planetary boundaries, such as biodiversity loss, climate change and ocean acidification. The task is to place the economy firmly within the doughnut's boundaries by avoiding human suffering while at the same time staying within environmental limits. Certainly, this is no easy task. Raworth shows that currently both the inner and the outer boundaries are being transgressed, meaning that the economy is in need of serious repair work. Against this background, the doughnut model is intended as a compass that can guide humanity in the twenty-first century. In criticising mainstream economics and developing an interdisciplinary alternative that encompasses both social and environmental issues, Raworth's approach resonates well with critical realism.

The United Nations (UN) formed the Intergovernmental Panel on Climate Change (IPCC) in 1988, and the first annual UN Climate Change Conference was held in 1995. For years, the climate scientists in the IPCC and elsewhere have been sounding the alarm bells, pointing to the potentially catastrophic consequences of global heating in the long run while calling for immediate and drastic reductions of greenhouse gas emissions. As early as 1997, the Kyoto Protocol established reduction targets for a large number of countries throughout the world, and in 2015, the Paris Accord was adopted by an even larger

number of countries. Still, temperatures continue their upwards climb as global CO_2 emissions keep increasing.

Our times, then, are pervaded by a "diabolical double crisis" (Sayer 2016b: 327) in the form of two deep and multidimensional crises: a socio-economic crisis and a climate crisis. Far from being separate crises, they are interrelated in various ways. Most importantly, the climate crisis needs to be seen in the context of global neoliberal capitalism, a system premised on endless expansion, rapid depletion of natural resources, rampant consumerism and high mobility of people and goods. It is not a foregone conclusion that it is possible to tackle the climate crisis within the framework of this system.

Critical realism in action: Inequality and ecology

Neoliberalism has in the preceding four decades resulted in an explosion of inequality and threatens to bring about a climate catastrophe. This observation is made by critical realist Andrew Sayer in *Why We Can't Afford the Rich* (2016b), a book that identifies and evaluates mechanisms generating inequality. By unleashing the financial sector and subordinating democracy to markets and corporations, neoliberals have succeeded in making the elite much richer and brought about a level of consumption that is grossly at odds with the environment. In recent years, numerous calls for greater equality and a greening of politics have circulated. However, we are still moving in the wrong direction, and Sayer thus urges the majority of us, the 99 percent, to bring about a society that advances equality, wellbeing and sustainability.

As noted above, the cases of the climate breakdown and (the crisis of) neoliberal capitalism serve as running themes throughout the present book to illustrate core concepts and insights of critical realism. To be sure, being a philosophy of science perspective, critical realism *does not* directly concern these – or any other concrete – issues. Instead, it mainly deals with general questions regarding knowledge and being. While one can as such make use of critical realism when studying all sorts of phenomena, we have chosen to relate specifically to these two interwoven themes, as they are major issues of our time. Indeed, whereas neoliberal capitalism is the target of widespread critique and resistance, the climate crisis is subject to rapidly increasing public engagement as more and more people wake up to the reality we face. We are thus dealing with

two issues of broad social interest; issues which have been addressed in countless research publications – including works by leading critical realist scholars such as Sayer, Bob Jessop, Norman Fairclough and Heikki Patomäki. With the book, we hope to show that critical realism is well suited to help students and researchers in the social sciences address these crises in a positive and constructive manner.

ABOUT THIS BOOK

While this book is intended for students and researchers in the social sciences, it can also serve as a short and broad entry point to critical realism for others. Overall, the book reflects the duality of critical realism. On the one hand, critical realism has a particular content as well as some absolute limits, by virtue of which it constitutes a comprehensive and holistic alternative to other philosophy of science perspectives such as positivism, hermeneutics and postmodernism. On the other hand, critical realism consistently engages with these and other perspectives; it is involved in attempts to make syntheses; and moreover, it continuously moves in surprising new directions, which give rise to controversies.

Chapter 2 addresses the critical realist critique of empiricism and positivism. Chapters 3 and 4 focus on the basics of critical realism: core arguments, concepts and understandings. Although the critical realist perspective on the sciences as a whole is addressed, the main focus is on the social sciences. Chapter 5 concerns the methodological content of critical realism and its implications for practical social research. Chapter 6 deals with the book's two key themes in more depth. It draws on several aspects of critical realism presented in previous chapters to show what a critical realist analysis of neoliberal capitalism and the climate crisis could involve. Chapter 7 zooms in on differences between and similarities of critical realism and postmodernism, whereas Chapter 8 concerns contemporary critical realism. The latter chapter thematises important developments, controversies and open ends, and considers critical realist engagements with some major social scientific traditions. Overall, Chapters 3 and 4 contain a positive answer to the question of what critical realism *is* (basics), Chapters 5, 6 and 8 concern what critical realism *can be* (beyond), whereas Chapters 2 and 7 delineate boundaries to establish what critical realism *is not*. Picking up on this theme, Chapter 9 concludes the book by briefly summarising what critical realism is (not). While the chapters can be read in chronological order, they can just as well be read in different orders.

In our experience, many students and researchers in the social sciences consider the universe of the philosophy of science to be difficult or even inaccessible. This is a shame as the philosophy of science has a lot to offer those studying the social world – and vice versa. We have thus, in various ways, sought to make the book as accessible as possible. Each chapter contains learning objectives and corresponding summaries. Several boxes that explain core concepts have been included, and throughout the book, we exemplify features of critical realism by relating them to the two aforementioned themes. Moreover, we use the case of contemporary mainstream economics to illustrate what research informed by critical realism *does not* look like, just as we give several examples of what such research *can* look like. The latter examples are included in a series of 'critical realism in action' boxes that present important contributions to the social sciences that either draw explicitly on critical realism or that implicitly resonate with it. More generally, it can be noted that while some scholars are explicit critical realists, others conduct research that is consistent with critical realism without drawing directly on it or having any intent to do so. Relating this observation to the above 'critical realism in action' boxes, Sayer is an example of the former type of scholar, whereas Raworth falls into the latter category. In all the 'critical realism in action' boxes, we indicate if the contribution is articulated from a critical realist perspective or if it resonates implicitly with critical realism.

The book covers the full spectrum of critical realism today, but it goes without saying that there are limits as to how much ground a short book such as this can cover. Much is left out when it comes to detail. The book is intended to be a concise guide to critical realism, not a detailed map of it. Yet we have included quite a few references to literature in the text to indicate where readers with an interest in a specific issue can find a more in-depth treatment of it. Indeed, it is our hope that the book will inspire readers to consult other works in the critical realist literature and beyond.

2 Realism(s) and the Critique of Positivism

Why deal at all with the philosophy of science? Why not just get straight to the point? Many social scientists and students seem to regard the philosophy of science as a source of irritation, something that can either be skipped altogether or which should be dealt with as quickly as possible so that one can move on to what really matters: analysing and explaining social phenomena by means of substantive theories, methods and data. Neglecting the philosophy of science is, however, a poor choice as it is impossible not to take a stand on philosophical questions when studying social phenomena. In fact, all research questions, social scientific theories, methods and empirical analyses are loaded with philosophical assumptions. By means of philosophy of science reflections, these assumptions can be analysed and discussed. Practitioners in the social sciences can thus use the philosophy of science to develop coherent research designs. Conversely, if we choose to ignore the philosophy of science, we cannot relate in a conscious and innovative manner to the basic assumptions underpinning research practices, be it our own or those of others. It should also be noted that we are not faced with an either-or choice here: We do not have to choose between doing social scientific research or engaging in philosophical reflections – we can and should do both. Overall, then, even those of us who are more attracted to down-to-earth social research than to unworldly speculations have good reasons to take an interest in the philosophy of science.

The present chapter introduces a series of key philosophy of science concepts: ontology, epistemology, idealism and realism. It then engages with some perspectives that critical realists are profoundly critical of, namely empiricism, positivism and critical rationalism. Finally, it considers the status of positivism in contemporary social science, particularly in mainstream economics.

Learning objectives

- Distinguish between different forms of realism
- Understand what the Humean notion of causation entails and why critical realists reject it
- Grasp some of the key ways in which positivism and critical realism differ
- Apprehend why critical realism should not be confused with critical rationalism
- Recognise how positivist assumptions continue to inform much contemporary social scientific research
- Gain insights into ways in which positivist assumptions underpin mainstream economics

REALISM(S)

Once you have said 'philosophy of science', you almost inevitably also have to say 'ontology' and 'epistemology'. *Ontology* means 'theory of being' and concerns what and how things exist in the world. *Epistemology* means 'theory of knowledge', and concerns what we can know about the world and how we know such things. If you ask if genes or social structures actually exist, you have ventured into the field of ontology. If you ask whether it is possible to gain objective knowledge of such phenomena, you have entered the field of epistemology. Ontology and epistemology concern being and knowledge at an abstract (philosophical) level. Thus, while one can make philosophical arguments in favour of a specific ontological or epistemological position, one cannot settle ontological or epistemological questions empirically.

Core concept: Ontology

Ontology is the theory or study of being and concerns what exists in the world and how it exists. It derives from the Greek words *onto*, meaning being, and *logos*, meaning 'an account', 'science' or 'theory'. An ontology is an abstract theory of what the world is like.

Core concept: Epistemology

Epistemology is the theory or study of knowledge. The concept derives from the Greek words *episteme*, meaning 'knowledge' or 'science' and *logos* meaning 'an account', 'science' or 'theory'.

A fundamental ontological distinction is that between realism and idealism. *Realism* is the view that a reality exists outside the human mind, whereas *idealism* is the view that no reality exists independently of ideas in the human mind. For example, a realist would say that the climate breakdown can exist and be in a specific way regardless of how it is understood or believed to be. The idealist, by contrast, would say that it is meaningless to speak of the climate breakdown as something that exists independently of our beliefs about it. The stand one takes on this matter has research implications: whereas for a realist it would typically make sense to try to measure climatic changes such as average temperatures and sea levels, for the idealist it would be futile given that no independent reality is believed to exist out there for us to measure. Historically, the disagreement between realists and idealists has been a source of controversy. Yet as contemporary philosophy of science perspectives and social scientific research generally build on some form of realism, the realism-idealism dualism is not central to many disputes. Instead, disagreements manifest themselves in debates between advocates of different forms of realism, i.e., among realists who disagree on *what* the nature of reality is. For example, is social reality ordered and characterised by stable patterns or does it change substantially over time? Does social reality contain structures that have effects independently of how/whether agents understand them? These are examples of ontological questions that divide realists. Related to this, Bhaskar points out that the important question is not *whether* to be a realist or not, but *what sort* of realist to be (Bhaskar 2011b: 25).

Core concept: Realism

Realism (also known as 'ontological realism') is the notion that an external, mind-independent reality exists, meaning that objects exist and are in particular ways independent of how they are perceived.

As will be discussed in the next chapter, Bhaskar and other critical realists advocate a *depth realist* position, which ascribes great importance to a deep domain of unobservable structures. In his early writings, Bhaskar contrasts this form of realism with what he terms 'empirical realism' (e.g., Bhaskar 2008a: 14–20). *Empirical realism* is the position that reality consists of that which can be observed or in other ways experienced through the human senses. By implication, that which cannot be observed/experienced, such as underlying structures, cannot be said to exist – and thus cannot be objects of scientific knowledge.

Classical empiricists such as Francis Bacon (1561–1626) and David Hume (1711–1776) embraced empirical realism and combined it with the notion that the task of the sciences is to inductively record conjunctions of isolated events so as to be able to identify event regularities and universal laws of the type 'when event A, then always event B'. As Hume was the first to point out, one can never say with certainty that A has caused B: the causal connection itself, the cause-effect relation, is unobservable, meaning that it cannot be known to be a part of reality. For instance, we can observe that the striking of a match (A) is followed by its flaming (B) or that a decrease in the price of computers (A) is followed by increases in the sale of computers (B). However, we cannot observe the actual connection that exists between events A and B. The *Humean conception of causation*, then, involves that causal relations are understood in terms of regular patterns of observable events ('when event A, then always event B'), while causal analysis is restricted to the study of such patterns (Kurki 2008: 6). That events occur in *regular patterns* is crucial if the empiricist understanding of science is to make sense (Bhaskar 2016: 24). By implication, although the empiricists were first and foremost interested in matters related to knowledge (i.e., epistemology), their position presupposes tacit *ontological* assumptions about what reality is like (Bhaskar 2011a: 49). Empiricists take reality to be characterised by the widespread occurrence of event regularities, and this notion involves *atomism*, i.e., the view that reality consists of clearly delineated entities with properties that do not change fundamentally in interaction with other entities.

THE SCIENTIFIC EXPERIMENT

Bhaskar's critique of empirical realism and the Humean conception of causation is grounded in *transcendental arguments*, i.e., in philosophical reflections on what the world must in all likelihood be like in order for some phenomenon or practice to be possible. Such arguments start out from conceptions of some

phenomenon or activity of interest and then asks what its necessary preconditions are. Bhaskar (2008a: 13) asks the following transcendental question: "what must the world be like for science to be possible"? Part of his answer is that *the world cannot assume the form suggested by empiricists*. He reaches this conclusion by selecting an activity that empiricists (like everyone else) regard as being of fundamental importance to much natural science: the laboratory experiment (Bhaskar 2009: 34–36). Generally speaking, scientists use laboratory experiments to create an artificially closed system in which they can explore a small part of reality independently of the rest of reality. For example, let's say that a scientist wants to explore the law of gravity by measuring the speed with which a coin hits the ground from 57 meters height. If she conducted this experiment by dropping the coin from the top of the Leaning Tower of Pisa several times, the results would undoubtedly vary because of the interference of external factors such as wind speed, birds, and passers-by. The experiment would, in other words, not work as intended. By contrast, the controlled situation created in the laboratory setting enables the scientist to prevent such external factors from interfering with the experiment, ensuring that the same result is reached every time it is repeated.

This example is certainly a crude caricature of natural scientific experiments. However, the point, which also holds true in relation to the far more complex and sophisticated experiments actually conducted by natural scientists, is that scientists use experiments to isolate the part of reality they wish to explore *with the intention of producing a situation in which event regularities occur*. What, then, must reality outside the laboratory be like if scientific experiments are to make sense? The answer is that this reality cannot typically be characterised by the occurrence of event regularities. If reality outside laboratories was characterised by such regularities, scientific experiments would be redundant and thus meaningless (see Bhaskar 2008a: 23–66). Bhaskar's conclusion is that the core natural scientific activity of laboratory experiments becomes irrational, indeed incomprehensible, if the implicit ontology of empiricism is accepted. The consequences of this conclusion are far-reaching: once it has been found that the empiricist ontology, including the Humean notion of causation, is likely to be misleading, it can also be concluded that the empiricist vision of science cannot be sustained.

Building on this observation, we now turn to the critical realist understanding – and critique – of positivism. It is worth noting that aside from considering positivism a philosophy of science perspective, Bhaskar regards it to be an ideology that relates to capitalism, individualism and utilitarianism (2009: 226–308, 2011a: 49–65). Our focus in what follows is, however, limited to positivism as a philosophy of science perspective.

POSITIVISM VERSUS CRITICAL REALISM

Whereas the classical empiricists focused on natural science, positivism is a perspective that also relates to the social sciences. According to Bhaskar (2011a: 49), empiricism is a central component of this perspective. He even suggests that "[m]ost of positivism is already contained [and] elegantly expounded in the writings of Hume" (2009: 226). Bhaskar (2009: 227–228) associates positivism with scholars such as Auguste Comte (1798–1857), John Stuart Mill (1806–1873) and Émile Durkheim (1858–1917) as well as with the so-called logical positivism of the Vienna Circle, which emerged in the interwar period. It expounded a rather extreme form of positivism, which became the dominant perspective in the philosophy of science in the mid-twentieth century. The members of the Circle – for instance, Otto Neurath (1882–1945) and Moritz Schlick (1882–1936) – embraced formal logic, believing that it would be possible to solve major philosophical problems by formulating them in mathematical terms. Yet like the empiricists, they regarded observation to be the foundation of knowledge. In the words of some of the leading logical positivist thinkers, "there is knowledge only from experience, which rests on what is immediately given" (Hahn et al. 1929). In this context, logical positivists championed the so-called 'verification principle' according to which all scientific propositions can be broken down to more basic elements that are verifiable (i.e., can be proved right) by observation. Propositions that are not ultimately verifiable are to be considered unscientific and metaphysical.

Other traditions that, according to Bhaskar (2009: 120), can be seen to be members of the wider positivist family include structuralism, functionalism and behaviourism. In critical realism, then, positivism is not merely associated with empiricism but with a series of diverse traditions that overlap to varying degrees. It falls beyond the scope of the present book to introduce these traditions (on positivism, see Steinmetz 2005). Here a schematic outline of the positivist perspective will have to suffice. We regard the perspective to be associated with the following assumptions:

1. The patterns of social reality are stable, meaning that patterns currently existing in society will also exist in the future. The Humean conception of causation and the ensuing atomistic ontology is accepted.
2. The purpose of social science is to identify causal laws. Researchers explain observable event regularities ('when A, then B') by showing that they are instances of a causal law. This model of scientific explanation is known as the 'covering-law model'.

3. All sciences share a common logic and should adhere to strict methodological criteria. Social scientists should thus study society in much the same way as natural scientists study nature.
4. An important goal of social science is to not only explain but also to predict events. Doing so is possible because the laws of today are also the laws of tomorrow.
5. Observations and logic constitute the foundations of true knowledge.
6. Scientific knowledge grows steadily through the testing of hypotheses derived from statements of laws.
7. Scientific knowledge is to be objective in the sense of being neutral. It is not to be contaminated by values, opinions and beliefs.

It is worth reiterating that this is a schematic outline: not all forms of positivism incorporate each of these assumptions, but all will incorporate at least some of them. As for critical realism, it takes issue with all the assumptions and hereby breaks fundamentally with positivism. Critical realists instead make the following assumptions:

1. The social world is a system in which there are no immutable patterns and in which entities can change in their interactions with other entities. Consequently, regularities in social reality develop over time and often differ from one setting to the next.
2. Social phenomena thus cannot be adequately explained by being subsumed under statements of laws.
3. The natural and social sciences are similar in some respects yet differ fundamentally in others.
4. Social scientists should focus on explaining rather than predicting phenomena.
5. Scientific knowledge is fallible and without unquestionable foundations.
6. Scientific knowledge both grows and changes.
7. Scientific knowledge neither can nor should be entirely value-neutral. Indeed, those who study the social world should use their knowledge to formulate social critique, hereby contributing to bringing about progressive social change.

In the chapters that follow, these views will be elaborated and explained. To render it more concrete how positivist assumptions can be reflected in social scientific research, we draw on an article by Jan Selby (2014). This article identifies a positivist research programme that seeks to gauge the links between

climate change and *violent conflict*. The positivist nature of this research programme manifests itself in a number of ways:

1. It implicitly adopts the ontological view that reality is characterised by general regularities.
2. Specifically, it aims to find such regularities when studying climate-conflict links by seeking to pinpoint statistical correlations between various independent variables relating to the environment (e.g., changes in rainfall or temperatures) and dependent variables related to conflict (e.g., civil war or interstate disputes) (2014: 833).
3. It uses sophisticated quantitative methods, similar or identical to those used by natural scientists.
4. It makes statistically inferred *predictions* about the likelihood of future climate-related conflicts based on identified correlations.
5. It understands knowledge to be founded on observations, here in the form of quantitative data.
6. It assumes that the way to advance knowledge is to test general hypotheses about relationships between variables using ever more quantitative – and ever more accurate – data on climatic changes and conflict.
7. It aspires to produce rigorous, value-free knowledge (2014: 831).

Adopting a position informed by critical realism and critical theory, Selby provides a scathing critique of such positivist research on climate conflict. He observes that the findings of this research programme are consistently inconsistent. For instance, some studies find that high rainfall in Africa is correlated with *increased* conflict, whereas other studies find that high rainfall in Africa is correlated with *reduced* conflict. Still, other studies find no correlation between rainfall and conflict. Overall, the research programme has not been able to establish general correlations between climate and conflict variables. What to make of this? Apart from showing that the quantitative data used to establish correlations suffer from some serious shortcomings, Selby points out that even if a causal link existed between climate change and conflict, it would be unlikely to manifest itself in general statistical correlations. The reason for this is that the link would "involve countless different and contradictory causal mechanisms, each mediated by countless further intervening factors – in combination rendering it distinctly unlikely that meaningful statistical regularities could ever be identified" (2014: 839). More generally, he notes that correlations tell us little about causal relations, meaning that they are often of modest value for explanation.

Selby also questions the aspiration to make *predictions* based on correlations: even if the identified correlations between climate change variables and conflict variables happened to be meaningful and general (which they are not), it would not be possible to use them as a basis for making inductive predictions about future correlations between the same variables (2014: 840). The main reason for this is that human-made global climate change has not happened before, meaning that it becomes problematic to infer from past climate conflicts to future ones. Finally, he points out that positivist climate conflict research, far from being objective and *value-neutral*, is inherently conservative. By taking as its premise that it is possible to make predictions of the future based on the past, it is assumed that the world will not change. Selby also suggests that positivist climate conflict research tends to reflect a Northern perspective, which sees climate conflicts as entirely internal to the global South and external to the liberal order of the North (2014: 845). Based on "an idealised neo-liberal view of economic growth", research in this programme regards 'economic development' as the means to prevent future climate conflicts (2014: 847).

CRITICAL RATIONALISM VERSUS CRITICAL REALISM

Critical realism is not only inconsistent with positivism in its 'pure' forms; it also diverges from philosophy of science perspectives that to a more limited extent incorporate positivist assumptions. A case in point is the so-called 'critical rationalism' of Austrian-British philosopher Karl R. Popper (1902–1994). Popper established himself as a formidable critic of the Vienna Circle's logical positivism, and in some respects, his perspective resonates with critical realism (Brinkmann 2018: 55–56). For instance, Popper acknowledged the existence of unobservable structures and considered it a task of the sciences to produce knowledge of such structures (Gorton 2006: 29–30). In other respects, Popper accepted the positivist agenda, rendering his perspective directly at odds with critical realism. For instance, he took the position that natural and social science should use the same methods. Moreover, the aforementioned covering-law model of explanation, which is premised on the Humean conception of causation, originated in his work (Popper 1992) as well as in that of Hempel and Oppenheim (1948). On this view, a *scientific* explanation is one that places an observed event under a general law: "to give a causal explanation of an event means to deduce a statement which describes it, using as premises of the deduction one or more universal laws, together with certain singular statements, the initial conditions" (Popper 1992: 60). An observed event could be that two

countries, say Germany and France, are not at war with one another. Noting that these are both democratic countries (initial conditions) we could, on this view, potentially explain the event by placing it under the law-statement 'democracies do not go to war with one another' (the so-called 'democratic peace theory'). Scientific knowledge is understood to advance through falsifications of hypotheses derived from such law-statements. Instead of seeking to verify hypotheses as suggested by the logical positivists, then, the researcher should seek to prove hypotheses wrong. Thus, instead of seeking to prove that the democratic peace theory is true, the researcher should seek to find cases that proves it wrong (indeed, a number of cases do precisely this).

Although the covering-law model was mainly developed for the natural sciences, Popper also argued that it should be a goal for the social sciences to discover 'social laws' which, like other laws, apply everywhere and at all times (Popper 1986: 102). He suggested that there is "a really fundamental similarity between the natural and the social sciences. I have in mind the existence of sociological laws or hypotheses which are analogous to the laws or hypotheses of the natural sciences" (Popper 1986: 61). While it would be inaccurate to label Popper a positivist, the covering-law model and his belief in the existence of social laws are consistent with positivism. Indeed, the aspiration to discover social laws dates back to the work of Comte, widely considered the father of positivism. Yet when it comes to the discovery of social laws, the track record of the social sciences is very poor. It is telling that the examples of social laws provided by Popper (1986: 62–63) were either trivial to the point of being meaningless (as in "you cannot make a revolution without causing a reaction") or have turned out to be wrong (as in "you cannot have full employment without inflation"). Seen from a critical realist vantage point, the reason for the failure of the social sciences to identify universal social laws is simple: the social world is not governed by such laws, meaning that they do not exist out there for social scientists to discover. Critical realists thus break with the covering-law model of explanation and also in other respects question the critical rationalist position (see, e.g., Sayer 2010: 152–155; Bhaskar 2016: 29). Overall, then, it is important not to confuse critical *realism* with critical *rationalism*.

POSITIVISM IN CONTEMPORARY SOCIAL SCIENCE

How relevant is the critique of positivism today? Bhaskar recognises that positivism – as a strand of thought *in the philosophy of science* – was considerably weakened after World War II (2009: 228–229) and that, in the face of extensive

criticism, it had collapsed as a hegemonic project by the 1970s (2008b: 224–225). Among philosophers of science, then, positivism has long been a "swear-word by which no one is swearing" (Williams, cited in Bhaskar 2009: 226). It would, however, be a big mistake to conclude against this background that no contemporary social scientific research is influenced by positivism. A study of the current status of positivism found that it continues to be "alive and well" in large parts of the social sciences (Steinmetz 2005: 29–30). Typically, however, positivism in contemporary social science comes in versions that are moderated in one way or another.

The use of the term positivism is often loaded with either strongly negative or strongly positive connotations. Many scholars associate positivism with a deeply problematic way of conducting social scientific research, whereas many others, not least in the United States, attach the label as a 'badge of honor' to research that in their view lives up to high standards of solidity and rigour (Johnson 2006: 224–225). Indeed, the United States remains a stronghold of positivism. To illustrate, in a survey conducted in 2011 among researchers in the field of international relations, respondents were asked to classify their research as either 'positivist', 'non-positivist' or 'post-positivist' (the terms were not defined in the survey). Approximately two thirds of the US-based respondents opted to categorise their own work as 'positivist' (Maliniak et al. 2018). In eight other countries, at least half of the respondents called themselves positivists. The contemporary relevance of positivism is, however, not primarily a question of the extent to which scholars self-identify as positivists (however defined). Above all, it is a question of the extent to which positivist assumptions shape the manner in which social scientists actually study social phenomena. And both in the United States and elsewhere positivist assumptions continue to shape much research.

Importantly, the prominence of positivism varies from one research field to the next. For instance, strong positivist currents have been observed in fields such as international political economy (Cohen 2010), international business research (Birkinshaw et al. 2011) and sociology (Little 2010), whereas anthropology is a prime example of a discipline in which positivism has not been influential (Steinmetz 2005: 4). In political science, much research is implicitly positivist. Bevir and Rhodes (2016: 4) observe that even though many "political scientists repudiate positivism, they often continue to study politics in ways that make sense only if they make positivist assumptions". Furthermore, Bevir and Rhodes point out that such assumptions underpin much behaviouralist and rational choice research. In this context, we can note that critical realists have for a long time criticised rational choice theory, including its notion that

human behaviour can fruitfully be understood in terms of cold utility maximisation (e.g., Archer and Tritter 2000; Porpora 2015).

Research unpinned by positivism rarely explicates the ontological and epistemological assumptions that are being made. Indeed, "sophisticated meta-theoretical discussion and reflection by those who operate in the shadow of positivism has almost disappeared" (Fleetwood and Hesketh 2010: 116). Instead, the emphasis is placed on the use of sophisticated, cutting-edge methods. Frequently, the use of such methods reflects aspirations to meet the standards of the natural sciences. In this context, it has been noted that *methods* have become "a central site for the reinforcement of positivist hegemony in the social sciences" (Steinmetz 2005: 45). This observation relates to research as well as to education. Early on in their studies, most students in the social sciences encounter a statistics course in which they are introduced to quantitative methods and trained in using them in particular ways – often ways that resonate with positivist assumptions. The epistemological and ontological commitments one inevitably makes when using a method are typically not addressed in such courses. As such, many students are introduced to positivist thinking not through texts written by positivist philosophers, but through practical training in statistics classes (Steinmetz 2005: 45).

What does it mean that methods are being used in ways resonating with positivist assumptions? To illustrate, we can take the widely used method of inferential statistics (also known as analytical statistics). It involves generalising about some 'population' of interest based on a 'sample' that is held to be representative of that population. The method is applied, for instance, when data gathered through opinion polls are used to make predictions about election results. Doing so only makes sense if it is (ontologically) assumed that social reality is characterised by stability and regularity. That is, to generalise beyond actual observations/data, one needs to assume that patterns are to a considerable extent stable and uniform across settings (Moses and Knutsen 2019: 90). Moreover, the use of inferential statistics only makes sense if it is (epistemologically) assumed that it is the task of researchers to make generalisations in the first place. While these assumptions are consistent with positivism, they sit uneasily with critical realism. Still, some critical realist scholars are not dismissive of using inferential statistics, albeit cautiously.

Critical realism in action: Mixed methods

Noting the surging interest in combining quantitative and qualitative methods under the heading of 'mixed methods research', Hurrell (2014) argues that critical realism is better suited to underpin such an endeavour than are competing philosophies of science. Positivist research exhibits a deep-seated preference for quantitative data and methods that can form the basis for generalisations and predictions. Conversely, research in the interpretivist tradition revolves around meaning and social interaction in local contexts. Consequently, it relies heavily on qualitative methods such as interviews, observations and case studies, while tending to dismiss quantitative methods. Overcoming this quantitative-qualitative dualism, critical realism can support mixed methods research that, on the one hand, analyses widely occurring phenomena of interest while, on the other hand, it explores in depth why those phenomena occur in some but not other contexts. Noting that many critical realists are sceptical of analytical statistics, and stressing the importance of context sensitivity and research purpose, Hurrell suggests that regression analyses can in fact be useful when seeking to identify patterns within a population. Subsequently, case studies can be used to identify the mechanisms that have caused such patterns to occur. Hurrell uses the case of skill deficits in Scotland to exemplify mixed methods research.

The point is neither to suggest that using quantitative methods by definition makes one a positivist, nor to give the impression that positivistically inclined researchers do not make use of qualitative methods. Quantitative methods – not least descriptive statistics – can be used consistently with various philosophy of science perspectives, critical realism included. And although positivists tend to prefer experiments and statistics over other methods, they can and do also make use of more qualitative methods such as comparisons and case studies (Moses and Knutsen 2019: 42). It is worth noting that positivism has been associated with *both* the recent move towards the use of machine learning and artificial intelligence to analyse 'big data' (Sætra 2018) *and* with computer-assisted qualitative data analysis (Brinkmann 2018: 60).

Overall, then, Milja Kurki (2008: 67) is correct in noting that "positivist assumptions are still very much around in the philosophy and practice of social science". She makes the further observation that the covering-law model of explanation "still forms the basis of most textbook accounts of research methods, and, indeed, the core of research training programmes for many social sciences" (2008: 67). Indeed, when contemporary positivists refer to *the* 'scientific method' what they typically have in mind is some version of the covering-law model. The bulk of contemporary positivist research does not, however, use the language of (social) laws. In the recognition that invariant regularities ('when A, then always B') are rare in the social domain – rendering any precise prediction inherently difficult – probabilistic modes of explanation (when 'A', then 'B' with 'X' probability) became popular. Closely linked to the covering-law model, the ambition with such modes of explanation is to 'cover' observations under more or less general causal theories or 'statistical laws' that aim to predict the frequency with which specific types of events occur (Gorski 2018: 26). The focus on regularities of a probabilistic sort presumes considerable order and repetition in the social realm. As such, it resonates well with positivism.

POSITIVIST ECONOMICS

While positivist assumptions and methods are widespread in the social sciences, nowhere are they found in as pure and hegemonic form as in mainstream economics. Indeed, mainstream economics, often referred to as neoclassical economics, "can be seen as the home of positivism in the social sciences" (Brown 2007). It is thus not surprising that mainstream economics is the target of critical realist critique (e.g., Jespersen 2009; Nielsen 2011). Contemporary economics originated in the late nineteenth century when mainstream economics transformed into a positivist science that sought to mirror the natural sciences by giving absolute primacy to mathematics and deductive model-building (Lawson 1997, 2019). The sophisticated mathematical models utilised by economists are meant to serve as artificial replicas of the laboratory conditions established in the natural sciences. Such models picture a world consisting of a mixture of atomistic rational agents, market forces and invariant event regularities.

Critical realism in action: Digital economies

In *Profit and Gift in the Digital Economy*, the critical realist Dave Elder-Vass (2016) argues that the dominant ways of understanding the economy – the neoclassical and Marxist traditions – are both misleading. The economic system is neither a pure market economy as neoclassical economists believe, nor is it as overwhelmingly capitalist as Marxists would have us believe. By misrepresenting the economy, the dominant models constrain our ability to creatively imagine future economic systems. Elder-Vass sees contemporary economies, not least the emerging digital economy, as including diverse and hybrid forms in which market and non-market practices co-exist and interact. Analysing such cases as Wikipedia, Google, YouTube and Facebook he shows that practices assume a variety of both capitalist and gift economy forms. Elder-Vass argues that his perspective provides a route to improving the economy that is more viable than the paths typically offered by critics of neoliberalism, namely one that – instead of abandoning capitalism altogether – seeks to "introduce, develop and support progressive economic alternatives within our diverse economy, while seeking to cut back the more harmful forms and aspects of capitalism" (2016: 14).

The purpose of models in mainstream economics is typically to generate precise predictions of future economic quantities such as economic growth, employment and inflation rates. As is the case with opinion polls, these predictions often turn out to be wrong – sometimes spectacularly so, as was the case with the over-optimistic predictions preceding the great financial crisis in 2008. Economists had produced a large number of models that predicted a short and slow downturn succeeded by a rapid economic recovery. Yet as we now know, the global financial sector came crumbling down, resulting in years of pessimism in the world outside the 'laboratories' of the economics profession. Mainstream economists do not, however, typically regard failed predictions as an indication that this positivist endeavour is problematic in the first place. Rather, failed predictions are considered a result of incomplete knowledge of economic reality, a problem that is to be dealt with by gathering more data, conducting more objective research and constructing even more sophisticated

mathematical models. The findings and recommendations of mainstream economics continue to be widely thought of as neutral, not only by its practitioners but also by most politicians, journalists, experts and lay persons. This neutral image of mainstream economics in public life and media discourse testifies to the continued prevalence of positivism not only in scientific circles but also in much broader circles in contemporary society.

Summary

- 'Realism' is the view that a mind-independent reality exists. Whereas positivism is underpinned by 'empirical realism', meaning that reality consists only of that which can be observed/experienced, critical realism is premised on a 'depth realist' position according to which reality contains a deep domain of unobservable structures.
- Empiricists and positivists endorse the Humean conception of causation, which entails the view that reality is characterised by invariant event regularities. Critical realists reject this ontology, arguing that while there are regularities in the (social) world, they change over time and can vary from one location to the next.
- Positivism embraces a predictive and value-neutral social science, whereas critical realism argues for an explanatory social science that cannot and should not be value-neutral.
- While critical rationalism in some respects breaks with positivism, in other respects it resonates with key features of positivism.
- In the social sciences, much research remains committed, albeit often implicitly so, to positivist assumptions. Engaging with positivism thus remains relevant even though this position has long been considered a dead horse in the philosophy of science.
- Mainstream economics is based on positivist assumptions, which is, for instance, reflected in aspirations to produce objective knowledge and make precise predictions.

3 Basics: Ontology and Epistemology

It is not difficult to criticise positivism. However, if a different type of research is to be practiced, the existence of a compelling alternative is essential. Critical realism aspires to be such an alternative. The answers it gives to the question of what the social sciences should seek to accomplish differ fundamentally from those given by competing perspectives such as positivism, hermeneutics and radical social constructionism. In this chapter, we explain what sort of knowledge the social sciences should aim to produce according to critical realism; we also bring up the fundamental question of the extent to which social science differs from natural science. The stance taken by critical realism on these issues is grounded in a particular understanding of the nature of (social) reality, i.e., in a specific ontology. Indeed, no other philosophy of science perspective ascribes as much importance to and provides as comprehensive an ontology as does critical realism. In what follows, the general ontology and the ensuing epistemology of critical realism are introduced. Together with the next chapter, the present chapter unpacks what can be thought of as the basics of critical realism.

Learning objectives

- Comprehend the difference between the transitive and intransitive dimensions of science
- Understand the three domains of reality
- Apprehend the difference between closed and open systems
- Grasp what stratification and emergence involves
- Understand what critical realists consider to be the prime objects of the natural and social sciences
- Recognise what the main similarities and differences between natural and social science are held to be

THE TRANSITIVE AND INTRANSITIVE DIMENSIONS

Empirical realism places human beings – or rather their sense experiences and constructions – at the centre of everything. As mentioned in the previous chapter, critical realism breaks with this worldview. In this context, a basic distinction is drawn between two dimensions of science. On the one hand, we have the *transitive dimension,* which consists of our knowledge of the world. This dimension encompasses the theories, paradigms, models, concepts, descriptions, facts, methods, etc., that exist at a given point in time. Bhaskar refers to such transitive objects as the raw materials of science, his point being that already produced knowledge is an indispensable means to produce new knowledge (Bhaskar 2008a: 11–14, 51–52; 2015: 11–13). The production of new knowledge, in other words, dynamically builds upon and transforms existing knowledge. Science must thus be "conceived as an ongoing social activity; and knowledge as a social product which individuals must reproduce or transform, and which individuals must draw upon to use in their own critical explorations of nature" (Bhaskar 2008a: 240). To illustrate, current scientific knowledge of the climate crisis forms part of the transitive dimension. The reports that are continuously published by the United Nation's Intergovernmental Panel on Climate Change (IPCC), in which the state of knowledge on a wide range of topics related to the climate crisis are summarised, are transitive objects. Today's knowledge of this phenomenon builds upon previous knowledge, just as tomorrow's knowledge will draw upon and transform what we know now.

On the other hand, the knowledge produced by science is knowledge *of* something. This 'something' is the *intransitive dimension*, which consists of the objects of science – i.e., the countless things that researchers study, be it political institutions, renewable energy, the nervous system, the climate breakdown or something else. As mentioned above, ontology concerns being and thus the general nature of this dimension – and it is by insisting that intransitive objects exist independently of human knowledge of them that Bhaskar's philosophy of science perspective comes to be based on realism. Following on from this, it is maintained that the objects of the intransitive dimension do not change in sync with changes in knowledge of them; i.e., with changes in the transitive dimension. For instance, our knowledge of the climate breakdown can change, but if it does, change in knowledge would not reflect a corresponding climatic change. Conversely, a worsening of the climate crisis can occur without parallel changes in our knowledge of this development. The objects in the transitive and intransitive dimensions are, in other words, not inextricably glued together:

> Transitive knowledge and intransitive objects, beliefs and beings, thought and things, descriptions and referents, can each now change without a corresponding change [...] in the correlative term on the other side of the [transitive/intransitive] divide. (Bhaskar 2009: 52).

In contrast to empirical realists, critical realists consider being (the intransitive dimension) to be more fundamental than knowledge (the transitive dimension). According to Bhaskar, "it is humanity that is the contingent phenomenon in nature and knowledge that is, on a cosmic scale, so to speak, accidental" (2011a: 25). This stance does much to explain why critical realists focus more on ontology than on epistemology. In this context, they reject attempts to reduce ontology to epistemology, i.e., to reduce statements about being to a question of what is known. In critical realist terminology, such an obliteration of the intransitive dimension is referred to as the *epistemic fallacy* (Bhaskar 2011a: 13). According to Bhaskar (2016: 26), this fallacy "represents a profound anthropocentricity in modern and contemporary philosophical thought", and empirical realists commit it when they place the human being and its knowledge at the centre of everything. Conversely, attempts to reduce questions of knowledge to questions of being are also rejected. Critical realism opposes any notion that knowledge follows directly from being as if it was possible to read reality like an open book. Such a notion, entailing that the transitive dimension is repealed, is referred to as the *ontic fallacy* (Bhaskar 2011a: 157–158). For example, suggesting that the climate crisis can be reduced to what we know about it would be to commit the epistemic fallacy; suggesting that our knowledge of the climate crisis is a direct reflection of what this phenomenon is really like would be to commit the ontic fallacy. By operating with both an intransitive and a transitive dimension, critical realism avoids both fallacies.

THE THREE DOMAINS OF REALITY

Critical realism by no means enjoys a monopoly on being a realist philosophy of science perspective. However, a feature that makes critical realism significantly different from other forms of realism is its suggestion that reality contains three domains. The *empirical domain* consists of experiences and observations. The *actual domain* consists not only of experiences and observations but also events and phenomena. These events and phenomena may or may not be experienced/observed. These two domains correspond to the 'flat' worldview of

empirical realism, i.e., to a reality that, in addition to observable events and phenomena, contains experiences and observations. Bhaskar adds to this a third domain which he, to underscore its importance, denotes the *real domain*. In addition to events, phenomena, observations and experiences, this domain consists of structures and mechanisms that are not directly observable and which, under certain circumstances, sustain and cause events and phenomena in the actual domain. In Bhaskar's definition, then, the real domain is bigger than the other two domains because it incorporates both; the actual domain is bigger than the empirical domain because it incorporates it (Bhaskar 2008a: 46–47). Here, to keep things as clear and simple as possible, we will proceed on the assumption that the domains do not overlap. This gives us an *empirical* domain consisting of experiences and observations, an *actual* domain consisting of events and phenomena and, finally, what we will refer to as a *deep* domain consisting of structures and mechanisms that are not directly observable (Table 3.1). Seen in this way, the empirical domain concerns the human senses, whereas the other two domains contain the objects of science. Through observations (as well as in other ways), the sciences produce knowledge of objects in the actual and deep domains.

The three domains cannot be reduced to one another inasmuch as structures and mechanisms "are real and distinct from the patterns of events that they generate; just as events are real and different from the experiences in which they are apprehended" (Bhaskar 2008a: 46). As phenomena, events and observations on this view constitute no more than the tip of the iceberg, observability cannot be the criterion of existence. Focus is thus shifted from observable phenomena to underlying structures and mechanisms, which sustain or cause these manifest phenomena. Events and phenomena do not necessarily appear in a transparent way in the empirical domain. The same applies even more strongly to structures. In other words, our experiences and conceptions at the empirical domain do not necessarily reflect how things 'actually' and 'really' are. Appearances can be deceiving. For example, global heating may be perceived and framed by some as a phenomenon that entails more advantages than

Table 3.1 The three domains

Domain	*Content*
The empirical	Experiences and observations
The actual	Events and phenomena
The deep	Structures and mechanisms

Inspired by Bhaskar (2008a: 47) and Fleetwood (2002: 67).

disadvantages, for instance, by bringing about a milder climate in the cold North; yet this perception is very unlikely to reflect the actual and deep consequences of current and future global heating. The notion that reality and our – often superficial – understanding of it can be out of sync is also a key feature of the thinking of Marx and later forms of Marxism. Marx observed that "all science would be superfluous if the outward appearance and the essence of things directly coincided" (Marx 1966: 817). This observation, for instance, applies to fetishism.

Core concept: Fetishism

Fetishism refers to the process through which human beings and social relations come to be perceived of as natural, closed and immutable when, in reality, they are geo-historical, open and changeable. It can also entail the construal of inanimate things as being endowed with human and social qualities. In his critique of classical political economy, Marx (1977) developed an account of the fetishism of commodities together with fetishism as a broader notion of mystification and inversion in capitalist societies. Fetishism has become an all-important concept in Marxism and critical theory (Nielsen 2007b). Fetishism illustrates that appearances may be deceiving not only in a trivial sense but also in a systematic manner owing to overall social configurations and hegemonic discourses.

OPEN SYSTEMS AND CAUSALITY

Due to their structures, entities have specific causal powers and liabilities – that is, the capacity to work in particular ways and the susceptibility to be influenced by the powers of other entities in certain ways (Sayer 2010: 70–74). For example, water has causal powers enabling it to extinguish fire, dogs have causal powers enabling them to bark, bite and drool, human beings have causal powers enabling them to work and love. We are, in other words, dealing with a *differentiated reality*, i.e., a reality that contains entities with very different causal powers and liabilities. In the social world, it is often the case that "causal powers inhere not simply in single objects or individuals but in the social relations and structures which they form" (Sayer 2010: 71). Your causal power to

purchase a new computer, for instance, necessitates a market in which a computer is for sale, access to financial resources and the existence of a monetary system.

This brings us to the concept of mechanisms. According to Bhaskar, a mechanism "is just something that makes something else happen" (quoted in Buch-Hansen 2005: 57). Further explaining what a mechanism is, Jamie Morgan (2016: 19) writes that "[t]he multiplicity of powers or capacities of entities, and of a mix of different entities, can be conceptualised as generative mechanisms … that cause things to occur as events". That an entity possesses certain causal powers does not in itself mean that those powers are in fact activated, hereby triggering an event in the actual domain. The activation of powers depends entirely on the conditions that apply in a specific context – conditions pertaining to the mechanisms of other entities. There will always be a large number of active mechanisms in the deep domain, which can trigger, block or modify each other's effects. The relation between mechanisms and their effects is thus *contingent*, meaning that it is a possibility but never given beforehand. That you have the causal power to buy a new computer does not mean that you are in fact going to do it. Other mechanisms may prevent it – such as you having one or another *reason* for not buying it.

Core concept: Mechanism

In critical realist usage, a *mechanism* – sometimes referred to as a 'causal' or 'generative' mechanism – is a phenomenon that, by acting in a certain way, has the potential to contribute to causing phenomena and events to happen in the actual domain. Some critical realists use the term to denote both observable and unobservable factors. Douglas Porpora (2015: 58), for instance, mentions the following as examples of mechanisms: actors, actions, language, rules, relations and bombs. In other traditions, the concept is used in altogether different ways. For instance, it is often the case that mechanisms are understood as elements forming part of a (transitive) theory rather than as phenomena existing (intransitively) in the real world.

It follows from the above that the critical realist view of causality differs fundamentally from the Humean notion that causality concerns empirical

regularities between separate entities or events (see also Harré and Madden 1975). As mentioned in Chapter 2, this notion is premised on the ontological assumption that reality is a system in which event regularities occur on a major scale. Critical realists refer to such a system as a *closed system*. Whereas empiricism and positivism entail a horizontal model of causal explanation ('when event A, then event B'), critical realists advocate a vertical model in which the explanation of events and phenomena are to be found in underlying structures and mechanisms. On this multi-causal worldview, event regularities rarely occur spontaneously. Critical realists assume that reality, for the most part, consists of *open systems*, i.e., systems in which invariant empirical regularities never, or almost never, occur. On this view, the question of whether a specific mechanism has contributed to triggering a particular event is different from the question of how widespread or common that mechanism or event is (Porpora 2015: 48). The specific reasons you have for purchasing a computer (event) may be very different from the reasons your neighbour has for purchasing one. In other words, causality is not understood to concern generality or frequency (see also Fleetwood 2017).

The difference between the empiricist notion of causality (which, as described, is a key element of positivism) and the critical realist notion of causality is illustrated in Figure 3.1.

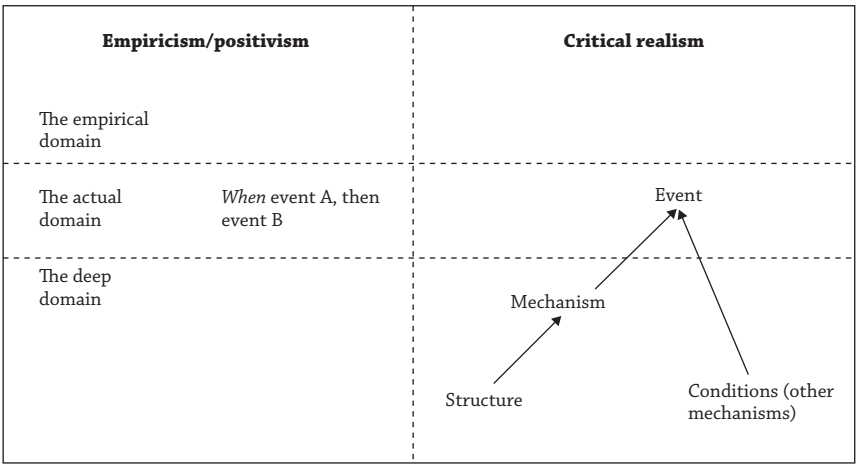

Figure 3.1 Notions of causality
Inspired by Sayer (2000: 14–15)

The case of gravity can be used to exemplify the critical realist understanding of causality. Gravity works on you and this book in this very moment. Still, it is probably safe to say that neither you nor the book is currently falling towards the surface of the Earth. The reason for this is that several other mechanisms – including perhaps those of a chair, a table, a floor – block and modify gravity. This does not mean, of course, that gravity has been eliminated. After all, there is a reason why the book is not taking off from your hands. And if we removed your hands, the book would – all things being equal – fall towards the ground. The actual event that the book is in your hands (if this is at all the case) is the result of the workings of several deep mechanisms acting in concert – mechanisms that exist regardless of whether this concrete event is empirically perceived. The point is that, in an open system such as the one you are currently located in, gravity and other causal powers only work as tendencies. If we want to precisely test gravity by measuring the speed with which objects of different weights fall to the ground, it would be necessary to construct a closed system in which other mechanisms (such as those possessed by hands, tables, chairs, etc.) do not disturb our measurements (Bhaskar 2002a: 7; 2002b: 73).

The critical realist view of causality applies as much to the social world as to the natural world. Take the example of work. At the deep domain, human beings are characterised by the potential to work, and most people are moreover inclined to do it. This is the case even though, in the actual domain, we do not always work – for instance, because we are sleeping or on vacation. At the same time, it is not necessarily the case that work is correctly observed in the empirical domain. A student sitting in Hyde Park, deeply absorbed by a difficult philosophy of science book, may appear to a random passer-by as if she is enjoying a day off reading a novel. There are also countless examples of mechanisms and structures that contribute to bring about or sustain – or have an impact on – actual events and phenomena in the social world. For example, the market mechanism works as a tendency in the deep domain, even though not everything in this world carries a price tag. The nuclear family structure affects our culture and relationships, even though many people live in other ways. The party structure affects our political life, even though far from all political activities involve political parties. Even though parallels can be drawn between nature and society, caution is necessary: critical realists recognise that analogies between the two can never be more than partial.

Critical realism in action: Identifying mechanisms

Utilising critical realism, Amber Fletcher set out to examine the effects of two major neoliberal agricultural policy changes on the lives and work patterns of farmwomen in a Canadian prairie province. Underscoring that a research process underpinned by critical realism does not proceed in a strictly linear fashion, Fletcher (2017) explains how her research process evolved. Having decided on a research question based on a review of existing research and initial theory, she proceeded to collect data. In addition to drawing on quantitative data on, for instance, changes in farm size and income from the Canadian Census of Agriculture, she conducted a series of interviews with agricultural leaders and farmwomen in the province. The interviews were recorded and transcribed. The subsequent data coding process revolved around the search for *tendencies* in the form of "rough trends or broken patterns in empirical data" (2017: 185). One empirical finding emerging from the interviews was that many women saw themselves more as being 'helpers' than as being the 'main farmer'. In many cases, they reported that they worked off the farm either to advance their own personal goals or for self-fulfilment. Another finding was a widespread feeling that family farms increasingly lose control over production conditions. The quantitative data, for instance, revealed an unprecedented expansion of the size of farms in the Canadian prairies. Finally, Fletcher conducted a data analysis. She used feminist political economy theory to situate the sense of a loss of control in the wider context of the neoliberal political economy. Retroduction – a mode of inference that involves moving between the empirical and deeper levels of reality (see Chapter 5) – was used to identify the causal mechanisms and conditions affecting the work patterns of the farmwomen. While Fletcher had expected neoliberal policy changes to be the most important mechanism affecting farmwomen's work, her analysis identified two other mechanisms as being more important. The first was a rigid *gender ideology* that framed the contributions of farmwomen as peripheral. The second was *corporatisation*, involving how multinational corporations take a larger share of agricultural profits. Putting farmers under financial pressure, corporatisation "is a key causal mechanism behind famers' lack of

control" and "their main motivation for growing the farm to stay economically viable" (Fletcher 2017: 190). Importantly, the interviewees had not directly identified these mechanisms; rather, Fletcher identified them based on her theoretically informed analysis of the data. Fletcher's conclusion is that whereas feminist political economy theory proved useful when examining political and economic structures, it does not sufficiently emphasise agential responses to these structures. Noting that the farmwomen exercised various forms of agency, she underscores the importance of taking into account both agency and structure in social scientific research.

STRATIFICATION AND EMERGENCE

The structures and mechanisms of the deep domain do not exist in complete chaos. Rather, reality is ordered in a certain way. This brings us to another key feature of critical realism, namely the notion that reality is *stratified*. That is, reality is hierarchically divided into a number of strata, and higher strata presuppose lower and less complex ones. Critical realists regard the stratification of reality as being in principle unbounded and claim that it is thus impossible to locate a truly ultimate stratum (Bhaskar 2008a: 162). Aside from it not having been clarified once and for all exactly what strata reality consists of, the relative ordering of some strata can also be debated (Moll 2004). In the interest of keeping things simple, here we will distinguish between four strata. In the top of the hierarchy, we find social reality. This stratum is premised on the biological stratum, which is premised on the chemical stratum, which is in turn premised on the physical stratum – the most basic level and thus placed at the bottom of the hierarchy. It makes sense to understand the hierarchical ordering of the different levels in this way inasmuch as "it is impossible to conceive of social or cultural mechanisms existing in the absence of biological ones, or of biological mechanisms existing in the absence of physico-chemical ones, but perfectly possible to conceive of the converse arrangements" (Creaven 2000: 29).

Importantly, critical realism is an anti-reductionist perspective. It rejects the notion that it is ever possible to reduce mechanisms of higher strata to the mechanisms of lower ones. The laws of physics do not cause social phenomena. Instead, critical realists suggest that the combination of mechanisms at a lower stratum results in the appearance of new entities at a higher stratum – entities

with causal powers and liabilities that cannot be reduced to, and that are qualitatively different from, their lower stratum foundations (Bhaskar 2008a: 102). These irreducible causal powers and liabilities are referred to as *emergent properties*. For example, even though human beings consist of genes, human behaviour has emergent properties and thus cannot be explained solely with reference to genetic composition. More generally, society and culture are irreducible to nature. To complicate matters, the four strata dealt with above can each be said to be stratified (Creaven 2000: 31–32). That is, emergent properties do not only arise out of mechanisms internal to lower strata. In social reality, for example, social structures have properties that agents do not have – and vice versa. We elaborate on this matter in Chapter 4.

FROM ONTOLOGY TO SCIENCE

The ontological assumptions accounted for in the previous sections have major epistemological consequences. It is to these consequences, or more precisely the critical realist perspective on science, that we now turn. In Chapter 2, we accounted for Bhaskar's transcendental reflections regarding the scientific experiment. With such experiments, scientists create artificially closed systems, i.e., systems in which event regularities occur because the causal powers of entities of interest are triggered in isolation from disturbances of other mechanisms. Still, this does not explain the purpose of scientific experiments. With the critical realist ontology, a possible answer emerges: it is relevant to create an artificially closed system because the resulting emergence of empirical event regularities enable scientists to study something *behind* these events – something not directly observable that causes these events. This 'something' is what was referred to above as structures and mechanisms. Critical realists regard the structures and mechanisms that generate events and phenomena to be the prime objects of the sciences.

That the deep domain is an open system with unobservable structures and mechanisms has direct research implications. First, it becomes *impossible to make precise predictions* of the future inasmuch as "events are not pre-determined before they happen but depend on contingent conditions" (Sayer 2000: 15). The point is not to deny that there are patterns in both nature and society. It is, for instance, relatively safe to say that many people will still go to work and do their shopping in supermarkets next week. Yet over time, most things – including the nature of work and prevailing consumption patterns – change fundamentally. Overall, societal trajectories can also be radically changed by individual events or a coincidence of circumstances that no one can predict. Think of 9/11

or Brexit or COVID-19. According to critical realists, then, scientists who are not dealing with artificially closed systems should by and large concentrate on explaining past and current events and phenomena.

Second, often it is not immediately possible to determine what mechanisms have caused a concrete phenomenon. Scientists can, however, in many cases, make use of experiments to activate specific mechanisms and study them in isolation from the influence of other factors (Bhaskar 2015: 9). Doing so can enable them to empirically test theories about mechanisms and to identify causal laws. In Bhaskar's understanding, causal laws are tendencies that operate at the deep domain – regardless of whether they are actualised or experienced (Bhaskar 2002a: 7; 2008a: 40). Such tendencies "are only necessarily manifest in empirical invariances under relatively special closed conditions" (Bhaskar 2011a: 68). On this view, then, structures and mechanisms – as opposed to patterns of events – form the basis of causal laws. For a statement of a causal law to be *true*, it needs to hold when the mechanism it concerns works without interferences – that is, when it is observed in a closed system. For the same statement to be *useful*, it needs to be able to contribute to the explanation of events occurring in open systems – i.e., systems in which the mechanism of interest works in concert with a multiplicity of other mechanisms (Collier 1994: 43). It is important to underscore that here we are referring solely to natural science. As discussed below, experiments cannot be conducted in the same controlled manner in the social sciences.

To recapitulate, according to critical realism, the essence of science comprises the movement from knowledge of manifest phenomena to knowledge of the structures and mechanisms that generate and sustain these phenomena. According to Bhaskar,

> one has in science a three-phase schema of development in which, in a continuing dialectic, science identifies a phenomenon (or range of phenomena), constructs explanations for it and empirically tests its explanations, leading to the identification of the generative mechanism at work, which now becomes the phenomenon to be explained, and so on. In this continuing process, as deeper levels or strata of reality are successively unfolded, science must construct and test its explanations with the cognitive resources and physical tools at its disposal, which in this process are themselves progressively transformed, modified and refined (Bhaskar 2015: 12; see also 2008a: 133–230, 240).

In this way, the sciences constantly gain knowledge of the structures and mechanisms that exist 'beneath' the phenomena, structures and mechanisms that it

already possesses knowledge of. The idea is not, however, that scientific knowledge accumulates in a continuous or linear manner. Quite the contrary: with its deep and stratified ontology, critical realism is able to take into consideration two fundamental aspects of the development of scientific knowledge: growth and change. That is, as the sciences gain knowledge of mechanisms at ever-deeper levels (growth of knowledge) this knowledge can be used to criticise and correct already produced knowledge of less fundamental mechanisms (change of knowledge) (Bhaskar 2009: 65; 2011a: 20). Unlike approaches which either assume that scientific knowledge grows without changing (empiricism/positivism) or which assume that knowledge changes without growing (radical social constructionism), critical realism can provide a *rational* explanation as to how and why scientific progress occurs (Bhaskar 2008a: 180–181; 2009: 63–64).

Critical realists both acknowledge their own fallibility and the fallibility of the sciences. The fact that new theories and explanations over time come to replace theories and explanations that were previously considered correct reflects that knowledge is historically conditioned and typically possible to improve upon. Here it can be noted, though, that some knowledge is more certain than other knowledge, meaning that not all knowledge claims are equally fallible (Danermark et al. 2019: 19–20). For example, with the mounting evidence now at our disposal, we can be certain beyond a reasonable doubt that a climate breakdown is in fact occurring and that much of it is driven by human-made emissions of CO_2 into the atmosphere. However, we cannot be as certain when it comes to the question of what an environmentally sustainable type of economic system entails. For instance, can the current growth-based economic system become sufficiently sustainable by means of massive investments in new green technologies and energy forms? Or is a sustainable economic system one that is not premised on consumerism and economic growth in the first place? Here opinions differ sharply among researchers. We (the authors) do not believe that the evidence so far suggests that it is possible to halt the climate crisis while the global economy keeps growing (see Chapter 6). Yet we also understand that we are dealing with an incredibly complex issue and that it is possible that what we believe to be the truth is, in fact, false. Fallibilism involves recognising that we can never know for certain to what extent our knowledge claims reflect reality.

Overall, critical realists are committed to ontological realism, epistemological relativism and judgmental rationality:

1. The commitment to *ontological realism* entails a belief in the existence of a reality that is independent of the knowledge of it.

2. The commitment to *epistemological relativism* involves recognising that knowledge is always socially produced and fallible. The world can only be known under particular conceptual frameworks that always have limitations (Bhaskar 2008a: 240–241) and moreover "neither truth-values nor criteria of rationality exist outside historical time" (Bhaskar 2011a: 23–24).
3. The commitment to *judgmental rationality* means that critical realists believe that those who study the world can have rational grounds for choosing among competing theories and statements about it (Porpora 2015: 73). In other words, the commitment to epistemological relativism does *not* lead to radical scepticism or relativism, entailing that all statements about reality are to be regarded as deeply problematic or equally true. It is maintained that not all theories or statements about the world are equally warranted.

The main concepts and ideas that have thus far been accounted for in this chapter are summarised in Table 3.2.

Table 3.2 Critical realism – key concepts and ideas

Our knowledge at a given point in time is called …	*This knowledge is …*	*Which means that …*
The transitive dimension	A social product	Knowledge production is a human activity that takes place in social contexts. New knowledge builds upon and transforms existing knowledge.
	Explanatory	The sciences should aspire to explain past and current phenomena. Typically, they are unable to make precise predictions of future events.
	Fallible	Knowledge is never unquestionable or definitive. It is always a possibility that new knowledge expands or replaces existing knowledge.

The things we study, which are part of a reality that exists independently of our knowledge of it is called…	*This reality is…*	*Which means that …*
The intransitive dimension	Deep	In addition to (actual) events and phenomena and (empirical) observations, reality contains a (deep) domain, which is not immediately observable. The main purpose of the sciences is to uncover the structures and mechanisms of this domain.
	Stratified	The structures and mechanisms of reality are hierarchically ordered into various strata. Higher strata (such as society) are premised on lower strata (such as the physical one) but are irreducible to them.
	Open	Because events result from contingent combinations of many underlying structures and mechanisms, event regularities almost never occur spontaneously.
	Differentiated	Reality contains entities with widely different causal powers and liabilities.

NATURAL AND SOCIAL SCIENCE

Even though Bhaskar developed his general philosophy of science perspective by taking natural scientific practices as his starting point, the concepts and arguments of critical realism are as relevant to the social sciences. Indeed, Bhaskar was at least as interested in social as in natural science, which is reflected in his second landmark work, *The Possibility of Naturalism*. As the title reveals, the overall theme of this book is the question of 'naturalism', i.e., the question of the extent to which there should be a unity of method in natural

and social science. Bhaskar considers this to be the most important question for the philosophy of *social* science, and he identifies two prevailing, yet problematic, ways of answering it.

On the one hand, proponents of a *naturalist* tradition have maintained that all the different branches of the sciences should study reality in fundamentally the same way, namely in accordance with the principles of positivism. This position entails that social science – like natural science – revolves around the identification of event regularities. On the other hand, advocates of an *anti-naturalist* tradition have insisted that the respective domains of natural and social science are so different that it is out of the question for them to operate with the same vision of science or to use similar methods. Bhaskar above all associates this position with the hermeneutic tradition, as well as with Habermas' critical theory (Bhaskar 2011a: 140–141, 188–189; 2011b: 142–143). The hermeneutic tradition is preoccupied with *interpretation* – originally interpretation of biblical texts; later with interpretation of a wide range of social phenomena and texts, from emails over advertisements to corporate annual reports (Prasad 2018: 39). Seen from the vantage point of hermeneutics, human beings are self-interpreting and capable of modifying and changing their views. Consequently, their activities "cannot be reduced to explanation by impersonal laws or quasi-structures" (Bevir and Blakely 2016: 40).

Critical realism in action: Interviews

How does a critical realist approach to interviewing differ from positivist and radical social constructionist approaches? Chris Smith and Tony Elger (2014) provide some answers to this question. A positivist approach typically involves standardised questions asked by a neutral interviewer. The purpose of such an endeavour is to extract information from the interviewees in order to develop law-like generalisations. In contrast, the interpretivist tradition (including, for instance, hermeneutics and social constructionism) celebrates mutual construction of meaning in the process of interviewing. As no objective reality exists on this view, the researcher cannot assess the veracity of the accounts provided by interviewees. The 'critical realist interviewer' takes a more active and investigative approach. Seen from the perspective of critical realism, not all

accounts are equally accurate representations of reality. Consequently, the interviewer may challenge statements made by the interviewee. The interviewee is asked about particular events and situations rather than about generalities; and s/he is encouraged to contrast his or her experiences of different situations and settings. Due to the importance ascribed to social structures, social theory often serves as the basis for interviews, meaning that interviews, to some extent, become theory-driven. This is, however, not to say that subjects are second to structures: when conducting interviews, critical realists seek to draw out human reflexivity and individual reasoning. Data derived from interviews are often used in combination with other forms of data.

Bhaskar's message is that, with the emergence of critical realism, a third and better way of relating to the question of naturalism becomes available. Once it is recognised that natural science does not actually aspire to identify causal laws that take the form of event regularities, it follows that seeking to identify such regularities in social reality *does not amount to studying social phenomena along the lines of natural science*. The positivist version of naturalism is, in other words, fundamentally mistaken and thus needs to be questioned. At the same time, it is equally necessary to question hermeneutic anti-naturalism inasmuch as its consistent rejection of any possible similarity between natural and social science is based on a tacit acceptance of the positivist understanding of natural science. By way of immanent critique, Bhaskar develops an alternative that takes the form of a nuanced and anti-positivist *critical naturalism* that is consistent with the general critical realist understanding of science:

> Such a naturalism holds that it is possible to give an account of science under which the proper and more or less specific methods of both the natural and social sciences can fall. But it does not deny that there are significant differences in these methods, grounded in real differences in their subject-matters and in the relationships in which their sciences stand to them. (Bhaskar 2015: 3)

Core concept: Immanent critique

Immanent critique is a form of critique that includes rather than excludes that which is being criticised: instead of establishing an external standpoint as the basis of critique, immanent critique starts from inconsistencies in and inadequacies of the idea or system of beliefs that is being criticised. Thus, instead of starting out from your own beliefs, you start out from what the person you wish to engage with believes. If you believe that this person is wrong or that his/her views need refining, then your task is to show that in terms of his/her values and beliefs (Bhaskar in Buch-Hansen 2005: 56). For example, if a person who believes in the importance of avoiding a climate breakdown makes the statement that 'everyone should eat more meat', an immanent critique would involve pointing out that if everyone ate more meat it would have dire consequences for the climate (see also Bhaskar 2016: 3). An immanent critique can create a space for partial agreement and open up avenues for fruitful engagement with those whose beliefs are being criticised.

On the one hand, Bhaskar's alternative can be said to be *naturalist* in that it considers natural and social science to operate in accordance with the same general principle. That is, both move from manifest phenomena to the configurations of underlying structures and mechanisms that have caused them. Bhaskar underscores that a crucial precondition for scientific knowledge to be useful is that it concerns relatively enduring subject fields. After all, scientific knowledge would be of little value if its intransitive objects changed fundamentally every other minute. He suggests that it is not only in nature that structures are typically relatively enduring; the same applies to social structures. On this view, social structures are "relations of various kinds: between people and each other, their products, their activities, nature and themselves" (Bhaskar 2011a: 81). Such relations are the only things that endure in social life (Bhaskar 2015: 41). In the social world, we all occupy particular positions that relate to other positions. For instance, you are a tenant by virtue of your relation to a property owner, a buyer by virtue of your relation to a seller, a mother by virtue of your relation to a child. Social positions and the relations between them generally exist before we occupy them. The ensuing continuity is what makes social structures suitable as key objects of social scientific inquiry.

On the other hand, Bhaskar's version of naturalism is *critical* in that it acknowledges that social phenomena are different from natural ones, meaning that natural and social science are inevitably different in important respects. Specifically, Bhaskar argues that the differences between natural and social science necessitate a naturalism with both epistemological, relational and ontological limitations.

Epistemologically speaking, the most significant difference between natural and social science is that the latter "must confront the problem of the direct scientific study of phenomena that only ever manifest themselves in open systems" (Bhaskar 2015: 21). Whereas it is in some cases possible to locally create an artificial closure of nature by means of scientific experiments, this is never possible in the social sphere. The difference is rooted in the fact that the natural sciences deal with the lower strata of reality (e.g., the physical stratum), whereas the social sciences deal with the highest – and thus most inclusive – stratum/strata (social reality). This is relevant in the present context inasmuch as "the higher the strata, the more mechanisms and possible combinations of mechanisms and emergence" (Danermark et al. 2002: 67). In the social sciences, attempts to bring about closure inevitably result in the appearance of new openings. That is, new spaces for reflection are inevitably opened up in the very process of experimenting with human beings and social dynamics, undermining the possibility of real closure. As nothing similar to the natural experiment exists in the social sciences, the social scientist is never able to definitively establish whether a theory is valid or not (Bhaskar 2015: 45). It is, however, worth noting that not all social systems are equally open. For instance, Danermark et al. point out that within the higher strata of reality, there are many examples of what they call 'pseudo-closed' systems. These are

> expressions of higher strata's causal powers to intervene in other strata with the purpose of achieving some kind of closure – that is to say regularity – thus achieving predictability and control. Any type of social organization, such as the judicial system, the organization of working life, family, the educational system or the health care system, are examples of such pseudo-closed systems (Danermark et al. 2002: 68)

Such systems are the result of efforts to make the social sphere more controllable and predictable. Still, this type of predictability is far from comparable to the type that natural scientists are sometimes able to achieve by creating artificially closed systems. In this context, critical realists also take the position that

the mathematical models of mainstream economists have little in common with the laboratory experiments conducted by natural scientists. Such models constitute purely theoretical constructs that are devoid of real people. Taking real people out of society does not make for a closed social system; instead, it neutralises one of the cornerstones that make social systems social, resulting in a deeply flawed image of reality.

Relationally speaking, the decisive difference between natural and social science is that the latter is part of its own field of study, resulting in complex interactions between research and its subject-matter. On the one hand, the social sphere impacts the production of social scientific knowledge. To give but one example, some years back, the Danish parliament asked social scientists to conduct an investigation into the state of power and democracy in Denmark. The resulting analysis is a good illustration of a social scientific analysis that is commissioned and paid for by (some of) the very individuals whose power the analysis concerns. In this respect, social science is clearly different from natural science. As funny as it is to imagine, biologists are probably rarely contacted by a bunch of worried earthworms who commission an in-depth study of their current location in the food chain. On the other hand, social scientific studies in some cases *impact* the phenomena they deal with, as when economic forecasts come to have an impact on social and economic policies because policy-makers follow the advice of economists.

These mutual impacts between the social sciences and the surrounding society do not mean that the dividing line between the transitive and the intransitive dimensions dissolves. One reason for this is that a considerable time gap exists between the moments when a social scientific analysis is conducted, or social scientific theories and concepts are constructed, and their *potential* subsequent impact on society. To put it differently, the social entities studied by the social sciences *always* exist intransitively at the moment they are studied, regardless of whether those studies later result in a transformation of the entities (see also Lawson 1997: 200). German sociologist Weber's analysis of the spirit of capitalism and Marx's analysis and critique of the accumulation of capital both came to have an enormous impact on societal developments. Yet while they studied it, capitalism was not affected in the least by their work. In more recent times, the research on economic inequality conducted by Thomas Piketty and his colleagues – culminating

with the publication of the bestseller *Capital in the Twenty-First Century* (Piketty 2014) – attracted so much attention that it is likely to have some impact on the phenomenon it concerns. But again, economic inequality existed independently of Piketty and his colleagues while they built their historical database and reached their conclusions. It is worth adding that very few social scientists succeed in producing research that ends up having a major societal impact: most social research is either silently ignored or quickly forgotten.

Another type of relational difference concerns critique. According to Bhaskar, the social sciences should be critical of the entities they study – and on this basis, actively participate in progressive transformations of society (see Chapter 5). It makes no sense to conduct critical natural science in the same way as critical social science. You can meaningfully criticise, say, capitalist societies for being exploitative or a community for its sexist or racist culture. But you cannot meaningfully criticise the exploitation of worker ants or the climate for heating up.

Ontologically speaking, there are differences between social structures and the structures of nature, the most important one being that, whereas social structures are activity-dependent, structures in nature are not. That is, social structures cannot exist without being mediated through the activities of actors (Bhaskar 2002a: 17; 2010a: 95). This matter will be explored further in the next chapter.

Summary

- Critical realists make a sharp distinction between being and knowledge: the (intransitive) phenomena studied by the sciences are distinguished from current (transitive) knowledge of these phenomena.
- Reality is held to contain a *deep domain* with multiple structures and mechanisms that in some cases cause events and phenomena to occur in the *actual domain*, regardless of whether these are observed in the *empirical domain*.
- A *closed system* is one in which invariant event regularities occur. Critical realists suggest that reality mainly consists of *open systems* in which invariant regularities do not occur. While there are patterns in the (social) world, they vary from one place to the next and evolve over time.
- Reality is understood to be hierarchically ordered into various *strata*, which cannot be reduced to one another. The combination of mechanisms at a more basic stratum brings about mechanisms at a higher stratum which have emergent properties that none of the mechanisms at the lower stratum have.
- Critical realists regard the structures and mechanisms that generate events and phenomena to be the prime objects of the sciences.
- Both the natural and the social sciences should aim to identify such underlying structures and mechanisms. The critical realist form of naturalism is, however, both *critical* and *anti-positivist* in that it recognises that there are substantial ontological, epistemological and relational differences between social and natural science.

4 Basics: Transcending Dualisms

For a long time, the social sciences have been pervaded by dualisms. The contradiction between naturalism and anti-naturalism was thus by no means the only dualism confronted by Bhaskar in *The Possibility of Naturalism*. Looking back on the situation in the social sciences in the 1970s, Bhaskar (2002b: 125–126) writes as follows:

> It was riven by dualism and dichotomy. You had the contrast between positivism and hermeneutics, between naturalism and anti-naturalism, between structure and agency, between the individual and the collectivity [...]. You had the contrast between mind and body, reason and cause, between fact and value, between theory and practice.

Overall, it is possible to relate to dualisms in three ways. *Reductionism* consists in giving primacy to one pole of a dualism. *Deconstructionism* consists in smoothing or completely erasing the binary scheme of the dualism – either by ascribing a new meaning to well-established concepts in a dualism or by replacing them with completely new concepts. *Critical realism* provides a complex and holistic approach that maintains the two poles of dualisms as non-reducible, while at the same time focusing on relationships, interactions and dynamics between them. Overall, critical realism constitutes an ambitious attempt to transcend all the dichotomies/dualisms mentioned in the above quote by offering a nuanced both/and perspective as opposed to an uncompromising either/or perspective. In the present chapter, we focus specifically on the dualisms related to agency, structure and culture.

Learning objectives

- Understand reductionist and deconstructionist ways of dealing with the agency-structure dualism
- Gain insights into how the relationship between agency and social structure is conceptualised in critical realism
- Grasp how culture can be understood from the vantage point of critical realism and how it relates to the agency-structure conceptualisation

REDUCTIONISM AND DECONSTRUCTIONISM

The question of how to conceptualise the link between human agency and social structures is one of the core issues in social theory (Archer 1995: 65). Here 'agency' refers to the conduct of agents and "implies a sense of free will, choice or autonomy" (Hay 2002: 94). Cutting to the bone, the agency-structure question revolves around human freedom or the lack of it. Are we, as human beings, fully able to decide our own life trajectories or is our destiny sealed beforehand by social factors beyond our control? Or is the truth perhaps to be found somewhere in-between these extreme positions? Such questions are not merely interesting because each of us, as agents in the social world, are inevitably concerned with the degree and nature of the freedom we enjoy. They are also important because it is impossible to explain or theorise social phenomena without implicitly or explicitly taking a stand on the relative importance of agency and structure. For instance, we cannot reflect on the causes of the climate crisis without asking whether they are to be found in the choices of individual persons, in the structural context in which these persons are situated or in some combination of the two factors. Whenever we conduct a social scientific analysis or take a position on a political issue, we are immediately confronted with agency-structure-related questions. Attempts to evade or push aside the matter are thus futile.

Core concept: Social structure

While the notion of social structure is widely used in the social sciences, there is little agreement as to what it means. Porpora (2015) identifies four overall conceptions of social structure. First, a critical realist conception according to which the term structure refers to *(material) relations*

connecting social positions as well as such positions and social objects. Second, a conception associated with the covering-law model, according to which structures are *lawlike regularities governing the behaviour of social facts*. Third, a conception found in mainstream economics and rational choice scholarship that takes social structure to mean *stable patterns or regularities of behaviour*. And finally, a conception associated with Giddens according to which social structures are *rules and resources structuring behaviour* (Porpora 2015: 98–114).

As mentioned above, three general approaches to dualisms can be delineated: reductionism, deconstructionism and critical realism. Reductionism manifests itself in structuralism and individualism. On the one hand, *structuralism* privileges structures at the cost of agency, highlighting how structures either considerably limit or completely determine the behaviour of actors. Such a position is, for instance, often associated with Émile Durkheim and Louis Althusser (1918–1990). On the other hand, *individualism* so to speak, turns structuralism on its head. Individualism can be defined as a position that privileges agency over structure, considering structures as the intentional product of the activities of actors. Bhaskar, rightly or wrongly, associates such a position with Weber, but it is also a position one encounters in contemporary social science, not least in mainstream economics and rational choice scholarship. It is thus a common feature of the two reductionist approaches that they either neglect one side of the agency-structure dualism or reduce it to a passive by-product of the other side. Evidently, this has major ramifications for the ways in which social phenomena are understood and explained. For instance, an individualist will explain a phenomenon such as the rise of neoliberalism with reference to choices made by individuals. Conversely, a structuralist will regard individuals as victims of the circumstances of neoliberalism.

Core concept: Homo economicus

Homo economicus, or 'economic man', is the characterisation of human beings found in mainstream economics. This theoretical entity was constructed in the late nineteenth century by neoclassical economists against the background of the 'bourgeois subject' of the classical economists. Both the bourgeois subject and homo economicus strive for

> happiness and are self-reliant, autonomous and responsible. However, in contemporary mainstream economics, homo economicus is mathematically formalised as a rational entity that maximises utility in market exchanges, for instance, by selling labour power and buying commodities. Homo economicus strives to make the most of his (sic) money, derives utility only through markets and is situated in surroundings populated solely by other utility-maximising entities. In recent decades, other social scientists have increasingly made use of homo economicus to study not only economic phenomena but also other social affairs, including, for instance, crime, education, politics and families. Such endeavours typically relate to rational choice theory but sometimes also go by other names such as public choice theory. To Michel Foucault (2008), the use and extension of homo economicus is a defining feature of neoliberalism.

Especially since the 1970s, and not least in the context of the critique of structural Marxism, considerable efforts have been made to transcend the agency-structure dualism. Various models that ascribe importance to both agency and structure have thus emerged. Most of these models are premised on the deconstructionist approach to dualisms. The strategy has been to argue that traditional concepts like 'agent' and 'structure' are inadequate, imprecise or downright misleading. The concepts are thus either redefined or new concepts, and frameworks are introduced with a view to transcend the old dualism. This is the strategy opted for by Ernesto Laclau (1935–2014) and Chantal Mouffe and other postmodernists (in this book we use the term 'postmodernism' broadly to also include poststructuralist perspectives). We return to this issue in Chapter 7, in which we also clarify the meaning of deconstructionism in the context of postmodernism.

Anthony Giddens' so-called 'structuration theory' constitutes a less radical form of deconstructionism. It has been described as "one of the most influential perspectives in contemporary social thought" (Haugaard 2002: 146) and remains one of the best-known attempts to overcome the agency-structure dualism. Giddens notes that agents and structures have traditionally been considered antinomies and argues that this is misleading as the two presuppose each other in a dialectical relationship. He suggests that the recognition of this "necessitates a reworking both of a series of concepts linked to each of these terms, and of the terms themselves" (1979: 53). Consequently, he attempts to move beyond the agency-structure dualism by conceptualising agency and

structure as the complementary terms of a duality. The attempt of structuration theory to transcend the agency-structure dualism to no small extent hinges on a redefinition of the concept of structure, which turns structure into something that is not external to agents. In Giddens' terminology, structures refer to "rules and resources" that only exist "virtually" as memory traces in the instantiation in social practice (Giddens 1979: 64–66; 1984: 25). As pointed out by Colin Wight (2006: 154), this notion of structure neglects or hides "the materiality, or we might even say the very reality, of social relations as causal factors in the social world independent of agential understanding". In other words, important aspects conventionally covered by the concept of 'structure' are omitted. For these and other reasons, it is a widespread view that Giddens, in spite of his theoretical innovations, never succeeded in the task he set for himself – namely to transcend the agency-structure dualism in a convincing manner. Still, Giddens' work brought attention to the agency-structure dualism and fuelled a debate on how to overcome it, which is a major achievement in itself.

Pierre Bourdieu (1930–2002) is another eminent scholar who tackles the agency-structure problem in constructive ways. Many of his central concepts such as 'field', 'habitus' and 'capital' are closely connected with his attempts to transcend the agency-structure dualism (e.g., Bourdieu 2004). More generally, Bourdieu is committed to overcoming dualisms. Or, in his own words, to break "with a whole series of socially powerful oppositions – individual/society, individual/collective, conscious/unconscious, interested/disinterested, objective/subjective, and so forth – which seem to constitute ordinary thought" (Bourdieu 1998: viii). While some critical realists question key Bourdieuan concepts (e.g., Archer 2010), others argue that elements from the two strands of thinking can be fruitfully combined (Elder-Vass 2010; Porpora 2015: 100–101).

CRITICAL REALISM AND THE AGENCY-STRUCTURE DUALISM

Critical realism upholds the traditional dichotomy between agents and structures. People and society are considered to be "radically different kinds of thing" (Bhaskar 2015: 33) and instead of trying to make the dualism go away by inventing new concepts or giving old concepts new meanings, the *interplay* between agents and structures *over time* are brought into focus. Indeed, the critical realist perspective is consistent with Marx's famous observation that "[m]en make their own history, but they do not make it just as they please; they

do not make it under circumstances chosen by themselves, but under circumstances directly encountered, given and transmitted from the past" (Marx 1934: 10). Bhaskar's approach to the agency-structure relationship is called the *Transformational Model of Social Activity*. He developed it in the 1970s in parallel with Giddens' development of structuration theory. Subsequently, the model was clarified and developed further by Bhaskar as well as by other critical realists. Particularly important in this context are the contributions by Archer. Her so-called *Morphogenetic Approach* (Archer 1995) constitutes the most thoroughly developed critical realist model of the agency-structure relation. While largely consistent with Bhaskar's original model, it corrects and develops it in some important respects. Various other agency-structure models that resonate with critical realism have also been developed (e.g., Jessop 2005; Wight 2006; Elder-Vass 2010).

The critical realist agency-structure approach builds on the notions of stratification and emergence. As mentioned in Chapter 3, agents and social structures are held to belong to different strata and to possess emergent properties, meaning that they are causally irreducible to – and fundamentally different from – one another. While structures emerge from the interactions of agents, then, they possess properties that no agent possesses. Conversely, agents acquire properties or abilities by virtue of social structures – abilities that no social structure can be said to possess (Archer 1995, 2000). This insight makes it possible to study the interplay between agency and structure over time. Archer proposes that analytically the interplay can be studied in terms of endless cycles of structural conditions, social interaction and structural development (Archer 1995: 76). This proposal is illustrated in Figure 4.1, in which the three lines are to be thought of as continuous, meaning that there is never a point in time when there are structures but no agents and vice versa.

Structural conditions

At any given point in time, agents encounter already existing structures, which confront them as an objective phenomenon – i.e., as a phenomenon that affects them independently of how they may interpret it. For example, even if an individual is unaware of neoliberal capitalism, his or her life is still almost inevitably affected by it. Although social structures confront individuals as an objective phenomenon that they have not themselves created, social structures are nonetheless products of – and only exist through – human activities. In the previous chapter, it was noted that critical realists view social structures in relational terms (e.g., Bhaskar 2011a: 81). Yet they do not agree on a specific

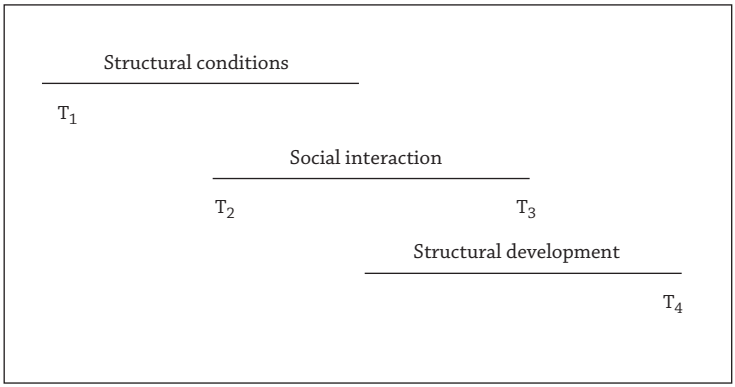

Figure 4.1 The agency-structure interplay
Based on Archer (1995: 76)

conceptualisation. Here we follow Porpora's aforementioned suggestion that social structures can be understood as material relations connecting social positions as well as such positions and social objects (2015: 98, 173). Three things can be noted about this definition. First, it speaks of *material* relations, which is to say that structures are objective in the sense described above. Second, it highlights that relations exist among *social positions*. Such positions are inhabited by agents (Bhaskar 2015: 40–41). For example, 'employer' and 'employee' are social positions between which objective relations exist: regardless of how the person occupying the position as employee views the situation, s/he will in various ways be affected by the nature of the relation to the employer. Third, social structures are not solely made up of relations between social positions; they are also made up of relations between those positions and *social objects* such as economic resources and rules. Specific interests, resources, limitations and powers are associated with social positions, meaning that an agent occupying a social position will be able and incentivised to act in specific ways (Porpora 1989: 200). For instance, the employee has an incentive to go to work by virtue of the social position he or she occupies. On this view, the ability of a very influential person – such as a president – to take decisions that make certain things happen does not mainly reside within that person (as if s/he somehow possessed superpowers). It mainly derives from the social position s/he occupies – the presidency – and the ensuing resources. Social positions facilitate, motivate and constrain social activities. They are *facilitating* in that they are the necessary conditions for the social actions of agents. They are

motivating in that actors come to have particular positional interests (for instance, an actor occupying a position of power will tend to want to preserve that power). Finally, they are *constraining*. Social positions never force or determine the actions of agents, but they exert an objective influence by shaping situations and conditioning action patterns (Archer 1995: 196).

To render the critical realist conceptualisation of the agency-structure relationship less abstract, we will unfold a fictional everyday life example. An undergraduate student, Laura, has just moved into a dorm room. The monthly rent is high, the reason being that the university is located in an area in which there are few rooms relative to the number of room-seekers. As the law moreover makes it easy for property owners to evict tenants in cases of dispute, the power relationship between property owners and tenants works to the advantage of the property owners, enabling them to set rents at a high level. This tenant-property owner relationship confronts Laura and other students as an objective social structure not of their own making. Because Laura takes up the position as a tenant, this social structure both facilitates, motivates and constrains her actions. It facilitates that she can live in the dorm and make use of its facilities; it motivates her to pay her rent; and it constrains her as the monthly rent makes up most of her income. Yet the structure does not determine Laura's actions. Knowing that there are likely to be serious consequences, she could choose to abstain from paying the rent.

Social interaction

Agents never act in a structural vacuum. Between T_2 and T_3 (see Figure 4.1), they can shape existing social structures. This is possible because agents possess emergent properties, as a result of which their behaviour is irreducible to their structural context and position. Human beings can, for instance, have the capacity for being self-reflexive, emotional, creative and loving (Smith 2015: 42–53), whereas social structures and positions can have none of these capacities. There are, however, disagreements among critical realists as to what aspects of agency are most prominent. For instance, Archer ascribes great importance to reflexivity exercised through 'internal conversations' of agents (Archer 2000) and has been criticised for not sufficiently recognising the importance of the unconscious and habits (Elder-Vass 2010; Sayer 2009a). Conversely, Archer criticises what she calls the "current enthusiasm for habitual action" among critical realists (2010: 274).

Sayer (2000: 97) suggests that critical realism is consistent with a "moderate essentialism". This means that any individual is held to have certain character

traits that form his or her personality. Importantly, these character traits are not fixed and always express themselves as potentialities. Moreover, they evolve over time, subject, for instance, to interactions with other individuals. In the words of Archer, "actors themselves change in the very process of actively pursuing changes in the social order" (2010: 274). Not only individual human beings have emergent properties. The activities of groups of human beings can also display emergent properties; properties that cannot be reduced to the activities of single individuals (Wight 2006: 113). This perspective on actors differs profoundly from perspectives based on strong essentialism, mainstream economics and rational choice theory being cases in point. Whereas the preferences and choices of homo economicus can change, no change in character traits is possible: the only way for homo economicus to strive for happiness is by means of earning and spending money.

Returning to the example of the dorm, Laura shares her room with another student, Lisa. As students and dorm residents, Lisa and Laura occupy some very similar social positions. Yet their ways of interacting with others tend to differ. Being an outgoing and sociable person, Laura enjoys cooking meals in the kitchen and having the company of other residents while eating. Lisa is more introverted and can, at times, find it tiring to be around other people. The activities of Laura and Lisa can, however, neither be reduced to their structural setting nor to their respective character traits. Their interactions with one another also need to be taken into account. When they moved into the dorm, Lisa was a vegan while Laura was not. Based on her interactions with Lisa, however, Laura – who is deeply concerned about the climate crisis – decides to give veganism a try. Together they start up a vegan cooking club and invite other dorm residents to join them. Establishing such a club does not come naturally to Lisa. However, through her interactions with Laura, socialising around meals has come to seem more appealing to her. The initiation of the cooking club, then, is an activity displaying emergent properties arising out of interactions between Laura and Lisa.

Critical realism in action: Internal conversations

Noting the widely recognised gap between what people *know* about the nature of climate change and what they *do* about it, Eleri Evans' (2014) exploratory study focuses on a communities arts programme in Wales. The programme – a community wind farm project in Upper Swansea Valley – sought to engage people in climate change on a deeper, personal level and prompted them to act in various ways. In her study, Evans

utilises Archer's critical realist notion of the 'internal conversation'. Being the process through which people 'self-talk' to decide on what to believe and do, the internal conversation is regarded as a mechanism at the deep domain that brings about people's concerns and actions. Evans traces the internal conversation of selected participants in the programme and the actions it triggered, ranging from smaller actions such as writing a poem to bigger actions such as taking part in a 'Green Pilgrimage'.

Structural development

Social interaction results in a development of the structural context in which the activities of agents have taken place. Because this context existed prior to the social interaction, agents do not *create* social structures. Rather they *reproduce* or *transform* pre-existing social structures through their activities (Bhaskar 2010a: 91–100). This marks the beginning of a new cycle in which T_4 is the new T_1 (see Figure 4.1). Importantly, specific structural developments may not be intended by the agents who caused them through their social interactions between T_2 and T_3. Agents and structures never stand in a one-to-one relationship with one another. Rather than confronting merely one social structure, agents always face an extensive and often unrecognised network of interrelated (political, economic, climatic, etc.) structures. Social activities are thus likely to contribute to the reproduction or transformation of structures in ways that were not intended by any individual agent. In other words, the intentional activities of agents often result in unintended structural developments.

Take the tenant-property owner power relationship confronting Laura and the other students living in the dorm. As is the case with structures more generally, this relationship is not set in stone. If demand for rooms decline because the ratio of rooms relative to room-seekers changes, or if the laws regulating tenant-property owner relationship change, it can weaken the power of property owners and prompt them to reduce rents. While Laura and the other dorm residents cannot transform the structure by themselves, they could join forces with others and work for it to happen, for instance, by getting involved in a social movement or joining a political party. The structure is related to a wider set of social structures that Laura is not necessarily fully aware of. Like the other tenants, she pays the monthly rent with a view to have a place to live while studying. Yet through this activity, the dorm residents contribute (even if in a small way) to reproduce the wider structures of the monetary system and

capitalism. Their rents enable the property owner to make profits. It is far from given that the dorm residents know what happens with those profits. Maybe they are invested in the construction of new dorms. Maybe they are channelled into some tax haven. Maybe they are invested in index funds that contain shipping, airline and oil company stocks. If the latter is the case, it results in the situation that Laura and other dorm inhabitants seek to do something good for the climate by switching to a vegan diet while they, at the same time, unintentionally contribute to reproduce environmentally unsustainable economic structures. Although these structures are difficult to change, they are by no means untouchable. Like all structures, they can be transformed if enough people work for it to happen; for instance, by changing the way they live and interact with each other and nature.

AGENCY, STRUCTURE AND CULTURE

In addition to the question of how agency and structure are linked is the question of how *culture* fits into the picture. While various scholars have contributed to the development of a perspective on culture that complements the critical realist agency-structure approach, Archer has written the most comprehensive and influential works on this matter. She regards culture, structure and agency as distinct and indeed irreducible to one another. The reason is that culture, like agency and structure, has emergent properties (Archer 2010: 274). On this view, 'culture' as a whole refers to all items that have a meaningful content, i.e., that meant something to whoever produced it (Porpora 2015: 161). Included would be material items such as books, documents, films and music. Of particular interest is the subset of cultural items that make a claim to truth or falsity, and which can therefore contradict or be consistent with one another. Archer refers to such items – which, for instance, include propositions, political ideologies and theories – as the *cultural system*. She insists that the cultural system cannot be reduced to what is at any given point stored in the minds of human beings. Rather it "has an objective existence and autonomous relations amongst its components (doctrines, theories, beliefs, and individual propositions). These are independent of anyone's claim to know, to believe, to assert or to assent to them, because this is knowledge independent of a knowing subject – like any unread book" (Archer 2005: 25; see also 1996: 107).

That the cultural system is understood to exist independently of how agents perceive the world serves to underscore that we are dealing here with a distinctly *realist* perspective on culture. We can also note that Archer speaks of

'autonomous relations', indicating a parallel to the relational notion of social structure. Indeed, whereas a social structure can be understood in terms of relations that connect social positions as well as social positions and social objects, *cultural structure* concerns relations between ideas (Porpora 2015: 173). Ideas can be logically conflicting, as when, for example, neoliberal ideology presents social affairs in a manner that is incompatible with how they are presented in socialist ideology. Or they can be logically complementary, as with compatible views on what the most serious consequences of the climate breakdown are. The relations between ideas are objective in the sense that they exist even if they are not noticed by anyone. Even if you are not yet aware that neoliberalism and socialism logically contradict one another, this does not mean that they are not contradictive; it just means that you have yet to realise it. And even if you never come to realise it, they will still be contradictive.

Critical realism in action: Human flourishing

Morphogenesis and Human Flourishing (2017) is the last volume of a series of books in which Archer and changing constellations of critical realist collaborators explore morphogenetic (change-driving) processes on a global scale from the 1980s onwards. Archer and her collaborators are interested in, for instance, whether late modernity is giving way to a 'morphogenetic society', i.e., a social formation in which change-driving social mechanisms increasingly predominate over stability-enhancing mechanisms. These processes are studied with attention being given to structure, agency and culture. For instance, the intensification of structure-culture synergies is argued to result in ever-greater varieties of ideas, techniques, skills, products and lifestyles. The chapters of the book revolve around issues related to the possibility of human flourishing in a 'morphogenetic society'.

Paralleling her agency-structure model, Archer suggests that the reproduction or transformation of culture can analytically be regarded to happen in cycles involving *cultural conditioning*, *socio-cultural interaction* and *cultural elaboration*. Cultural conditioning and socio-cultural interaction are said to belong to two different ontological strata, possessing emergent properties. At any given moment (T_1) agents confront a cultural system that is not of their own making but the product of past interactions. As an emergent entity, this cultural system

has causal powers of its own, specifically powers to constrain and enable "the ideational projects of people – the beliefs they seek to uphold, the theories they wish to vindicate, the propositions they want to be able to deem true" (Archer 2005: 25). The cultural system constitutes a pre-existing ideational environment that can either be 'friendly' or 'hostile' to the ideational projects of people, by exposing their advocates to either compatibilities or logical contradictions. The cultural system, however, only has such causal powers provided these are activated at another ontological level, namely that of socio-cultural interactions (T_2–T_3). That is, for an idea to have any societal importance, agents need to hold it and promote it in their interactions. Whether a particular idea becomes socially influential in a given place and time depends on *who* is promoting it, how well they do it and the opposition they are met with (Archer and Elder-Vass 2012: 95). Socio-cultural interactions result in the elaboration of the cultural system, by either reproducing or modifying cultural structures (T_4, which constitutes the new T_1) (Archer 1995: 169).

For example, some scholars and activists promote the idea that, in order to genuinely deal with the climate crisis, it will be necessary for the rich countries to move toward an economic system that can function without economic growth. This idea, which is often advocated under labels such as 'postgrowth' or 'degrowth' (e.g., Jackson 2009; Kallis 2018), is part of the cultural system. It has an objective existence, and it can have causal powers to the extent it is embraced and promoted by agents at the level of socio-cultural interactions. However, the idea is contradicted by another idea, namely the notion that the economic system can only deliver societal welfare if it grows exponentially. This idea is held and promoted by a wide range of agents at the level of socio-cultural interactions, including mainstream economists, corporate actors, neoliberals and the vast majority of policy-makers. Advocates of degrowth thus find themselves in an ideational environment that is overwhelmingly hostile to their ideational project. This state of affairs does much to explain why degrowth is a marginalised idea which, when compared to 'growth-friendly ideas', shapes societal developments to a much smaller extent (Buch-Hansen 2018). In recent years, however, an increasing number of people have come to embrace and promote degrowth. The socio-cultural activities of these people *may* result in the transformation of cultural structures, in turn paving the way for an ideational environment that is somewhat less hostile to the ideational project of degrowth.

The point is not that one should focus on either agency-structure or agency-culture interplays when studying the social world. To the contrary, seen from a critical realist point of view, it should be acknowledged that *agency, structure and culture are implicated in the generation of any social outcome* (Archer 2010: 274). At any point in time, the activities of agents are conditioned both by

social structures and a cultural system. Social structure and culture thus always intersect at the level of social/socio-cultural interactions. Most of the time "there is structural penetration of the cultural realm, and cultural penetration of the structural realm" (Archer 1995: 305). For instance, structural conditions such as the distribution of economic resources can have a major impact on what ideas come to prevail at the level of socio-structural interactions. Conversely, the prevalence of specific ideas, say a political ideology such as neoliberalism, may contribute to prevent open conflict from erupting between agents occupying social positions associated with opposing interests (e.g., class positions). In sum, by recognising that agency, structure and culture have emergent properties (rather than being reducible to one another), it becomes possible to study their interplay over time. When seeking to explain a social outcome of interest, it is typically relevant to do so with reference to agency, structure *and* culture and to consider the ways in which the three are interwoven.

Summary

- A reductionist approach to the agency-structure dualism involves privileging structures at the cost of agency (structuralism) or agency at the cost of structure (individualism). A deconstructionist approach consists in 'defining away' the dualism by inventing new concepts or giving new meanings to the concepts of agency and/or structure.
- In critical realism, structures are understood in relational terms and seen to possess emergent properties that no agent possesses; conversely, agents are understood to possess emergent properties that render their behaviour irreducible to their structural context. According to critical realism, social structures always pre-exist human interactions; interactions which in turn contribute to either reproduce or transform those very structures.
- Critical realists differentiate between social structures and cultural structures. The latter is understood as objectively existing relations between ideas.

5 Practicing Critical Realism

Many philosophy of science texts leave their readers with the impression that once you have sorted out the philosophical arguments, you are fully equipped to get involved in scientific practice. Alas, it is not that simple. At least not for critical realists. Philosophy of science and social science are fields that produce different kinds of knowledge, and consequently, one cannot without further ado move from one to the other. What, then, is the division of labour between philosophy and social science? What are the implications of critical realism for social scientific practice? Above all, how does one generate knowledge of the deep domain? The present chapter addresses these questions. For instance, in dealing with critical realist methodology, it focuses on the methods that can be used in research informed by this perspective. Furthermore, the chapter addresses the issue of how ethics and critique should enter the research process according to critical realism.

Learning objectives

- Understand the division of labour between the philosophy of science and social scientific practice envisaged by critical realists
- Comprehend the importance of 'role model' works
- Gain insights into how to analyse the deep domain
- Apprehend how critical realists judge quantitative and qualitative methods
- Recognise how neoliberalism shapes the production of knowledge
- Understand how facts and values are held to be related and what explanatory critique involves

FROM PHILOSOPHY OF SCIENCE TO SOCIAL SCIENTIFIC PRACTICE

In *The Possibility of Naturalism*, Bhaskar (2015: 8) suggests a division of labour in which (social) scientists generate knowledge of concrete structures and phenomena in the real world, so-called 'first-order knowledge', whereas philosophers of science confine themselves to generating knowledge about the necessary conditions for the production of scientific knowledge, so-called 'second-order knowledge'. It follows that, while critical realism can inform us that one condition for some given scientific activities to be possible is that reality is structured and stratified, "it cannot tell us what structures the world contains and how they differ. These are entirely matters for substantive scientific investigation" (2015: 5). This division of labour rules out the possibility of moving from critical realism at the philosophical level to a specific privileged way of conducting research at the level of social science. Indeed, Bhaskar (2015: 5) argues that philosophy must "avoid any commitment to the content of specific theories" and Lawson writes that "there can be no question of proposing the critical realist substantive account of anything" (Lawson 1997: 326).

Critical realism is as such fundamentally *pluralistic*. However, as it entails ontological and epistemological commitments, it is not relativistic. Specifically, it follows from the critical realist *ontology* that social scientific practices will typically revolve around explaining phenomena and processes caused by a variety of structures and mechanisms existing in the deep domain. Consequently, research resonating with critical realism will often seek to provide answers to questions starting with 'what' or 'why'. For example, 'what causes CO_2 emissions to rise?' Or 'why is neoliberalism becoming increasingly widespread notwithstanding its crisis?' In a similar vein, the *epistemology* of critical realism has general consequences for scientific practice. Most importantly, knowledge production never occurs in a vacuum. All theories, explanatory models and empirical studies implicitly or explicitly relate to existing knowledge. This does not mean that there can be no change in existing knowledge; only that such change occurs against the background of what already is. The practical implication is that when studying social phenomena, you should familiarise yourself with existing knowledge and explicitly relate your work to it. No privileged foundation of knowledge exists that can relieve you from relating to other perspectives and competing theories.

While it is not the task of the philosophy of science – critical realism included – to dictate scientific practice, critical realist philosophy aims to "underlabour for the concrete research practices of the various human sciences"

(Bhaskar 2015: 179) by removing untenable philosophical assumptions and positions that lie in the way of scientific knowledge (Bhaskar 2016: 2). In relation to concrete research projects, underlabouring can entail that the practitioner draws on critical realist philosophy to reflect on the feasibility of the ontological assumptions that her/his research practices or analysis presuppose. If those assumptions turn out to be problematic, it should lead to changes in the research practices or analysis. For example, if reflections on the assumptions underpinning an analysis of the causes of the climate crisis reveal that the analysis ascribes almost no importance to agency and culture, it should prompt the practitioner to reconsider this analysis.

Core concept: Underlabouring

The term underlabouring was first employed by the philosopher John Locke (1632–1704) and later was adopted by critical realists. The point of underlabouring is to support and strengthen the sciences by encouraging critical reflection on the part of scientific practitioners. This can involve attempts to bring into light the philosophical underpinnings of, and contradictions within, scientific discourses (see Nielsen 2007c: 75).

A rich literature on how critical realist research can be conducted exists (see, e.g., Sayer 2010; Maxwell 2012; Edwards et al. 2014; Emmel et al. 2018). Some critical realists have developed models that divide the research process into a series of steps or phases (see, e.g., Bhaskar 2008a: 115; 2015: 129; Danermark et al. 2019: 129–131). However, as Bhaskar (2015: 25) underscores, it is the *nature* of the objects we study that determines *what* knowledge we can obtain about them, and thus also *how* this knowledge can be acquired. The use of methods should always be *context-dependent*, and caution is thus needed when outlining universal models or procedures. It cannot automatically be assumed that it makes sense to follow a procedure that works well when studying, say, unemployment rates when studying other phenomena such as, say, infertility rates or insolvency rates. The existence of the abovementioned formal models can be seen to exemplify the difference between theory and practice in the social sciences. While it may, in theory, be the case that critical realist research could proceed in accordance with these models, in practice, there are, to our knowledge, very few examples of critical realist scholars who follow such models slavishly or even to a substantial extent in their scientific practice (see, e.g., Bhaskar

et al. 2018). Instead of outlining a step-by-step procedure in what follows, then, we highlight a series of key methodological elements that can form part of the research that draws on critical realism. These include interdisciplinarity, role model works, retroduction, abstraction and conceptual precision.

Core concept: Methodology

Methodology concerns how (social) science is practiced. It relates both to abstract questions about what science is or is not and more concrete questions regarding how one can conduct scientific research in practice.

INTERDISCIPLINARITY, 'ROLE MODEL' WORKS AND EXTRAORDINARY CIRCUMSTANCES

Critical realists advocate interdisciplinarity. In the words of Bhaskar et al. (2018: 148), "applied critical realist science is simply another term for interdisciplinarity". The reason for this is ontological. Critical realists regard reality as consisting of open systems that are entangled with one another in all sorts of ways. By implication, the structures, mechanisms and causal relationships that researchers seek to uncover by no means respect disciplinary boundaries. Critical realism thus generally aims to break down such boundaries to cultivate a holistic perspective. On this view, it is deeply problematic to approach inextricably interwoven phenomena – say economic and climatic conditions – from mono-disciplinary perspectives. Critical realists advocate a perspective that cuts across natural science, the humanities and the social sciences, while at the same time recognising their differences.

Critical realism in action: Nature and society

'Why are Sociologists Naturephobes'? asks critical realist Ted Benton (2001). His answer revolves around the dualism between nature on the one hand and culture and society on the other. In Benton's view, the works of sociologists are typically reductionist in that they focus exclusively on society and culture while altogether neglecting nature. An

alternative does, however, exist. By engaging for example with the early writings of Marx, the first generation of critical theory and/or contemporary scholars like David Harvey, the dualism can be transcended. Such a critical sociological response to the ecological challenge may, according to Benton, spark a progressive dialogue between researchers and environmental movements. As such, it can contribute to provide an alternative to currently dominating responses to ecological problems, namely the technological and market-friendly solutions suggested by advocates of neoliberalism, mainstream economics and rational choice theory.

Research informed by critical realism often draws on 'role model' works and 'counter-images'. The work of some scholars is seen as a role model, meaning that we can follow it – or be inspired by it – in our own scientific practice. Other works are considered to embody deeply problematic assumptions and/or research practices and are thus held to be counter-images that the critical realist researcher should systematically distance her/his own research from. For example, as reflected in the present book, mainstream economics is often used as a counter-image by critical realists. By contrast, works by scholars such as Marx, Thorstein Veblen (1857–1929) and John Maynard Keynes (1883–1946) are frequently highlighted as *implicitly* resonating with critical realism. Examples of more contemporary scholars, some of whose works could be placed in this category, include Bourdieu, Raworth and Naomi Klein. Moreover, some major social theorists have *explicitly* linked their work to critical realism, cases in point being Fairclough and Jessop. Drawing on role model works, it becomes possible to relate one's own scientific practice to existing research that is either explicitly grounded in critical realism or implicitly consistent with it.

As noted in Chapter 3, a decisive epistemological difference between the natural and social sciences is that it is not feasible to conduct controlled experiments in the social sciences. If one is to believe Andrew Collier (1994: 165) and Bhaskar (2015: 48), however, extraordinary circumstances such as crises, transition phases or other extreme situations can, in the social sciences, constitute a partial analogy to natural scientific experiments (see also Jessop 2015: 245). The idea is that important matters become more visible and accessible under such circumstances, making it possible to obtain knowledge that is also of relevance in relation to 'normal' situations. For example, studying countries suffering from high unemployment rates or which experience periods with major transformations in work forms can help us gain important knowledge of work

more generally. Likewise, the crisis of neoliberalism since the financial breakdown in 2008, and the increased visibility of conflicts and alternatives, have contributed to shed light on the nature of neoliberalism and its inherent contradictions. In a similar vein, the climate crisis is a new and sharp prism through which it becomes possible to illuminate and analyse the problematic relationship that human beings have had with nature through generations.

Critical realism in action: Crises

According to Jessop (2015), crisis is a topic that has received surprisingly little attention in critical realism, even though many critical realists have observed that crises can serve as important entry points in social research. Jessop notes that crises can potentially be sources of retroductive insights and be used to generate hypotheses. Moreover, crisis is relevant to the structure-agency relation as well as to reflections on human flourishing. In Jessop's view, crises are both objectively determined and subjectively indeterminate, corresponding respectively to objective danger and action opportunity. They are moments in time when appropriate decisive action can more easily change the future. Some crises, however, are more radical than others and thus present us with the opportunity for more systemic changes. The deep crises of the postwar regimes in the 1970s were interpreted in ways that produced the subsequent neoliberal transformation that is still very much in motion. In recent times, neoliberalism itself has been subject to crisis dynamics. The crisis of neoliberalism is, according to Jessop, a financial, economic and political crisis with potential radical effects on the future course of society, depending on how major agents interpret, learn from and act upon it.

INTO THE DEEP: RETRODUCTION AND ABSTRACTION

What do theorists and empirical researchers who are inspired by critical realism more concretely base their practice on? Specifically, how does one identify the unobservable structures and mechanisms at the deep domain that cause phenomena on the surface of society? This question is key in critical realist methodology, and the answer revolves around the concepts of retroduction and abstraction.

Retroduction constitutes an alternative or supplement to deduction and induction, two traditional modes of reasoning that concern how to reach

well-founded conclusions based on given premises. In short, deduction involves a logical movement from a general statement to particular cases, while induction involves moving from a number of particular cases to a general statement. For example, we can imagine observing two specific persons: Peter, who goes to work every day for a period of time and Hubert, who, being unemployed, does not go to work. A *deductive approach* to this case could draw on the notion found in mainstream economics that people will only work if they have a clear economic incentive to do so. Taking this universal model of human behaviour as the premise, it will be concluded that Peter – like all other employees – goes to work based on a calculation of the utility derived from this activity relative to the utility that could be derived from other activities. Peter will, in other words, only choose to work if he gets more money out of this activity than of any other activity. Formally, it is possible to reason from the general premise 'all human beings are utility-maximisers' and the particular premise 'Peter maximises his utility by going to work' to the conclusion 'Peter goes to work'. For Hubert, the particular premise and the conclusion instead goes as follows: 'Hubert does not maximise his utility by going to work' and 'Hubert is unemployed'. An *inductive approach* could be to conclude, based on our observations, that Peter is likely to also go to work tomorrow, whereas the opposite is the case for Hubert. Further observations of other people going to work (or not), could then lead to more general statements about work in society.

Retroduction is associated with what Charles S. Peirce (1839–1914) referred to as 'abduction'. It relates to the same problem field as deduction and induction, but it does not to the same extent draw on formal logic, and it turns the relationship between premises and conclusion upside down. If we imagine a traditional syllogism with two premises and a conclusion, then retroduction is not about how to reach the conclusion, but about finding the premise(s) when the conclusion is given. This movement from conclusion to premise(s) implies a movement in depth. Retroduction involves taking some manifest phenomenon or outcome of interest as a starting point ('the conclusion') and then considering what mechanisms must *in all likelihood* exist for the phenomenon/outcome to be what it is (the 'premise(s)'). Retroduction thus invites the question 'what must the world be like for phenomenon/outcome X to have happened'? and is closely associated with what was referred to as transcendental arguments in Chapter 3. In the process of hypothesising mechanisms, the researcher can draw on existing theories as well as on empirical research on related cases. The process also involves creativity and imagination, and analogies or metaphors can be utilised (see, for example, Lewis 1999; López 2001). Once the existence of one or more mechanisms has been postulated, the researcher seeks to empirically scrutinise the reality of the mechanism(s) (Bhaskar 2011a: 19).

To illustrate the retroductive approach, we can ask what social conditions, structures and relations constitute preconditions for a person to be able to 'go to work' and also ask about the reasons why some people work while others are unemployed. In answering these questions, one can for instance point to the separation between work and leisure, relations between employers and employees, as well as various practices, structures and organisations in the labour market such as job interviews, contracts, layoff rules and unions. This leads to a deeper understanding of the phenomenon of 'going to work' and can help the researcher to track various causal relationships. It can moreover involve a contextualisation of the relationship between agents and structures in the labour market.

Such a retroductive approach to work, or the lack of it, can be seen to have characterised the works of both Marx and Keynes, and it did so in different ways, which goes to show that retroduction is an open and historically rooted process. Work occupied a central position in the analyses of both these classic theorists' analyses of society. Marx's (1977) analysis of early industrialisation in the nineteenth century associated the creation of a distinct worker identity with class struggles and the prospects of a possible breakdown of capitalist society. Later on, in the context of the Great Depression of the 1930s, Keynes (1960) pointed out that the market economy cannot by itself establish an equilibrium in the labour market. In fact, unemployment can constitute a lasting and self-reinforcing phenomenon if aggregate demand in the economy is not actively stimulated. Both Marx and Keynes examined significant empirical facts about labour and labour conditions in their times and sought to explain them via depth analyses of the capitalist economy, resulting in original new theories that challenged conventional economic wisdom.

Critical realism in action: Bullshit jobs

Both Marx and Keynes considered work to be an economic necessity that had to be transcended in order to achieve real freedom. Keynes predicted that by the early twenty-first century the workweek would be around 15 hours. Why is it then, wonders David Graeber (2013, see also 2018), that most people today work 40–50 hours or more? He observes a massive growth in meaningless and unnecessary jobs in, for instance, financial services, administration, corporate law and public relations. He refers to these as 'bullshit jobs'. While one could expect an elimination of such jobs under a capitalist market economy, ironically the opposite is happening. Similar to what was the case in the former Soviet Union, 'bullshit jobs' flourish in contemporary capitalism. Being a critical realist, Graeber is

well aware that no objective measure of the social value of jobs exists, but he also observes that many people performing 'bullshit jobs' actually recognise that their line of work is pointless. On top of that, those who do meaningful work crucial to the functioning of society – including garbage collectors, nurses and schoolteachers – earn low wages and are squeezed and downsized. To Graeber, this is one of the major political and ethical issue of our time.

Writing from an economics background, Lawson (1997: 204–215) argues that even though empirical regularities are *not* invariant and immutable, and even though the identification of regularities does by no means constitute the essence of science, so-called 'demi-regularities' (or 'demi-regs') exist and can be of scientific interest. A demi-regularity is defined as "a partial event regularity which prima facie indicates the occasional, but less than universal actualization of a mechanism or tendency, over a definite region of time-space" (1997: 204). Observations of such demi-regularities are, according to Lawson, the fuel setting in motion many scientific activities. For Marx, it was class struggles, and to Keynes, it was persistent unemployment that served as the demi-regularities that fuelled much of their scientific work.

Lawson's method of *contrast explanation* deserves mentioning in this context (see also Morgan and Patomäki 2017). This method can be used by researchers to identify the causes of phenomena of interest. Identified causes will typically "not be (just) events, but underlying mechanisms, powers, structures, processes, totalities or whatever, which produced, or at least facilitated, the phenomenon of interest" (Lawson 2009: 406). The idea is to start out from some outcomes that diverge from one another in a context in which one would expect them to be similar because they share similar causal histories. Such puzzling differences can mean that a single (set of) cause(s) is responsible for producing the difference, rendering causal explanation less complex than it would otherwise be. To identify the cause(s) of the contrastive outcome – which could, for instance, be contrastive demi-regularities – the researcher can, for instance, utilise retroductive reasoning and theories to hypothesise potential causes. According to critical realists, theories are to be assessed not on their ability to accurately predict outcomes but on their *explanatory power* (Isaksen 2016). That is, theories are to be evaluated on their ability to account for the main causes of empirical phenomena. Theory A is better than theory B if it can provide a more accurate account of the causes of phenomenon X – or if it is able to shed light on a broader range of empirical phenomena. The latter aspect can relate to the ability of the theory to accommodate contrastive demi-regularities (Lawson 1997: 213).

Retroduction is often used in conjunction with another methodological cornerstone in critical realism, namely *abstraction* (Sayer 2010: 58–79; 1998). Corresponding to natural scientific experiments, abstraction consists in a kind of thought experiment that enables us to develop systematic insights into the deep structures that condition concrete activities and relationships. At its best, social scientific practice involves both concrete and abstract elements that play together and refer to the same phenomena. Marx is an example of a scholar who took an interest in both abstract and concrete conditions (see also Jessop 1982: 213–220, 1990: 10–13). His analysis of work (Marx 1977) is a case in point. Starting from 'concrete labour', which could be what Peter does in the above example, Marx developed a complementary category, which he called 'abstract labour'. Abstract labour is a category comprising what all sorts of labour have in common and which makes it possible to compare and measure them on the same scale through salaries. This distinction between abstract and concrete labour is among the most revolutionary ones in Marx's works; indeed, it has theoretical and practical consequences that are crucial to his understanding and critique of capitalism. To Marx, the relation between the two sides of work constituted an essential component of the political economy, namely use value and exchange value. Whereas use value is qualitative and concrete, exchange value is quantitative and abstract. Work is *both* a concrete and qualitative life practice that assumes many different forms *and* the precondition for a wage income that not only quantitatively connects the work to other forms of wage labour, but which also establishes an abstract relation to other objects with a price tag. Labour power thus becomes a commodity on a par with inanimate objects such as smartphones and sweatshirts. Conversely, such dead objects are always the subject of concrete experiences when they are used by people and form part of social contexts.

It is important that research relates both to the concrete and the abstract. Abstraction can be blown out of proportion and lose connection to the concrete, becoming a hindrance to the production of social scientific knowledge of real social phenomena. Indeed, this is one of the major problems in mainstream economics, which is almost exclusively preoccupied with exchange value and which relates solely to an abstract and self-referential universe in which rational actors interact and establish prices in markets with 'perfect competition'. Certainly, rationality, utility, markets and prices are abstract factors that can be relevant to societal analyses in specific contexts but it becomes problematic when such factors are treated as universal and independent of concrete lives and contexts. Blinded by abstraction, mainstream economics has become detached from the reality one would expect it to be able to produce knowledge of, i.e., real-world economic conditions.

THE QUANTITATIVE AND THE QUALITATIVE

Some critical realists express strong aversions to the use of quantitative methods in the social sciences (e.g., Collier 1994: 251–252). Bhaskar (2015: 46) argues that, whereas the use of measurements and quantitative methods makes sense in the natural sciences, their possibility is circumscribed in the social sciences, the objects of which are based on meaning and concepts. In his words, "meanings cannot be measured, only understood. Hypotheses about them must be expressed in language, and confirmed in dialogue" (2015: 46). He suggests that in the social sciences, *conceptual precision* assumes the place measurements have in the natural sciences. Whereas conceptual precision is a cornerstone of critical realist methodology, numbers and correlations are not regarded as essential to, let alone the end goal of, social science.

Critical realism in action: Social network analysis

Social network analysis involves techniques for mapping and analysing complexes of social relations. Moreover, it provides social-theoretical perspectives that shed light on the nature and importance of networks. Relating social network analysis to established philosophy of science perspectives, Hubert Buch-Hansen (2014b) observes a tension in the approach. On the one hand, many social network analyses are implicitly consistent with positivism: they are deductivist and aspire to generalise and make predictions. On the other hand, the perspectives developed by leading social network theorists tend to resonate with basic critical realism. Buch-Hansen suggests that social network analysis can be fully 'detached' from positivism and be of great value in critical realist research by helping practitioners produce in-depth knowledge of the nature of various structures; structures that are not otherwise visible. However, social network analysis can not dig out the mechanisms that have caused a phenomenon of interest. In research informed by critical realism, it will thus typically be relevant to combine it with other methods.

While quantitative approaches such as social network analysis can help researchers to map and analyse some forms of social structures, conditions on the deep domain can, for the most part, *not* be quantified. Qualitative concepts

and methods thus become indispensable. In general, critical realists lean towards using qualitative methods such as interviews (Smith and Elger 2014), action research (Houston 2010), case studies (Easton 2010) and critical discourse analysis (Fairclough 2010).

Critical realism in action: Case studies

Geoff Easton (2010) argues that case study research in the field of industrial marketing typically lacks proper ontological and epistemological underpinnings. He suggests that critical realism can provide such underpinnings, observing that a case approach informed by this perspective is "particularly well suited to relatively clearly bounded, but complex, phenomena such as organisations, interorganisational relationships or nets of connected organisations" (2010: 123). Easton outlines various steps or tasks in critical realist case research: once the phenomenon to be studied has been identified and delineated, the researcher poses a question concerning the causes of the phenomenon. The phenomenon and possible causes are subsequently conceptualised using abstraction, retroduction, theory and models. Then follows the process of data collection and interpretation. The research process is typically iterative: along the way, reconceptualisation and collection of more data may be necessary in order to come to terms with the mechanisms at work. Through a study of a company's implementation of a new customer relationship management system, Easton provides an illustration of critical realist case research.

Particularly in recent times, however, there has been a tendency for many scholars with a critical realist outlook, including Bhaskar, to view the use of quantitative methods in the social sciences in a more favourable light (Bhaskar with Hartwig 2010: 77). For instance, there can be socially important conditions in nature that it makes sense to quantify. Cases in point are biodiversity loss and climatic conditions such as CO_2 emissions or the concentration of CO_2 in the atmosphere. It can also be important to measure and compare actual social conditions such as inequality, unemployment, economic growth and labour productivity. Not only can numbers be important in social scientific analyses; numbers can also play a crucial role in relation to the initiation and framing of such research. For instance, singular quantitative data showing that

economic inequality is growing or that the global average temperature is rising can lead to new research – as can the identification of quantitative relationships such as correlations between economic growth and CO_2 emissions. To many critical realists, *mixed methods,* which combine the quantitative and the qualitative, are considered a good alternative to taking *either* a quantitative *or* a qualitative approach. In the words of Hurrell (2014: 263), mixed methods "can help overcome the false qualitative/quantitative divide to achieve the 'best of both worlds' and, in doing so, can allow the complexity and mechanisms of the social world come to life" (see also Zachariadis et al. 2013; Brown and Roberts 2014).

As noted above, conceptual precision is a cornerstone of critical realist methodology, meaning that conceptual work comes to play a major role in the research process. In many cases, the concepts we use in the social sciences are highly complex. Returning to the above example, several meanings are ascribed to the concept of work. This creates many possibilities for ambiguities and misunderstandings. It is thus a task in itself for the researcher to clarify the concept of work qualitatively and to define it clearly before applying it in theoretical and empirical contexts. To mainstream economists, this is a simple matter inasmuch as they equate work with wage labour, i.e., activities that result in a salary and that are therefore market-based. This exemplifies their general approach, which relates one-sidedly to markets and prices. Reality is, however, not this simple. Markets are not self-sustaining, and work that is essential to the continued existence of the market economy is conducted in the absence of wages. For instance, childcare undertaken in families and communities is of crucial importance to the ability of people to function as employees on the labour market. In the absence of such care work, capitalism would break down due to a shortage of labour power. Nonetheless, it is unpaid work, and as numerous feminists have rightly pointed out, it is typically carried out by women. Likewise, one can ask mainstream economists why it counts as work when a chef prepares a meal in a restaurant but not when she cooks her own food at home. On what scientific basis is it justified to privilege markets and money by one-sidedly associating work with wage labour? Conversely, it would also be wrong to ignore the fact that work in capitalist societies increasingly takes the form of wage labour – as when child care and other forms of care work is partially marketised, for instance in the form of *au pairs* or in public or private care institutions such as kindergartens. More generally, the marketisation resulting from the evolution of capitalism and neoliberal policies has given rise to a comprehensive quantification of society, the reason being that markets operate quantitatively. In short, we live in a society in which numbers are becoming ever more widespread.

Conceptual precision is crucial, as most of the concepts we use in the social sciences are ambiguous. There are, for example, several diverging views as to what 'neoliberalism' is, meaning that misunderstandings and miscommunications easily arise (Jessop 2013: 65; Sayer 2016b: 377). It can be noted in this context that we have included the 'core concept' boxes throughout the present book precisely with a view to render the meanings of the concepts in question as clear as possible. It is also worth noting that the most precise concepts are not always those appearing most 'neutral'. You may have noticed that in most cases we have opted to use concepts such as 'climate crisis', 'climate breakdown' and 'global heating' instead of the softer and more widely used concepts of 'climate change' and 'global warming'. Our reason for doing so is that the former concepts are better at capturing the seriousness of the situation, while the latter concepts have a more soothing effect (see also Price 2019: 41).

KNOWLEDGE PRODUCTION IN NEOLIBERAL TIMES

Critical realism does not portray social scientific practices as easy or unproblematic. Indeed, for various reasons, they are not. One reason is that societies continuously change in unpredictable ways, meaning that research findings have an imminent expiry date. To be sure, unforeseen events or surprising developments do not necessarily make theories entirely collapse, as could be implied by the notion of falsification. In-depth social scientific analyses can remain relevant for decades or even centuries in spite of being partially outdated. Here one can, for instance, think of the continued interest in the works of Marx. Even though much has changed since Marx's lifetime, we still live in capitalist societies, and Marx's analysis of this type of society is still in important respects convincing. However, contemporary capitalism requires new analyses and concepts, and even though critical realists, as mentioned above, draw inspiration from role model works by classical scholars such as Marx, they are generally far more interested in contemporary social reality than in canonising texts of a distant past.

Another and more fundamental reason as to why conducting social scientific research is not unproblematic, is that social reality is always distant and external – and our senses do not give us direct access to the aspects of reality that matter the most for our social life. We are also spun into a web of discourses and social relations, which often influence research practices negatively, as when research activities take place in private companies or are subjected to neoliberal agendas; as in, for example, the Organisation for Economic Co-operation and

Development (OECD) or the World Bank. Neoliberalism also has a major impact on university research. Most universities have for decades been deeply influenced by neoliberal forms of organisation and governance, including management practices imported from the corporate world, which have limited the freedom of research. Neoliberalism has spread across universities not so much through the *content* of research (Patomäki 2019: 192), as because of the *conditions* under which research is carried out (Fairclough 2010: 100–125; Nielsen 2011: 163–165, 240–242). Short-term commercial interests linked to market considerations have come to influence research, as funding is increasingly distributed based on competition between researchers in money games that produce more losers than winners. Certainly, it is difficult to imagine universities devoid of professional competition and personal ambitions, but during the neoliberal era, the universities have undergone a creeping transformation, so that education and research are now more than ever before characterised by economic competition and economic ambitions. This state of affairs can very easily clash with genuine scientific interests.

Critical realists recognise these and other problematic aspects of knowledge production. Despite all reservations, however, they maintain that conducting social research is worthwhile. After all, gaining insights into the nature of the (social) world is a precondition for being able to improve it.

ETHICS AND EXPLANATORY CRITIQUE

Social scientific research is never conducted in a vacuum. Research practices are squeezed in between the philosophy of science on the one hand and ethics on the other. It is nonetheless quite common for researchers to turn a blind eye to the fields of philosophy and ethics. A manifestation of this is research in which philosophical reflections are marginalised or altogether omitted, while methods – often in the sense of formal and technical approaches – take centre stage. Such methods are typically presented as if they are neutral and objective, meaning that research can appear disconnected from ethical aspects, as if it keeps subjective values at bay. The often-implicit view underpinning such research is that it is the researcher's task to focus solely on producing objective knowledge. It is then up to philosophers to situate scientific methods in a broader context and to policymakers to assess – and possibly act on – scientific results. Critical realists see things differently. In their view, social scientific practice is never pure or innocent. Instead, it is entangled with other aspects of social life. By

implication, making method the all-important focal point of research, while pushing aside philosophical and ethical considerations, is doomed to result in blind spots that give rise to all sorts of unintended consequences. Critical realism is thus preoccupied with how different fields interact and with how a holistic perspective can enrich our understanding of all of them.

Core concept: Ethics

Ethics concerns what ought to be, i.e., what constitutes a good life and a good society albeit not necessarily with reference only to humans, since non-human life and the environment can be included in their own rights. Ethics entails value statements such as 'democracy is good' or 'sustainability is the ideal'. Such value statements reflect a commitment to strive for a realisation of that being valued and to avoid that which is being negated, such as an undemocratic or unsustainable society.

As explained in Chapter 4, critical realism seeks to overcome a range of dualisms that have traditionally pervaded the social sciences. An all-important dualism that characterises positivism, in particular, is the notion that facts and values are completely separate. The so-called 'Hume's law' stipulates that "there is no way to get from a factual statement to a value statement" (Bhaskar et al. 2018: 38; see also Sayer 2011: 28ff.). Consequently, all statements are considered to be of either one or the other type. On this view, the sciences are to deal solely with the factual, whereas values, as the flipside to science, should ideally be altogether eliminated. Even though few people today have an unconditional faith in the objectivity and purity of the sciences, it does remain a sacred ideal for many. Indeed, the identity and institutions of the sciences are premised on the notion of objectivity to such an extent that, despite massive critique, it survives and is ritually celebrated and supported by the top brass.

The critical realist perspective on facts and values is summarised by Bhaskar (2011b: 145) in the following manner:

> While facts and theories are influenced by our values and practices, it is also possible rationally to derive values and practical judgements from deep explanatory social theories. The textbook doctrine that fact and value, theory and practice belong to different realms creates an artificial barrier between sociology and ethics.

This perspective is reflected in Bhaskar's notion that the social sciences should have an ambition to deliver *explanatory critique*. On this view, the social sciences should contribute to criticise false ideas as well as the institutions disseminating such ideas. Contrary to 'Hume's law', *it is* in some cases possible to move from a factual statement to a value statement. That is, it is preferable to subscribe to values based on ideas that, to the best of our (fallible) knowledge, constitute accurate representations of reality rather than to values that are based on false ideas. For example, imagine that Peter, from our above example, cares about the environment but believes that the climate breakdown is not a human-made phenomenon. On this basis, he sees no need to limit the magnitude of his CO_2 emissions in work and consumption. Why should he abstain from flying as often as he feels like or from eating as much meat as he pleases? Peter's values are based on specific ideas about the world. If those ideas turn out to be factually wrong – as the current scientific consensus on the matter would strongly suggest they are – then there are grounds for criticising them. There are also grounds for criticising the institutions contributing to the spread of those false ideas, such as the numerous organisations that attack climate science. And for Peter, there are grounds for reconsidering his lifestyle in order to counter the climate crisis.

In general, critical realists consider it a key task of the social sciences to produce social critique based on knowledge so as to create a better society. Bhaskar envisions an emancipatory spiral in which the social sciences produce knowledge of repressive and unjust structures and then engage with social movements to change those structures. This ambition and perspective on the relation between science and ethics did not originate in Bhaskar's work, but he is the first thinker who systematically incorporated an emancipatory project in a philosophy of science perspective (Bhaskar 2009: 103–223; Collier 1994: 169–204; Archer et al. 1998: 383–558).

Sayer (2000: 155–188) is a distinct voice among those who build critically on Bhaskar's arguments to advocate a far-reaching moral and ethical turn in the social sciences. In *Why Things Matter to People*, he articulates an ethics of human flourishing with affinities to the capabilities approach developed by Amartya Sen and Martha Nussbaum (Sayer 2011: 233–240; see also Jackson 2009: 35–47). Also, Collier's *Being and Worth* is portrayed as "an essay in critically realistic ethics" (Collier 1999: vii). For Bhaskar and many other critical realists, this ethical engagement is explicitly political. Bhaskar (2011a: 1–10; 2011b: 143), Collier (1999: vii–viii) and Fairclough (2001b: 4) make no secret of their socialist beliefs. Sayer (1995, 2000) associates himself with what he more broadly refers to as the Left (see also Sayer 2016b: 367; Bhaskar with Hartwig

2010: 205; 2002a: 190–201). Overall, most if not all of the leading critical realists are Leftists.

It is not unusual that a connection exists between a philosophy of science perspective and ethical convictions. What is unusual is that critical realists do not attempt to explain away the connections between philosophy, science and ethics. In this context, they generally abstain from the common practice of elevating one's own research to the status of being objective while insinuating that the works of others are unscientific. This practice, is for instance, exercised by mainstream economists. On the one hand, they firmly reject ethical criticisms of their research by invoking positivistic notions of objectivity and neutrality. On the other hand, however, there is no doubt that mainstream economics, in addition to being based on dubious philosophical and methodological assumptions, is deeply rooted in ethical values. Mainstream economists believe that capitalism and markets work in the interest of everyone and are moreover adamant that greater private consumption and Gross Domestic Product (GDP) growth are the means to maximise the utility of the population, hereby bringing about the good society (Nielsen 2011: 35–41). This, to be sure, is a legitimate point of view. However, it is a bit of a mystery how mainstream economists can regard their research practice as being purely scientific and objective when they openly glorify capitalism and consistently make policy recommendations that can only be regarded as inherently ethical. This, for instance, happens when they recommend deregulating the financial sector or implementing tax cuts while restricting access to social services such as pensions and education. It is not scientific to pay tribute to capitalism and to recommend marketisation: it is ethical. And when capitalist ideology and dogmatic neoliberal faith in marketisation and individual freedom are hidden behind a veil of apparent objectivity, it is an outright deception.

Even though critical realists recognise that multiple relations exist between philosophy, science and ethics in both thought and practice, it is *not* the case that critical realism can be reduced to being a scientific and/or an ethical project. As Bhaskar (2011a: 3) points out, critical realism "is not, nor does it license, either a set of substantive analyses or a set of practical policies". Above all, it is a philosophy of science perspective, but it is situated in a differentiated totality and seeks to transcend the 'trialism' between philosophy, science and ethics. Even though there are countless connections and interactions between these three fields, each field is also *relatively autonomous*. Transcendental arguments, the stratified ontology and the agency-structure conceptualisation are but some of the key aspects of critical realism that neither depend on specific scientific analyses or empirical results nor necessarily involve specific ethical positions. It is thus necessary to make a sharp distinction between different

approaches and levels of abstraction, while recognizing that it will never suffice to focus exclusively on one of them. That is, no single vantage point exists from which a clear overview of the whole picture can be obtained.

Summary

- While the philosophy of science should not be imposed on research practitioners, critical realists believe that philosophical reflection can inform the social sciences. They envision a division of labour in which researchers produce knowledge of structures and phenomena in the social world, whereas philosophers of science generate knowledge of the necessary conditions for the production of social scientific knowledge.
- Critical realist research often draws on 'role model' works. These can be both classical works by, for instance, Marx and Keynes or contemporary works by, for example, Bourdieu and Klein. Contemporary works are generally more relevant, being attuned to our present reality.
- When studying the deep domain, the researcher can make use of retroduction and abstraction as well as draw on substantive theory, existing research and a range of methods.
- Qualitative methods are typically favoured in critical realist social research, but some quantitative and mixed methods are also regarded as valid. Conceptual clarity is thought to be of central importance in social scientific research.
- In the neoliberal era, knowledge production is increasingly subsumed to economic competition and economic ambitions.
- Critical realists consider it possible to move from facts to values in some cases. Explanatory critique involves criticising false ideas and the actors and institutions spreading them.

6 Neoliberalism, Growth and the Climate Crisis

"We have the words of science on our side. Really, it is only those words that we bring forward", wrote climate activist Greta Thunberg (2019) shortly after 1.4 million school children and students from 112 countries had participated in school strikes for the climate in March 2019. Climate science has come to enjoy widespread attention and now constitutes a field of conflict similar to environmental research and critical social science 40–50 years ago. This development is a symptom of the increased public awareness of the worsening climate crisis that threatens to end civilisation as we know it. This crisis is unfolding in parallel with several other crises, the crisis of neoliberal capitalism being one of them.

In this chapter, we focus on the two running themes of the book – neoliberalism and the climate breakdown – to exemplify critical realism in both its complexity and specificity. Building on concepts and illustrations provided in previous chapters, we show what an analysis of the two themes informed by critical realism *could* involve. The example we provide here is brief, and it should not be considered representative of critical realism in general. It draws, for instance, on three loosely related books with contributions by Bhaskar and other critical realists (Bhaskar et al. 2010, 2012; Næss and Price 2016; see also Benton 2013; Buch-Hansen and Nielsen 2012).

Learning objectives

- Grasp how critical realists view the climate crisis and climate science differently from positivists and postmodernists
- Gain insights into some of the key mechanisms causing the climate breakdown
- Recognise how the neoliberal discourse differs from the climate narrative
- Gain insights into the consequences of the 2008 financial crisis
- Comprehend on what grounds the vision of 'green growth' can be subjected to an explanatory critique

CRITICAL REALISM AND CLIMATE CRISIS RESEARCH

According to the climate scientists in the United Nation's Intergovernmental Panel on Climate Change (IPCC), global heating is a reality. They recommend halting temperature increases at 1.5 °C above pre-industrial levels. To this end, global net emissions of CO_2 and other greenhouse gasses need to be reduced rapidly and drastically and, as regards CO_2, altogether phased out within a few decades. The precise scenarios change as time passes (and emissions continue) but briefly put, the message from the IPCC (2018) is that global net emissions of CO_2 need to be halved within 10 years and be eliminated around 2050 if the probability of disastrous and irreversible climate change is to be reduced to 50 percent.

How one approaches the climate crisis and climate science depends greatly on one's philosophy of science perspective. To a positivist, (climate) science is to be value-neutral and only the observable is considered real. Research on climate change is thus to be centred on identifying invariant event regularities, whereas structural causes cannot be objects of knowledge. To a postmodernist or radical constructionist, power, discourses and language games are of greater interest than the reality dealt with by climate scientists (see Chapter 7). The discourses of, and the games played by, climate scientists amongst others are seen as more relevant than the climate crisis; at any rate, it is considered impossible to say anything about the climate crisis itself.

To a critical realist, reality is separate from and takes primacy over research. On this view, the postmodernist belief that climate scientists are neither innocent nor infallible is correct. Indeed, power, paradigms, funding and many other things impact research in academia and elsewhere – but they do not, unlike what postmodernists and radical constructionists assume, construct the reality scientists produce knowledge about. The discourses and power games of climate researchers are in this sense irrelevant when it comes to the climate crisis. In contrast to both positivism and postmodernism, critical realism regards mechanisms and structures on the *deep domain* to be of decisive scientific importance. This view can be considered broadly consistent with existing climate science (Cornell and Parker 2010; Price 2019). Climate science gains new insights, and conclusions change continuously, as is, for instance, reflected in the reports from the IPCC. Knowledge of the climate breakdown is thus neither perfect nor certain, meaning that it would be a mistake to blindly trust climate scientists. Still, seen from the vantage point of critical realism, our knowledge is sufficiently certain to regard the climate crisis as real. Climate science is moreover not value-neutral. It calls not just for more research but for

action to prevent specific scenarios (e.g., Ripple et al. 2019). Such recommendations can be legitimised by a critical realist perspective but not a positivist or postmodernist one.

Indeed, many critical realists would agree that, against the backcloth of the climate emergency, other types of action may well be more needed than research, not least of which are fundamental changes in people's everyday practices (Sayer 2009b; Høyer 2010a). Consequently, they take a perspective on the climate crisis that not only revolves around philosophical and theoretical matters but also ethical ones, in particular, issues related to social equality, democracy and sustainability. Here it can be noted that to some extent critical realism and the new Left, including the environmental movement, are interwoven. More generally, links between climate science and the environmental movement have been observed. Høyer (2010b: 36) even associates the IPCC with the environmental movement and suggests that "this panel is the most comprehensive, counter-reductionist and interdisciplinary scientific endeavour ever achieved, clearly emphasised by its encompassing international structure and co-operation".

As a philosophy of science perspective, critical realism is not and cannot be a substantive theory of the nature, causes and consequences of the climate crisis. It is for the various branches of the sciences to come up with such theories and more generally to produce first-order knowledge. Yet critical realism can support specific ways of approaching climate crisis issues. For instance, given that climate changes "involve causal mechanisms that are related to the structures of both the social and the natural worlds" (Spash 2019: 271), critical realists would say that there is every reason to take an interdisciplinary approach when studying this phenomenon (Bhaskar 2010b). Moreover, critical realism encourages *social* scientific research that takes into consideration deep structures in addition to agency and discourses that acknowledges the openness of the social world and offers explanatory critiques. This perspective is reflected in the following sections in which we offer an analysis of some of the main causes of the climate crisis.

GROWTH AND CAPITALISM

According to critical realism, the generation of scientific knowledge involves moving from knowledge of manifest phenomena to knowledge of the deep structures and mechanisms that generate and sustain these phenomena. As regards the climate crisis, a manifest empirical correlation that many critical

realists have noticed and brought attention to is that between economic growth and CO_2 emissions. Economic growth is measured in terms of increases in consumption and investments in both the public and private sectors and is expressed in terms of the annual percent growth rate of real gross domestic product (GDP). GDP growth – also referred to simply as growth – entails that more is consumed and invested from year to year. Growth rates are a measure of the *relative* increase. If this increase is to remain at the same level, say 2 percent per year, then *absolute* growth needs to increase every year. Growth, then, is an exponential as opposed to a linear development. While it does not make a decisive difference in the short run whether growth is linear or exponential, over decades or centuries, it makes a huge difference. Because the world economy has, on average, grown 2 percent per year over the past 200 years, it is now 70 times bigger than it was at the outset of the period (see Figure 6.1)!

Neither consumption nor investments are economic activities that occur in a vacuum, even though it is typically portrayed in this way in mainstream economics. The economic system is embedded in biophysical reality. Economic

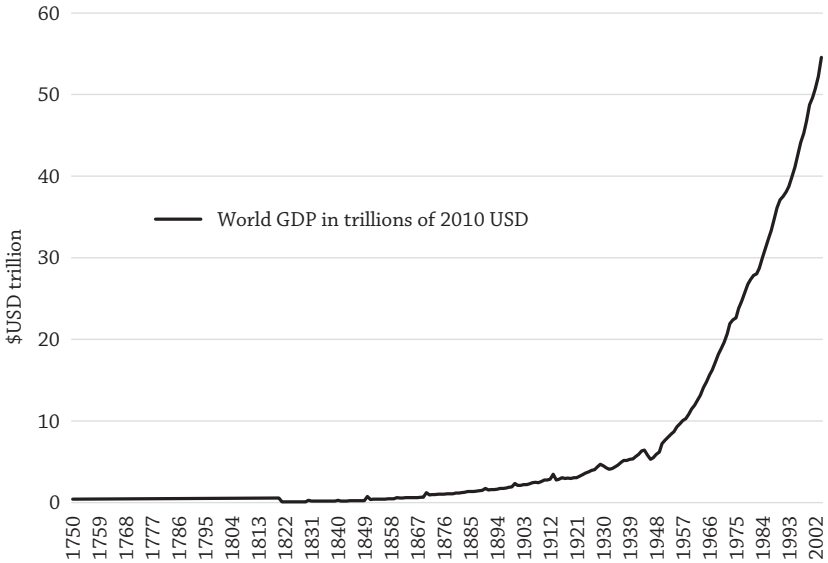

Figure 6.1 World GDP in trillions of 2010 USD, 1750–2004
Data source: Steffen et al. (2015)

activities and growth thus have environmental and climatic consequences (Xue 2012: 455–456). While the CO_2 emission growth rate has been a bit lower than the world economy growth rate, there is a clear connection between the two. And magnitudes are also closely linked in the sense that exponential GDP growth correlates with exponential growth in CO_2 emissions. Overall, the currently witnessed emission magnitude is as disastrous as the emission tendency is fatal (Sayer 2016b: 321). Total global annual emissions have quadrupled since 1960. The big financial crisis around 2008 led to negative growth in the world economy and a modest decline in CO_2 emissions in 2009. Yet as growth in the world economy was restored, emission growth resumed (see Figure 6.2). Not even in the wake of the 2015 Paris Accord, which was presented as a tremendous victory for the climate, have emissions decreased. In both 2017 and 2018, they grew around 1.5 percent. This figure should be seen against the backdrop of the IPCC's recommendation to reduce emissions by around 7 percent *every year* in the coming decade (IPCC 2018).

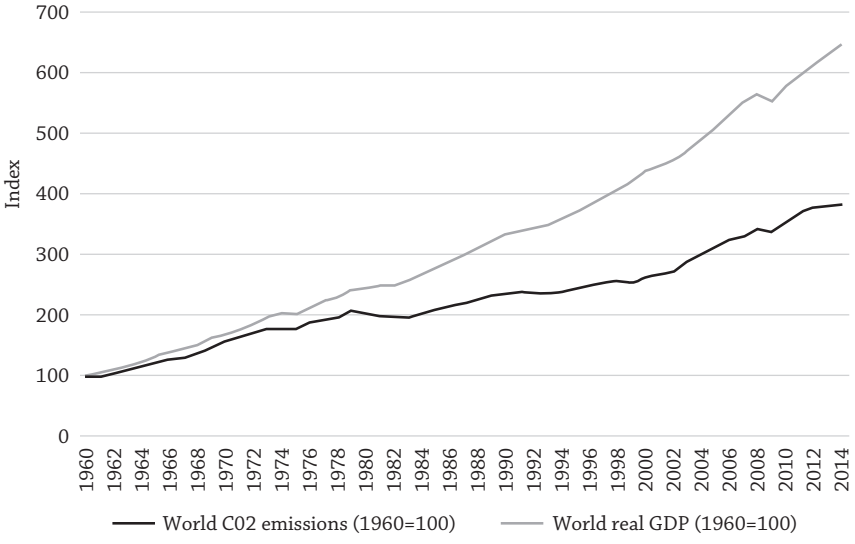

Figure 6.2 World GDP and CO_2 emissions, 1960–2014
Data source: https://data.worldbank.org/

Critical realism in action: The Paris Agreement

The Paris Agreement, which was adopted by the leaders of more than 170 countries at the Paris Climate Conference (COP 21) in December 2015, was hailed by participants and the media as a major turning point in the global struggle against climate change. Yet, the assessment of critical realist Clive Spash (2016) is that the agreement will change nothing. The problem with the agreement is that it "is a fantasy which lacks any actual plan of how to achieve the targets for emissions reductions" (2016: 930). Moreover, it is silent on the real causes of human-made climate change, not least fossil fuel combustion. To hide its lack of substance, the agreement is rife with doublespeak and ambiguous language. The major result of the agreement, argues Spash, is the continuation of economic growth and neoliberal policies, meaning that the current economic system, premised as it is on, for instance, mass conspicuous consumption and a throw-away culture, will be sustained. An acceleration of climate change is the inevitable outcome.

Critical realists do not consider the observed correlation between growth and emissions an invariant regularity or a universal law based on which precise predictions of future events can be made. It is, however, a solid correlation with a long history. As such, it can be seen as an example of a 'demi-regularity'. Yet the identification of a demi-regularity does not in itself explain much. The next step in a critical realist analysis is thus to turn the limelight on causality and structures in the deep domain. To this end, abstraction and retroduction are some of the available methodological instruments at hand. Abstraction could be used to look into the reasons as to *why* growth and emission rates are connected, by, for instance, digging deeper into relationships between capitalism and nature and conducting thought experiments on the way consumer culture impacts fossil fuel use. Alternatively, if we wish to identify the mechanisms in our social world driving economic growth, we could ask the following retroductive question: "What must social reality in all likelihood be like for economic growth to continue"? To answer this question, we do not need to start from scratch. We can evaluate and build on the several existing theories, models and concepts that have already been developed, using abstraction and retroduction, for instance, in the fields of political economy and ecological economics.

Countless scholars have reached the conclusion that the main reason why continued economic growth is – and has for a very long time been – the usual scenario at the global level, is to be found in the nature of the economic system, i.e., capitalism. Critical realists view capitalism as a complex system or network of structures and mechanisms, which are continuously transformed and, especially, reproduced through the activities of actors. Applying Marxist political economy theory, one can identify the primary social relation in capitalism as that between capital and labour power. In this theoretical perspective, the driving force in capitalism is understood to be capital accumulation, i.e., the process through which investors reinvest profits with a view to make more profits, translating into economic growth at the macro-level (see also Sayer 2009b: 350; Næss 2016: 186). Capitalism is structurally reliant on endless exponential economic growth for its stability. In the rich countries, an annual growth rate of around 3 percent is required if capitalism is to appear healthy and prosperous (Harvey 2010: 27), whereas a considerably lower growth rate is synonymous with crisis, especially if it persists. The growth imperative built into the capitalist system is an important example of a structure. Importantly, there is no universal law guaranteeing a certain growth rate. Growth varies from one year to the next, and there can be periods without growth. Moreover, it varies geographically. For example, in recent times China and India have experienced growth rates dwarfing those found in Europe and the United States. In the more or less open system of capitalism, then, growth is a *tendency*. If, how and to what extent this tendency is actualised is another matter that depends on many other conditions – such as, for instance, technology, the level of demand, the nature of competition, oil prices and wage levels.

Once structures have been identified, a next step in a critical realist inquiry can be to investigate how those structures work and are reproduced or transformed. To this end, it is natural to focus on agency, discourses and other mechanisms. For instance, to understand the nature of capital accumulation, it is relevant to look into the nature of a related mechanism that is essential to the functioning of capitalism, namely competition between companies. Capital accumulation is situated in a context in which companies tend to compete with other companies for profit. Indeed, one can think of competition in terms of pre-existing social relations that potentially exist between companies occupying social positions in a market system – relations that are subsequently, intentionally or unintentionally, reproduced or transformed as enterprises compete (Buch-Hansen 2014a). Competition pushes companies into a survival-of-the-fittest race where only the companies that grow the most and make the most profits survive and prosper in the long run.

Capitalist growth would not exist were it not for human activities. The past decades have witnessed pro-growth inclinations spreading in society (Xue 2016: 84). A broad range of actors are now preoccupied with growth, including the leading trade unions, the major political parties, broad strata of the population and the corporate sector (Nielsen 2011). Seen from the vantage point of trade unions, growth creates (better) jobs and the basis for higher wages. Governments typically go to great lengths to facilitate growth, as growth enables them to generate revenue without increasing taxes and entails other positive outcomes that increase their chances of reelection. And to most people, growth has positive connotations, being associated with more and better employment opportunities, higher wages and more consumption. In many respects, then, growth has become the guiding principle for all dominant actors (Nielsen 2011). It has not always been this way. Prior to World War II, it was mainly companies and investors that were concerned with growth. Trade union movements and the political Left, including the large social democratic parties, were opposed to capitalism. The critique of economic growth emanated not only from the Left but also, for instance, from conservative circles, which regarded growth as a potential threat to traditional values and institutions. In the wake of the war, however, the

> social order was simultaneously individualized and socialized in a way that made ever-increasing consumption the general purpose and thus economic growth the only and ultimate model of development. The values of capitalism, i.e. growth and productivity, were made subjective and universal at the same time. (Nielsen 2015: 208)

Economic growth in the Western world has to no small extent come to be premised on the existence of consumer societies and an associated consumer culture. In these societies, social status, happiness, wellbeing and identity are linked to consumption (Jackson 2009). André Gorz (1923–2007) observed that "the level of energy consumption has become, willy-nilly, a matter of social status. This is clearly the case with transport: the power of one's car is a symbol of wealth" (2018: 101). This is no longer an exclusively Western phenomenon. The environmentally unsustainable consumption norm of the West has increasingly gained ground in other parts of the world, the consequence being that more people than ever before take part in consumption patterns that used to be reserved for small Western elites (Koch 2012; see also Brand and Wissen 2013).

Critical realists hold that human beings have emergent properties making their activities irreducible to particular structures or prevailing discourses/cultures. Consumer culture thus does not dictate how people think; and some

people's values are shaped by altogether different discourses. As Næss (2010: 69) points out, though, "individuals who want to change their lifestyle in a less energy-intensive and climate-adverse direction face many structural and cultural barriers. Low-consumption ideas are countered by advertising and a generally prevailing consumerist culture". He adds that appeals to "individual climate awareness are likely to be of a limited effect as long as material, social and cultural compulsions and incentives continue to push in the opposite direction" (2010: 69; see also Jackson 2009: 87–102). Seen from the perspective of critical realism, it is generally much easier to reproduce social structures than to transform them. One reason is that while structural transformations require profound changes in the behaviour of people, such changes often themselves require other structural transformations. For example, if people immediately stopped flying, hereby bringing about a swift transformation of current transportation structures, it would be great news for the climate. Yet this is unlikely to happen, one reason being that many people have jobs requiring them to travel by air. Structures and cultures in the labour market and elsewhere would thus need to change before enough people change how they travel.

To recapitulate, the (retroductive) question of what social reality is likely to be like for economic growth to continue can be answered as follows: it is a social reality in which the economic system, global capitalism, is structurally reliant on economic growth for its stability, meaning that it cannot altogether stop growing without collapsing. A broad constellation of actors promotes continued growth, believing it to be both necessary and desirable. But of course, this is not the whole story. To nuance the account provided in this section, additional causal mechanisms could be considered. In particular, it is important to recognise that, historically, capitalism has taken a variety of forms. Capitalism is not just capitalism. In recent decades it has predominantly assumed a neoliberal form.

NEOLIBERALISM VS. THE CLIMATE

With the breakthrough of neoliberalism in the 1990s onwards, growth became a universal goal. Neoliberalism is thus an additional cause of the climate crisis alongside capitalism and consumer societies. Neoliberal capitalism broke with the welfare state of the post-World War II period. In Europe and elsewhere, this welfare state came into being as a result of the rise of the labour movement and the social democratic parties. It was underpinned by a class compromise between organised labour and nationally oriented industrial capital. In relation

to growth, the welfare state was Janus-faced, reflecting the ambiguous views on capitalism of the socialist labour movements and parties. On the one hand, the welfare state institutionalised GDP growth as the decisive measure of social progress. At the same time, growth in the post-war decades was historically high and persistent, with average annual growth rates around 5 percent – far above capitalism's historical average. High growth resulted from post-war reconstruction, new production techniques and the introduction of welfare states that promoted mass consumption, invested massively and, in their heyday, experienced full employment. The welfare state and the 'embedded liberal' form of capitalism it formed part of (Harvey 2005: 10–11) was anything but environmentally friendly: high economic growth led to massive increases in CO_2 emissions (Koch 2012).

On the other hand, the welfare state had conflicting objectives. Widespread support for social solidarity resulted in increasing economic equality and less poverty. Moreover, in social democratic circles, growth was not considered an indispensable necessity in the long run. Rather it was seen as a temporary means to eradicate material hardship in the broader population. Once this had been accomplished, growth was to be supplanted by other goals such as democracy, sustainability and more leisure time. Important sources of inspiration were thinkers such as Keynes and Marx (Nielsen 2011: 85–97). The most visible aspects of these post-growth visions were mass democracy, mass movements and a systematic reduction of average work hours. These conflicting objectives of the welfare state intensified and gave rise to deep tensions in the 1970s, eroding support for the welfare state. At this point, capitalism found itself in a deep economic crisis (see, e.g., Streeck 2016: 15–16). For critical realists, crisis periods are of particular interest as they are characterised by a greater degree of social transparency than are 'normal periods'. Appearances can become less deceiving when, say, deep social conflict becomes more visible. In the 1970s, for instance, an outburst of workplace resistance and wildcat strikes made conflicting interests regarding working conditions more transparent.

In the course of the 1980s, the Left lost its momentum, and advocates of neoliberal ideas increasingly took over the political and economic agendas. Neoliberal ideas were gradually and unevenly institutionalised while the crisis was pushed into the background alongside the tense social conflicts. From a critical realist perspective, this rise of neoliberal ideas can only be properly explained with reference to agency-structure interplays. The globalisation of capitalism was a crucial structural development as it undermined the ability of embedded liberal capitalism to facilitate accumulation and growth. Yet neoliberalism would not have become influential without the powerful actors who embraced and promoted it. Various studies have documented the crucial role

played by a transnational corporate elite or class in making neoliberal ideas hegemonic (e.g., van Apeldoorn 2002; Carroll 2010).

As neoliberal ideas became institutionalised and hegemonic, a radical break with the aforementioned duality of the welfare state and the inspiration from Marx and Keynes took place. Under neoliberal capitalism, the welfare state, far from being abandoned, was recalibrated and came to assume a new form, described by some under the label of the 'competition state' (Cerny 1997). In the neoliberal era, the growth-inducing aspects of the welfare state were preserved, as was the belief that a large state is conducive to capitalism. Yet all elements of the welfare state pointing in the direction of a post-growth society were eradicated, as neoliberalism was oriented towards endless accumulation and growth. To accomplish this goal, a 'business-friendly' climate was promoted, manifesting itself in greater inequality, marketisation, deregulation of financial markets, privatisation of public companies and increased labour supply brought about via cuts in social transfers such as unemployment benefits and public pensions. Under the hegemony of neoliberal ideas, the goal to reduce work time disappeared from the political agenda in the 1990s, and later it was altogether forgotten. Meanwhile, the levels of work intensity and consumption continuously increase.

Another manifestation of the hegemony of neoliberal ideas was that environmental problems and climate change were turned into matters of individual consumption choices, cost-benefit analyses and market-based solutions. A case in point was the creation of carbon trading schemes. Rooted in mainstream economics, this neoliberal policy instrument involves turning the climate crisis into an investment opportunity by creating markets in which 'emissions certificates' are traded, and speculative profits can be made. Establishing "private property rights to contaminate the atmosphere", the system creates business opportunities "for CO_2 brokers, tradesmen and bankers, including those representing major finance companies and hedge funds" (Koch 2012: 160, 161). Yet as an instrument to reduce emissions, carbon trading has proved utterly inadequate (2012: 185). Another market-based and individualistic approach to reduce emissions that has proven to be a mirage is so-called CO_2 offsetting, where consumption harmful to the climate is to be compensated by additional consumption meant to offset emissions. As an example, if you buy an airplane ticket, you will in many cases be given the opportunity to compensate for the emissions of the air trip by additionally buying into a project that either reduces CO_2 emissions by, for instance, employing more solar panels, or that sucks CO_2 out of the atmosphere by, for instance, planting more trees. Unfortunately, such offsets are not only altogether insufficient in terms of reducing aviation emissions; they also have adverse effects in the global South where offsetting projects often involve land grabbing and lead to local conflicts (Smith 2019).

In the past two decades, the neoliberal discourse has increasingly been countered by advocates of another discourse: a 'climate narrative' that calls for fundamental social and economic change based on climate science findings and forecasts. The antagonistic relationship between the two discourses is intensified by their considerable resemblances in some respects (Nielsen 2011: 296–299). Both the neoliberal discourse and the climate narrative emanate from scientific traditions and relate to contemporary society, not least the economic sphere and the issue of growth. Both discourses are based on long-term models and forecasts that give rise to demands for swift action so as to steer clear of disastrous future scenarios. To those viewing the world through the neoliberal discourse, it is the prospect of low growth, which is a persistent cause for concern and political alarmism, whereas the main concern for those adhering to the climate narrative is the lack of action to bring down CO_2 emissions. Both discourses are also universal in the sense that they encompass all levels, from the individual to the global.

Yet in other respects, the two discourses differ fundamentally. Grounded in positivist economic science, the neoliberal discourse is based on reductionism. This does not apply to the climate narrative, which takes a holistic perspective and has sustainability as a basic value. Although both discourses have a scientific frame of reference, there is also a radical difference here, in that the neoliberal discourse is grounded in social science, whereas the climate narrative is primarily grounded in natural science. Mainstream economists render 'scientific' the values of neoliberalism, turning them into an indisputable framework for all life and behaviour, without recognising their natural, human or social boundaries. The climate narrative, by contrast, conveys basic scientific knowledge while remaining open and inclusive. That is, it is compatible with numerous forms of social relationships and ways of living – as long as they are sustainable.

Core concept: Sustainability

Sustainability is an ethical project advancing the idea that human production, consumption and social life should respect both ecological limits and principles of social justice such as equality and solidarity. As an interdisciplinary and holistic concept, sustainability links political economy, human needs and the environment in the light of both present and future society. On this view, the principles of care, equality and solidarity are thus to be respected globally and for all generations (see Parker 2007).

According to critical realism, the open nature of the systems of the world means that they are devoid of invariant regularities. One should thus be sceptical of forecasts, not least when they take the form of precise quantitative predictions. However, there are different degrees of openness, and crucial differences pertain to nature and society. The strata of nature are regarded by critical realists to be more basic than those of the social world, and the structures of nature are seen as more firmly anchored than those of society. Critical realists thus regard the forecasts made by climate scientists to be based on more solid knowledge and to have greater scientific legitimacy than those made by economists. There are compelling reasons to hold this view. Tests of the performance of climate models published over the past five decades show that their projections of changes in future global mean surface temperatures turned out to be remarkably accurate (Hausfather et al. 2020). Conversely, forecasts made on the basis of the models of mainstream economics hardly ever turn out to be in line with reality, even when their advocates only make predictions a few months into the future. Mainstream economists (like economists more generally) are, for example unable to predict economic crises, large or small. To illustrate, up until its culmination in 2008, the financial crisis came as a complete surprise to mainstream economists. As there is no way of knowing exactly when a crisis hits, the forecasts of economists should thus always be met with scepticism. A further reason to be sceptical of economic predictions is noted by Gorz (2018: 106): "Economic forecasting […] reflects the tacit political choice to perpetuate the current system. This has nothing to do with objectivity or scientific rigour".

To recapitulate, the discourses of neoliberalism and the climate narrative exhibit clear family resemblances. Yet they also display essential differences, which establish them as opposites in contemporary society. Although the climate narrative has in this century been elevated to the same league as the neoliberal discourse and continues to gain ground, the neoliberal discourse still prevails. For example, in 2018, the so-called Nobel Prize in economics was awarded to William Nordhaus, who does research on climate change and economics. Nordhaus is famous (or infamous) for having argued that, based on 'economic rationality', keeping global heating at 3.5 °C degrees above the pre-industrial level is 'optimal' (as mentioned above, the IPCC recommends not exceeding 1.5 °C degrees). Upon learning that he had been awarded the prize, Nordhaus told his students not to "let anyone distract you from the work at hand, which is economic growth" (Hickel 2018). The neoliberal discourse continues to dominate when crucial decisions are made. Not even the biggest economic and political crisis since the Great Depression of the 1930s has decisively weakened the hegemony of the neoliberal discourse. At least not yet.

CRISES IN THE TWENTY-FIRST CENTURY

In 2007 and 2008, the Western world witnessed a series of spectacular bankruptcies followed by political bailouts centred on the financial sector. Most notable was the bankruptcy of Lehman Brothers in the United States, which sent shockwaves through the global financial system. A complete meltdown was only avoided because policy-makers across the world acted swiftly and strongly to protect the financial markets. While they largely succeeded in recreating trust and normality in financial relations, the crisis spread to the real economy, which experienced negative growth, rapidly increasing unemployment rates and massive government deficits. The financial crisis was a symptom of an intensifying crisis of the neoliberal form of capitalism, manifesting itself in its increasing difficulties in delivering GDP growth, the main indicator of progress. During the crisis of the 1970s, growth levels declined from the historically high levels of the post-war decades. Since then, there has been a deep *tendency* for declining growth rates in the most advanced industrialised countries of the world (Nielsen 2015: 212–214). There are many reasons for these declining growth rates, among which are environmental, individual and social limits to growth that increase over time, not least because of the aforementioned fact that exponential growth requires ever more growth in absolute terms. That the annual global growth rate is still at the level of 2–3 percent owes much to the high growth rates of some of the developing and emerging economies. If we look at aggregate growth figures decade by decade in the OECD countries, the picture shown in Figure 6.3 emerges.

GDP growth has declined every decade from the 1960s to the 2000s, and the financial crisis resulted in an average annual growth rate at 1 percent in the first decade of the new century. Throughout the 2000s, annual growth was thus around one fourth of the growth rate of the 1960s and far below the structural level required for a 'healthy and prosperous' capitalism. Importantly, seen from the vantage point of critical realism, we are dealing here with a tendency as opposed to a universal law. As such, it is possible that growth rates increase again, and indeed, annual growth in the OECD is somewhat higher in the 2010–2018 period than it was in the previous decade. Still, it has not reached the level of the 1990s, let alone that of previous decades. Slightly increasing growth rates in one decade cannot be taken as evidence that the long-run tendency of declining growth has vanished. The tendency works at the deep domain in conjunction with countless other mechanisms, some of which are countervailing. As such, the tendency is not always actualised on the empirical domain. It remains to be seen whether the slightly higher growth rates of the past

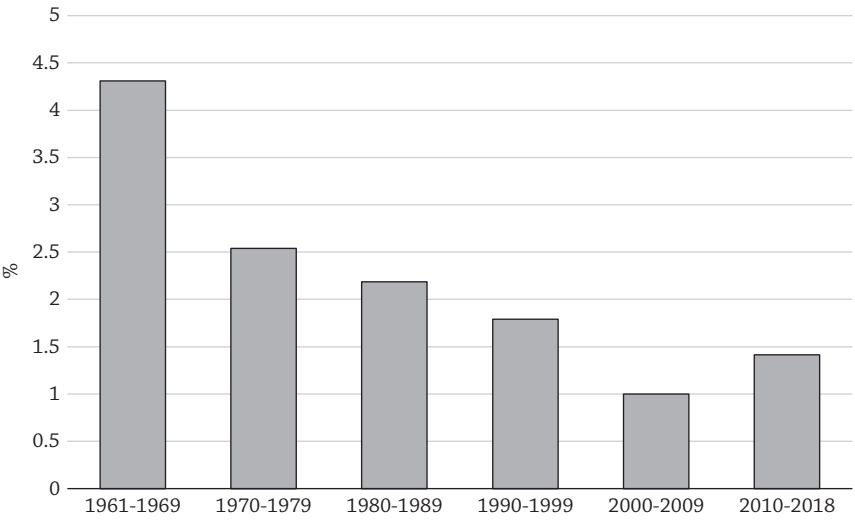

Figure 6.3 Average GDP growth per capita in OECD countries
Data source: https://data.worldbank.org/

decade turn out to be just a ripple on the surface in the troubled waters of neoliberal decline. It seems likely that they will. However, in the unlikely event that high and persistent growth rates suddenly materialise in the OECD, it would be necessary – as a critical realist – to re-evaluate current theories and analyses of the tendency.

GREEN GROWTH OR POST-CAPITALISM?

What are the current main political projects relating to the climate crisis? How convincing are the various projects, and to what extent do each of them currently shape political action? To address such questions from a critical realist perspective, one would need to conduct a thorough analysis of the existing political landscape, drawing dynamically on both substantive theory and empirical sources. Aside from identifying the projects (discourses), one also needs to consider what constellation of agents supports them and how conducive the structural context is to their realisation. Indeed, it is essential that analyses of

current affairs do not solely relate in a general and abstract manner to conditions on the deep domain; they should also relate – and be adjusted – to concrete phenomena and processes on the actual domain. In this spirit, the present section tentatively identifies and assesses three overall projects in the contemporary political landscape, which provide competing visions of how to respond to the climate crisis. One project incorporates the aforementioned neoliberal discourse while disregarding the climate narrative; one project seeks to fuse the two discourses; and one project breaks with neoliberalism while embedding the climate narrative in a post-capitalist vision of society.

The first project we label the *status quo project* because its aim is to continue down the neoliberal path. This project has the pursuit of capital accumulation and economic growth as its overriding goals. Consequently, it turns a blind eye to increasing CO_2 emissions and ensuing climate changes. In its most extreme guise, this project builds on climate change scepticism or denial. Proponents of this version of the project, for instance, include conservative think tanks and right-wing policy-makers (including the current president of the United States, Donald Trump). But there is also a mainstream version of this project which, while acknowledging the findings of climate science and some of the arguments made by climate activists, continues to give top priority to accumulation, growth, marketisation, consumption and individual choice. This version of the project has many proponents among policy-makers and in the corporate world. As such, it, to no small extent, shapes political (in)action. That is, far from instigating structural change (Sayer 2016b: 334–335), the project aids the reproduction of the status quo: continued economic growth and increased CO_2 emissions, resulting in escalated global heating with disastrous consequences, not least for the world's poorest and most vulnerable people. Overall, then, this project offers no hope of solving the climate crisis.

The second project we call the *green growth project*, but it could just as well be labelled the 'green neoliberalism' or 'green capitalism' project. Here the neoliberal discourse and the climate narrative are forged together and become a political narrative about continued growth combined with improvements for the climate. This political project is based on the notion that *in order* to deal properly with the climate crisis, high growth rates are needed. At the same time, the climate emergency is regarded as a driver of growth. The vision is an economic model in which a large share of economic growth is based on climate-friendly forms of production and consumption. Advocates of the green growth project have considerable faith in the capacity of new technologies and market-based solutions to address the climate crisis. The project enjoys considerable momentum at present. It is supported by large parts of the political spectrum, companies that have an interest in de-carbonisation and visionary investors who see

a considerable growth potential in a 'green transition' of the economic system. Moreover, it is promoted by international organisations such as the OECD, the World Bank and the United Nations Environment Program (Hickel and Kallis 2019).

Core concept: Decoupling

Decoupling is a concept that relates economic activity to environmental impact. For decoupling to occur, economic activity has to result in a reduction of environmental impact, such as the emissions of CO_2. Decoupling thus occurs, for instance, when a car is substituted by a more energy-efficient car or when there is increasing use of renewable energy sources. In a dynamic macro perspective, it is important to differentiate between two forms of decoupling. *Relative decoupling* occurs when GDP grows while CO_2 emissions grow at a slower pace. This is what we have experienced at the global level in the preceding decades, meaning that decoupling has occurred but that growth in GDP has outweighed this effect (Hickel and Kallis 2019; see also Figure 6.2). *Absolute decoupling*, on the other hand, entails that GDP grows while CO_2-emissions fall. If the green growth project is to deliver on its promises, absolute decoupling is needed.

How convincing is the solution to the climate crisis offered by the green growth project? Certainly, it cannot be ignored that the project is based on the paradoxical assumption that the main cause of the crisis, economic growth, is crucial to the solution of the very same crisis. While this should clearly be a cause for concern, taking a critical realist perspective it does need to be recognised that we cannot conclude what the future will be like based on knowledge of the past. As mentioned, capitalism is an open system and its expansion has, historically speaking, often been premised on turning critique and opposition into dynamos for growth. The welfare state is the best example of this. As critical realists moreover consider the connection between growth and emissions to be a demi-regularity, as opposed to a universal event regularity, it cannot be altogether ruled out that the current critique of political inaction alongside the introduction of new sustainable technologies and market-based solutions *could* result in the emergence of a system based on 'green growth' (see also Sayer 2009b).

This said, a critical realist would insist that we take our existing knowledge of capitalism and of the strong link between economic growth and the climate crisis extremely seriously. This knowledge does not suggest that a climate- and ecosystem-friendly capitalism is a possibility (Bhaskar 2012: 21; Høyer and Næss 2012; Sayer 2016b: 328–329). While it is by no means impossible that growth can continue for a while and indeed be stimulated by efforts to reduce CO_2 emissions, it does not follow that emissions can in this way be brought down to the level required if a catastrophic destabilisation of the climate is to be avoided. Here it is worth underscoring that a critical realist analysis ascribes far more importance to *past and present reality* than to lofty goals and plans, especially when the latter concern a *distant future*. Whereas the future can freely be imagined, constructed and manipulated, past and present reality is a more tangible object of knowledge. On this view, it cannot be ignored that growth has so far been, and continues to be, overwhelmingly 'black', in spite of investments in renewable energy forms and a gradual transition in the direction of more sustainable consumption in some areas.

Critical realism in action: Sustainable housing

In *Economic Growth and Sustainable Housing*, Jin Xue (2014) challenges the widely held notion that economic growth can be decoupled from its negative environmental impact. She advances a critical realist perspective through a study of the housing sector, a sector that consumes more material, energy and land than any other sector of the economy. Using the approach of 'backcasting', an approach argued to have important commonalities with retroduction, Xue looks at the present from the vantage point of a desired future, in order to identify current obstacles to and opportunities for achieving that future: if a sustainable society is desired by 2050, what mechanisms and conditions are needed for it to materialise? Case studies are provided of two metropolitan areas, namely Hangzhou (China) and Copenhagen (Denmark), both of which have pursued environmental policies. Overall, the empirical findings suggest a major inconsistency between the theory and reality of decoupling. Using the backcasting approach, Xue shows that currently the prospects of achieving full decoupling between housing sector growth and its environmental impacts by 2050 are bleak.

It is reality that counts – also as regards the climate – and it is anything but a foregone conclusion that it is possible to break the connection between growth and emissions (Jackson 2009: 67–86). So far, it has not at all been the case. Ripple et al. (2019: 1–2) note that despite "40 years of global climate negotiations, with few exceptions, we have generally conducted business as usual and largely failed to address" the climate emergency. Likewise, Christensen and Olhoff (2019: 3) refer to the preceding decade as a 'lost decade', concluding that the current level of global greenhouse gas emissions "is by now almost exactly at the level projected for 2020 under the business-as-usual, or no-policy scenarios […], which are based on the assumption that no new climate policies are put into place from 2005 onwards. In other words, essentially there has been no real change in the global emissions pathway in the last decade".

Critical realism in action: Unsustainable growth

The conception of sustainable development is most often associated with the so-called Brundtland Report on *Our Common Future* (Brundtland et al. 1987). In this report, economic growth is held to be a prerequisite for sustainable development. Arguing against this idea, critical realist Petter Næss (2006) suggests that the goals of economic growth and sustainable development are mutually exclusive. Strategies for making growth greener, such as eco-efficiency, dematerialisation, recycling and decoupling can lessen the environmental impacts of economic activity, but endless economic growth is simply unsustainable. According to Næss, then, exponential economic growth fuelled by the capitalist economy rules out sustainable development. Long-term sustainable development requires a replacement of the capitalist economy with a new economic system that is centred around ecology and equality.

Overall, then, there are very good reasons to be sceptical of the narratives of 'green growth', 'climate-friendly capitalism' and the like. In most cases, such narratives reek of wishful thinking. Even worse, they can serve to conceal the real nature of the climate crisis and what it would take to solve it. Unfortunately, the climate collapse we are moving towards does not disappear with the invention and dissemination of new discourses, especially not if these discourses distort the nature and causes of the climate changes that are actually occurring

(Spash 2016). Critical realists *do* take an interest in discourses. But again: objective reality – the reality of economic growth, CO_2 emissions and an escalating climate crisis – is what counts the most. This reality differs fundamentally from – and can be in direct conflict with – discourses, narratives, awareness and opinions. In relation to the climate crisis, then, huge discrepancies exist between talk and action, discourse and reality. Studying issues related to the climate crisis and neoliberalism from a critical realist perspective involves trying to cut through the discursive noise so as to gain (fallible) knowledge of what reality is actually like. Indeed, just as there are discourses distorting the nature of the climate crisis, so 'actually existing neoliberalism' in many respects differs from the discourses of neoliberalism (Bhaskar 2002a: 194; Harvey 2010: 10; Peck et al. 2018). A critical realist analysis showing a discrepancy between, say, the way in which the green growth project suggests the climate crisis can be solved *and* extant knowledge of how economic growth and emissions are related, could result in an *explanatory critique*. That is, a critique of the ideas underpinning the green growth project as well as of the actors and institutions promoting them.

The third project we will mention here is the post-capitalist *degrowth project*. Rejecting 'status quo' and 'green growth' solutions, this project sees the climate emergency as a threat that cannot be dealt with unless the growth imperative of capitalism is transcended (e.g., Kallis 2018; see also Jessop 2012; Sayer 2017).

Core concept: Degrowth

Degrowth is a scientific and ethical project that brings into focus the environmental and social downsides of economic growth. Whereas proponents of economic growth consider it to be inherently good and desirable as it makes people richer and happier, proponents of degrowth consider growth in rich societies to be the primary cause of a variety of natural, social and individual ills, such as the climate crisis, inequality, stress and burnouts. The politics of growth is furthermore perceived to bring about mounting economic imbalances, such as a debt explosion and financial bubbles, paving the way for a deepening crisis. Proponents of degrowth are not against growth per se: for instance, they acknowledge the need for poor countries to develop economically and are in favour of growth in the renewable energy sector. Still, overall, they consider the growth imperative to be fundamentally misguided. In the rich countries, in particular, the pursuit of growth at all costs is unsustainable. Degrowth implies that material wealth should be balanced by other values, such as sustainability, democracy, wellbeing and autonomy.

The advocates of the degrowth project – grassroots, activists, small fractions of left-wing parties and unions as well as a fast-growing number of academics and other citizens – call for democratic transitions towards a smaller, non-growing economic system that operates within ecological boundaries and that is also socially sustainable (Buch-Hansen 2018). Work sharing, minimum and maximum incomes, localised production, social enterprises, eco-communities, community currencies, debt auditing, time-banks and job guarantees are some of the initiatives that are held to potentially be able to play important parts in such a system (D'Alisa et al. 2015). Of the three projects, this is the one most critical realists are likely to agree with, the reason being that it takes reality seriously (see, e.g., Bhaskar 2016: 207; Archer 2019). It neither turns a blind eye to the climate crisis (status quo project) nor does it disregard knowledge of how capitalism and economic growth have historically impacted the climate (green growth project). Instead, it takes such knowledge as well as the findings and forecasts of climate science seriously and reconciles them with an ethics of sustainability (see also Ripple et al. 2019: 4).

Critical realism in action: Degrowth as dissent

Even though contemporary capitalist societies find themselves in a deep multidimensional crisis, there appears to be very little dissent if measured by the conventional standards of critical theory. Indeed, dissent would appear to have been replaced by consent. Critical realist Peter Nielsen (2015) sets out to explore this apparent paradox, suggesting that perhaps it is time to rethink the notion of dissent in advanced capitalist societies permeated by neoliberal policies, consumerism and media culture. While there is little dissent in traditional form, there is widespread dissent in the form of 'degrowth', manifesting itself primarily in the long-run tendency for growth rates to decline. Nielsen sees degrowth not primarily as a political project promoted by social forces but as a structural, diffuse and unintended phenomenon that emanates from a myriad of uncoordinated actions. Degrowth undermines, delegitimises and corrupts the institutions, identities and performance of advanced capitalism.

Leaving aside the three projects, what would it take, seen from a critical realist perspective, to bring about the changes required to tackle the climate crisis? Undoubtedly, it would take new ideas and awareness-raising, but above all it would take actors working collectively and persistently for structural changes (see, e.g., Costanza 2010). The question is whether such collective action is currently taking place. Certainly, many positive developments can be observed. Massive strikes and marches take place globally with a view to put policy-makers under pressure to take real climate action. Scientists produce declarations and initiate petitions to intensify this pressure. Environmental organisations and political parties with green agendas enjoy a considerable momentum. And many people in the rich countries of the world feel guilty about – and seek to make changes in – their unsustainable lifestyles. For instance, there is an observable increase in the sale of ecological and vegetarian food products as well as of electric vehicles.

While acknowledging the potential importance of these developments, a critical realist analysis would seek to place them in a larger perspective. That is, the developments would be viewed in relation to the type of behavioural change that is in all likelihood needed if the climate catastrophe is to be avoided, namely *massive changes* in the *everyday lives* of the *broad population* in the rich countries. Such changes relate to diets, travelling, housing, recycling, work and consumption. On this view, signing a petition or participating in a demonstration solves nothing if it supplants such actual changes (Nielsen 2011: 175–178), and changes in one area do not help much in the absence of changes in another. A vegan meal can be climate-friendly; but not so much if it is consumed aboard an aircraft transporting you to a distant holiday destination.

To recapitulate, we live in a time of crisis and upheaval. It is a time in which there is a greater degree of openness and unpredictability than in more 'normal' phases. According to critical realists, this entails that the possibilities of obtaining knowledge and bringing about structural social change are currently better than they were towards the end of the twentieth century when global capitalism and the neoliberal discourse were less contested. Critical realism has an important role to play in this context.

Summary

- Critical realism can underpin climate science and legitimise the recommendations by the IPCC, whereas positivism and postmodernism cannot. According to critical realists, climate science should be an interdisciplinary endeavour with an ethical dimension.
- The nature of the economic system and a rampant consumer culture is a major cause of the climate crisis. Capitalism is structurally dependent on exponential economic growth, the result being exponential growth in CO_2 emissions as well.
- Neoliberalism is in opposition to the climate narrative. The former is based on mainstream economics and elevates economic growth to the level of a universal goal, whereas the latter is based on climate science and aims for sustainability.
- Since the financial crisis of 2008, neoliberalism has been in crisis. Since its inception, neoliberalism has been accompanied by declining growth rates, and currently, the growth rates are far below the structural level required for a 'healthy and prosperous' capitalism.
- The 'green growth' vision implies that economic growth is needed if the climate crisis is to be solved. However, there is little to suggest that it is possible to break the connection between growth and CO_2 emissions. This inconsistency calls for an explanatory critique of the 'green growth' vision and the actors and institutions promoting it.

7 Discourses and (De)constructions

Since the publication of Jean-Francois Lyotard's (1924–1998) *The Postmodern Condition* in 1979 and Jean Baudrillard's (1929–2007) *Simulacra and Simulations* in 1981, postmodernism has played a significant role in the social sciences. Postmodernism is a concept that has different meanings in different contexts, yet inevitably it refers to something that diverges from modernism. Modernism entailed a strong faith in reason, enlightenment and scientific and technological progress as vehicles of universal human emancipation. Lyotard (2001: xxiv) defines *postmodernism* as an incredulity towards such 'metanarratives' about universal emancipation, reason and progress, whereas Baudrillard (1994: 160) associates postmodernism with "the immense process of the destruction of meaning". In postmodernism, then, the ideals of modernity give way to disillusion and critique of reason. Moreover, the social world comes to be regarded as fragmented, contingent, without depth and devoid of history (see also Harvey 1990; Jameson 1991).

In this chapter, postmodernism is dealt with in relation to the philosophy of science and critical realism. Both postmodernism and critical realism constitute alternatives to modernism, and the relations between these two alternatives are multifaceted. Still, critical realism differs from postmodernism in important ways. We focus on Baudrillard, Lyotard and other French philosophers associated with postmodernism. Moreover, we relate to the seminal postmodernist discourse theory of Laclau and Mouffe and touch upon social constructionism. On a terminological note, we use the label of 'postmodernism' throughout, leaving aside the often-complex question of whether specific works would fit better into related categories such as that of 'poststructuralism'.

Learning objectives

- Understand how the form of realism underpinning postmodernism differs from that embraced by critical realism
- Grasp the difference between how postmodernists and critical realists view knowledge
- Apprehend how the postmodernist perspective on agency and structure differs from that of critical realism
- Gain insights into how critical realism is situated in relation to social constructionism
- Recognise what role postmodernism plays in contemporary social science
- Comprehend the difference between how postmodernists and critical realists approach discourse and culture

IDEALISM(S) AND REALISM(S)

Does postmodernism entail a comeback to idealism, nowadays also referred to as 'non-realism', 'irrealism' and 'anti-realism'? The short answer is no.

Core concept: Idealism

As a philosophical position, idealism entails the view that reality does not exist independently of our perceptions and discourses about it. Idealism is opposed to realism.

Let us begin with Baudrillard, perhaps the postmodern philosopher who has dealt most extensively with realism in his work. In his view, the transition to postmodernity involves that representations of 'the real' are increasingly replaced with simulations in 'the hyperreal'. He uses Disneyland near Los Angeles to illustrate this point:

> Disneyland is represented as imaginary in order to make us believe that the rest is real, whereas all of Los Angeles and the America that surrounds it are no longer real, but belongs to the hyperreal order and to the order of simulation. It is no longer a question of a false representation of reality (ideology) but of concealing the fact that the real is no longer real (Baudrillard 1994: 12–13).

This and other statements earned Baudrillard a reputation for being an idealist. As a 'hyperrealist' Baudrillard does not, however, subscribe to idealism. As he sees it, the transition to hyperreality does not mean less reality, it rather means the opposite: "there will always be more reality […], its spreading like an animal species whose natural predators have been eliminated" (Baudrillard 2008: 17). Far from being an idealist, Baudrillard is if anyone a philosopher who has been almost obsessed with studying the historical vicissitudes and current status of reality (Baudrillard 1994: 6 ff., 2005: 22–23, 2008: 47–48). But he has studied it in a way that differs greatly from how critical realists approach the world. Baudrillard would say that critical realism is a philosophy suitable for yesterday's world, but not the world of today. Or would he? Late in his life, having kept silent on the matter for decades in his extensive and radical postmodernist oeuvre, Baudrillard admitted that a "whole area of social functioning still corresponds to […] a 'realist' sociology […], and we operate in large measure in this register of the 'real'" (2001: 20). He even revealed that his thinking is first and foremost intended as a provocation and that perhaps one has "to accept two levels of thought: a causal, rational thought, corresponding to the Newtonian world in which we live; and another, much more radical level of thought" (2003: 87).

Like Baudrillard, the philosopher Jacques Derrida (1930–2004) has often been accused of being an idealist. A reason for this is his famous "il n'y a pas de hors-texte" remark, which was (mis)translated into "there is nothing outside of the text". Derrida's point was, however, not to suggest that there is no reality outside books, articles and the like. His concept of 'text' is highly inclusive in that it "implies all the structures called 'real,' 'economic,' 'historical,' socio-institutional, in short, all possible referents" (Derrida 1978: 148). It thus turns out that what may at first have looked like a purely idealist position is, in fact, a form of realism (see also Wight 2004).

As for Foucault, his early works were considerably more realist than were his later works. In an early book, he avoids reducing everything to discourse while acknowledging the existence of underlying structures (see Foucault 1972). In later works, where the so-called method of genealogy takes centre stage, however, the notion of structures gradually disappears (Joseph 2004). Foucault and

Derrida can be said to be realists, but none of them ascribe much importance to ontology. They have little to say about the reality existing outside of discourses – except that it is there (Joseph and Roberts 2005). Much, however, depends on readings and interpretations. It is indeed possible to read Foucault's work as being (partly) compatible with critical realism (Marsden 1999; Elder-Vass 2012a; Hardy 2019) or building on his analyses in a critical realist context. In particular, Foucault's (2008) path-breaking analyses of neoliberalism and homo economicus have served as a source of inspiration for critical realists (Nielsen 2011: 148–153; Jessop and Scherrer 2015: 8).

In Laclau and Mouffe's discourse theory, discourse is said to be coextensive with the social. A discourse is defined as "the structured totality resulting from the articulatory practice" (Laclau and Mouffe 1985: 105), the latter being understood as practices that establish relations between elements, hereby modifying their identity. While language hereby comes to play a key role in discourse theory, Laclau and Mouffe (1985: 107–108) maintain that discourses are also material: "by discourse we should not understand simply speech and writing, i.e. there is nothing specifically linguistic about it. […] it is a combination of linguistic elements and the action in which these elements are embedded, and the resulting totality of words and actions" (Laclau 2012: 80). Unlike, for example, Foucault (1972), Laclau and Mouffe deny the possibility that objects "could constitute themselves as objects outside any discursive condition of emergence" (1985: 108). Everything thus becomes discursive. This account of the discursive builds on an interpretation of what Ludwig Wittgenstein (1889–1951) called 'language games', a heritage that Lyotard's (2001: 9–11) analysis of postmodernity also draws on to a large extent.

According to Laclau and Mouffe, the suggestion that everything is discursive is not inconsistent with realism: "The fact that every object is constituted as an object of discourse has *nothing to do* with whether there is a world external to thought, or with the realism/idealism opposition" (Laclau and Mouffe 1985: 108). What this entails becomes a bit clearer when Laclau and Mouffe's distinction between 'being' and 'existence' is brought into the equation. Objects that are discursively articulated are said to 'be', whereas objects outside of discourses merely 'exist' (Laclau and Mouffe 1987: 85). In other words, it is accepted that something exists outside discourses, even though this something has no 'being'. As such, it is justified when discourse theorists insist on being realists. Laclau (2012: 81), in fact, underscores that "the main philosophical approach" that discourse theory "is opposed to is idealism". Just as claims that Baudrillard, Derrida and Lyotard are idealists are typically based on misunderstandings of what is meant by 'simulations', 'texts' and 'language games', charges that

discourse theory is idealist are often based on misunderstandings of what its concept of 'discourse' includes.

Discourse theory is consistent with realism, but it is a particular form of realism. By equating discourse and being, discourse theory "reduces being to discursive description/re-description and renders existence meaningless" (Joseph 2002: 112). Existence (and the thesis of realism) thus becomes an abstraction, which is negligible or downright unimportant in practice. Thus, Jessop hits the nail on the head when he suggests that discourse theorists advocate an *empty* realism:

> Laclau and Mouffe are empty realists. They affirm that there is a real world external to thought but the entities [...] in that world are inaccessible abstractions; indeed they lack determination until discursively constituted into so many beings [...]. They claim that discursive articulation is the primary ontological level of the constitution of the real (Jessop 1990: 294).

This thinking applies to, amongst other things, climate change. Laclau (2012: 94) underscores that he is "not saying that global warming did not exist independently of the discourse which called it global warming, because that would be absurd". But neither Laclau and Mouffe nor other postmodernist discourse theorists have anything to say about the climate crisis aside from how it is being discursively articulated. Ontologically speaking, then, the climate crisis as well as neoliberalism are regarded by such theorists as empty shells, or in their own terminology 'empty signifiers'.

The contributions made by postmodernists to the debates regarding realism serve to reinforce Bhaskar's previously mentioned dictum that the important question is not whether to be a realist but what sort of realist to be. Postmodernists advocate an empty realism. Critical realists are ontological realists as regards both nature and society while recognising that there are major differences between natural and social reality. Whereas the realism of postmodernism is empty and flat, critical realism's realism is rich and deep. The critical realist worldview thus includes not only discourses, language games and the like but also non-discursive elements such as objective social structures. Both critical realists and postmodernists regard the future as open, but postmodernists tend to consider the social world *more* ambiguous and the future *more* open. The type of realist position one adopts has major implications for how one studies social reality. Like positivists, postmodernists reject "the idea that the world as we see it is the result of hidden structures" (Burr 2015: 15). Consequently, they content themselves with studying the surface level of social reality (Baudrillard 1998: 191–192, Laclau and Mouffe 1985: 98) and reject the

critical realist view that the social sciences should seek to *get beyond* discourses and appearances to generate knowledge of deep social structures. It is important, then, to distinguish the critical realist form of realism from other realisms, including the postmodernist ones. Sometimes this can be challenging. More generally, it is not always easy to orient oneself in the jungle of realisms, and it doesn't make things less complicated that some critical realists refer to their own position simply as 'realism' (e.g., Sayer 2000, 2010; Maxwell 2012; Emmel et al. 2018) even though critical realism is a specific form of realism.

KNOWLEDGE AND POWER

Just as postmodernism is often (too quickly) equated with idealism, it is also frequently associated with relativism. Such a connection is often drawn because postmodernists consider truth to be relative to discourse. Or they altogether write off reality and truth, as when Baudrillard suggests, in one of his provocative statements, that "[t]he closer we supposedly approach the real or the truth, the further we draw away from them both, since neither one or the other exists" (2004: 49).

Here postmodernists are in many cases inspired by a specific reading of Thomas S. Kuhn's (1922–1996) philosophy of science classic, *The Structure of Scientific Revolutions* (1996). According to this reading, it is only possible to study reality from within a paradigm, which supplies one with a particular worldview, specific criteria of truth and a distinct language. As a result, theories belonging to different paradigms become 'incommensurable', meaning that no common yardstick exists in relation to which their competing truth claims can be evaluated. For instance, one could argue that positivism and postmodernism are incommensurable paradigms.

Although postmodernists typically speak of discourses rather than paradigms, this is by and large the position they advocate. Discourse theorists insist that "all truth is relative to a discursive formation" (Laclau 1990: 196; see also Howarth 1995: 128–129) and Foucault writes as follows:

> Each society has its régime of truth, its 'general politics' of truth: that is, the types of discourse which it accepts and makes function as true; the mechanisms and instances which enable one to distinguish true and false statements (Foucault 1980: 131).

According to Foucault (1980: 133), such 'régimes of truth' – and thus the 'truth' they produce – "is linked in a circular relation with systems of power which produce and sustain it, and to effects of power which it induces and which extend it". One also encounters the view that power and truth are intimately related in the works of other postmodernists. Lyotard, for example, deals extensively with this matter in *The Postmodern Condition*. Here he observes that

> When we examine the current status of scientific knowledge [...] it appears [...] that knowledge and power are simply two sides of the same question: who decides what knowledge is and who knows what needs to be decided? (2001: 8–9).

As it is moreover the case, according to Lyotard, that the state and capitalism are increasingly interconnected in postmodernity, power above all resides with those who have money:

> No money, no proof – and that means no verification of statements and no truth. The games of scientific language becomes the games of the rich, in which whoever is the wealthiest has the best chance of being right. An equation between wealth, efficiency, and truth is then established. (2001: 45).

Critical realists have no problem acknowledging that science is not a social activity driven exclusively by a pure and innocent desire to obtain a better understanding of the world we inhabit. Indeed, scientific activities unfold in cultural, institutional, political and economic contexts as a result of which the production of knowledge is heavily influenced by all sorts of conflicting interests and power relations. Yet unlike postmodernists, critical realists do not believe that knowledge is altogether discourse-dependent, let alone that money or powerful interests can ever dictate the truth.

Critical realism in action: Power

In *Power – A Radical View*, Stephen Lukes (2005) develops an account of power that is compatible with critical realism. He provides an immanent critique of both positivist and postmodernist accounts. Whereas positivists identify power with observable behaviour, Lukes argues that power is at its most effective when least observable. An all-important dimension

of power is the shaping of consciousness, making people accept their role in the existing order of things because they do not recognise their real interests. Hereby potential conflicts are rendered latent. On the other hand, Lukes breaks with postmodernist perspectives, such as that of Foucault, in which power is considered to be everywhere and thus inescapable. In line with critical realism, Lukes maintains that freedom and reasoning independent of power is both possible and necessary.

Seen from the vantage point of critical realism, whether statements such as "all Muslims are criminals", "neoliberal employment policies cause stress and depressions" or "the climate crisis is related to the pursuit of economic growth" are correct can never be a question of what the prevailing power-relations, opinions or discourses are at a given point in time. Instead, the veracity of scientific statements in the transitive dimension is a question of how well they capture the nature of the objects in the intransitive dimension they concern. It is important to understand what this entails and what it does not entail. It entails that critical realists claim that things in the world *are* in a specific way and that reality can 'exercise resistance' against specific representations of it so that one piece of knowledge can be held to be more adequate than another (Gunnarsson 2014: 11). But it does not entail that critical realists claim to be more knowledgeable than others, let alone that they have access to the definitive truth about *how* things are. All knowledge is fallible and as Sayer (2000: 40) points out, "[h]istory makes fools of those who claim to have at last discovered the truth in some absolute, ultimate sense".

Postmodernists may not, strictly speaking, be relativists, and, *politically*, scholars like Laclau and Mouffe stand in opposition to both neoliberalism and right-wing populism. Still, their position is nonetheless characterised precisely by the content normally associated with relativism, inasmuch as any *external* yardstick in relation to which competing statements can be assessed is dispensed with. To postmodernists, then, disagreements are nothing more than reflections of different (political) opinions. Critical realists, to the contrary, highlight that researchers are able to reflexively exercise judgmental rationality, meaning that "although our knowledge is fallible and without sure foundations and is always knowledge under particular socially and linguistically mediated descriptions, nevertheless there can be rational grounds for preferring one to another competing description (belief or theory)" (Bhaskar 2016: 25). Both postmodernists and critical realists are epistemological relativists, but

postmodernists go a step further and deny the possibility of judgmental rationality.

In critical realism, the production of knowledge is regarded as an example of the general agency-structure/culture relationship: through their activities, researchers can either reproduce or transform the structures and discourses existing in universities and other knowledge organisations. Some researchers reproduce prevailing discourses. They can have different reasons for doing so, relating, for instance, to their ethical beliefs, the nature of the training they have received and/or their career ambitions. For many academics, being a knowledge worker is a career opportunity, and typically, it is opportune to conduct research that does not upset the powers that be. Other researchers choose to defy those in power and conduct research that challenges prevailing discourses and structures. Examples are the economists who oppose neoliberalism and climate scientists who also act as climate activists. Critical realists would thus maintain that far from always serving the powerful, knowledge can also be in opposition to economic and political power. They would also question whether, for example, forecasts made by mainstream economists deserve the label of knowledge in the first place. Perhaps it is better to think of it as 'ideology', 'noise' or 'non-knowledge'.

Core concept: Ideology

Ideology is a contested concept in the social sciences. In the Marxist tradition, the concept is used to refer to false ideas that are promoted by the ruling class(es) to justify the existing social order. Serving to conceal the contradictions of this order, ideology cultivates false consciousness and political passivity among the proletariat. On this view, an ideological statement or belief is considered not only wrong but also bad. Ideology thus necessarily has to do with both facts and values, and the separation of the two can be deemed ideological in itself.

We can end this section by noting that postmodernism and critical realism emerged from the same historical context, namely the crisis of the 1970s. Both are critical of positivism, and they also share a scepticism towards exalted knowledge, notions of unambiguous progress and scientific arrogance. Still, critical realists are less dismissive of the modernist heritage than are

postmodernists. Overall, critical realism constitutes a genuine alternative to both modernism and postmodernism.

Critical realism in action: Postmodern capitalism

In *The Condition of Postmodernity,* Harvey (1990) sets out to analyse postmodernism not so much as a set of ideas, but as a historical condition. He contends that there has been a sea change in cultural, political and economic practices since the early 1970s and finds a common basis in the changes of capitalism brought about by a particular crisis dynamic. In this perspective, postmodern cultural forms correspond with more flexible modes of capital accumulation and a new round of 'time-space compression', the latter meaning that capitalism has throughout its history been speeding up the pace of life and likewise overcome the spatial barriers in life so that the world sometimes seems to collapse inwards upon us. However important the postmodern condition, Harvey argues, when judged against the persistence of capitalism, the various new ideas and practices of recent decades appear more as shifts in surface appearances than as signs of some entirely new society. Capitalism has changed, but deep down, it continues to rely just as much as ever on capital accumulation and expansion of wage labour through endless economic growth. Harvey's interdisciplinary depth analysis of capitalist development in the twentieth century resonates well with critical realism.

AGENTS AND STRUCTURES

Postmodernists consider the very notions of 'agents' and 'structures' to be out of touch with reality and thus problematic. Consequently, their strategy is to transcend these notions through *deconstruction*, which is the preferred, if not clearly defined, methodology in postmodernism.

Core concept: Deconstruction

Deconstruction was introduced by Derrida and serves the purpose of criticising the binary oppositions (called dualisms by critical realists; see Chapter 4) pervading the modernist way of thinking. That is, oppositions

such as text-speech, male-female, knowledge-power, true-false. Such oppositions are criticised on the ground that they are implicitly hierarchical, so that one side (say, knowledge) is privileged while the other side (say, power) is marginalised and repressed. Deconstructionists see it as their task to revitalise the marginalised side, 'the Other', by bringing into question hierarchies as well as binary oppositions in general (Hay 2002: 230–234). Another meaning of deconstruction ascribed to Derrida is a way of thinking about and reading texts in order to undermine (deconstruct) the power of authors to impose meanings and construct coherent narratives (Harvey 1990: 49–51).

Fredric Jameson (1998: 5) associates the transition from modernity to postmodernity with "what is generally called the 'death of the subject' or, to say it in a more conventional language, the end of individualism as such". This observation applies to Foucault, to whom "[t]he individual, with his identity and characteristics, is the product of a relation of power" (1980: 74). Lyotard also considers individuals to be passive and reactive – subordinated to the system of power. He does speak of an individual 'self', but only to add that "each of us knows that our *self* does not amount to much" (Lyotard 2001: 15). Our self "exists in a fabric of relations that is now more complex and mobile than ever before" and "one is always located at a post through which various kinds of messages pass" (2001: 15). It does not follow that we, as individuals, are completely helpless. Everyone, even the least privileged, have different means of action in relation to the language games they are part of. For Lyotard, however, these elements of freedom also seem to be aspects of the system rather than potentials of actual change. Relatedly, Paul Virilio (1932–2018) suggests that the era of the information revolution is "the era of the syncronization of opinion" (Virilio 2002: 31) in which "the systems of information transmission have become bombs which keep on exploding in people's minds" (Virilio 2002: 22). As an echo of Virilio – or perhaps it's the other way around – Baudrillard (2007: 48) points out that what he calls 'the masses', and to which he ascribes major social impact, is "an opaque, blind stratum" which is "[b]ombarded with stimuli, messages and tests".

As for Laclau and Mouffe's discourse theory, it breaks with the traditional notion of agents. This does not involve altogether abandoning the idea of something that can make decisions. With inspiration from psychoanalyst Jacques

Lacan (1901–1981), 'the subject' enters the limelight. At the outset, the subject has no identity, but it constantly seeks to establish one by identifying with different discourses. It is underlined that the identity of the subject is never structurally determined, the reason being that the 'discursive structure' is permanently incomplete or 'dislocated'. Indeed, "there is always something that resists symbolization and domestication", revealing "the limit, incapacity and contingency of the discursive structure" (Torfing 1999: 149). Being dislocated, the discursive structure is unable to determine the decisions of the subject. While the subject always has an incomplete and 'failed structural identity', it is also held to be "partially self-determined in the sense that it constitutes the locus of a decision" (1999: 149). Symptomatically of the imaginativeness characterising discourse theory, subjects are also described as the 'distance' between dislocated structures and decisions (Laclau 1990: 30).

Critical realists do not share the view that human beings can fruitfully be conceptualised as 'masses', 'bomb craters', 'loci', 'distances' and the like. Certainly, identities are strongly influenced by social, economic, media-related and political factors, but it cannot be concluded against this background that the human subject is 'dead' or a heap of ruins. Critical realists take the commonsense view that the world is populated with real people who "as language-using, meaning-creating beings, are able to change themselves, their social relations and their environments, and hence are able to transform the ways of acting, relating and thinking that hold at any particular time" (Sayer 2000: 97).

Whereas discourse theory speaks only of *discursive* structures, critical realists maintain that people in the social world are also confronted by *objective* social structures that both enable and constrain their activities. It is, for instance, because of the existence of objective structures such as competition in the labour market and the price system that not all young people can get their favourite job or are able to buy a home. That economic inequality is growing, and that millions of people die every year from trivial diseases in the global South, among other reasons because they are particularly exposed to climatic changes, are likewise phenomena with objective structural causes. The same applies to the existence in the global North of millions of other individuals who lead luxurious (and environmentally harmful) lifestyles while being able to shield themselves from the downsides of extreme weather and rising temperatures.

As described in the first section above, the late Baudrillard hinted at the merits of an approach that sounds almost like a form of critical realism. And Laclau (2012: 84) summarises how he sees the connection between discourse theory and critical realism in the following manner: "I see critical realism, not as something that discourse theory would reject entirely, but as one of the

possibilities for discursively constructing the real". Baudrillard and Laclau thus, to some extent, acknowledge the value of a critical realist perspective, even though their own oeuvres certainly sit uneasily with it. Critical realists can reciprocate and acknowledge that postmodernist approaches have merits and that it is important to enter a dialogue with postmodernists instead of trying to exclude or ignore them (e.g., Sayer 2000: 30). Certainly, opinions as regards postmodernism differ among critical realists, but many would agree with Baudrillard that radical and provocative thought is needed (Marsden 1999: 3–7; Nielsen 2015: 217; Richmond and Porpora 2019). Overall, the brief juxtapositions of postmodernism and critical realism provided in this and the previous two sections should not conceal the fact that the relations between the two strands of thought are highly complex and multifaceted.

CRITICAL REALISM AND SOCIAL CONSTRUCTIONISM

The relationship between critical realism and social constructionism is another theme that has attracted attention in recent times. The theme is worth considering in the present context inasmuch as postmodernism and constructionism are often closely interwoven (Elder-Vass 2012b: 4). Indeed, postmodernism constituted the cultural and intellectual backcloth against which constructionism developed (Burr 2015: 12). Even though realism and constructionism are frequently presented as opposing positions, there is not necessarily a contradiction between being a critical realist and being a constructionist. The social constructionist Vivien Burr (2015: 9) writes that "[a]lthough social constructionism is generally suspicious of realist claims, some social constructionists embrace a form of realism known as critical realism". And Elder-Vass (2012b: 3) advances "the critical realist argument that social scientists should be *both* realists *and* social constructionists".

Here it is important to be aware that constructionism comes in different versions (see, e.g., Collin 1997; Gergen 1999: 33–62), some of which cannot be reconciled with critical realism. In the interest of keeping things simple, we can distinguish between moderate and radical forms of social constructionism. These correspond to what Sayer (2000) calls 'weak' and 'strong' constructionism. Whereas the former "merely emphasizes the socially constructed nature of knowledge and institutions, and the way in which knowledge often bears the marks of its social origins", the latter "also claims that objects or referents of knowledge are nothing more than social constructions" (Sayer 2000: 90). To give an example, moderate constructionists would say that knowledge of the

climate crisis is constructed and relates to the context of, for instance, the IPCC, whereas radical constructionists would say that there is nothing more to the climate crisis than social constructions. According to Sayer (2000: 90), the moderate (weak) form of constructionism is compatible with critical realism, whereas radical (strong) constructionism is not. Elder-Vass also delimits critical realism from radical or 'extreme' forms of constructionism. These involve the view that "*everything* depends on the ways in which we think about it" or at least they "include in the socially constructed category things that realists would not" (Elder-Vass 2012b: 6).

Critical realism *is* a weak or moderate form of constructionism. At least if we take this to mean a position that fully recognises that knowledge is a social product, which considers social reality to be a result of social interactions and which moreover highlights the importance of meaning, interpretation, language, culture and discourse. Crucially, however, critical realism is a specific form of constructionism that differs from other – radical as well as moderate – forms of constructionism. It does this by building on a more inclusive and balanced ontology. In the worldview of critical realism, there is not only room for the ideational aspects typically highlighted by other constructionists, such as ideas and discourses about the climate crisis. There is also room for objective structures, causality, tendencies and depth. Naturally, this makes a big difference to the type of social science to be practiced (see Chapter 6).

SYNTHESISING POSTMODERNISM AND CRITICAL REALISM

What is the current status of postmodernism? Postmodernism surely occupied a stronger position in the academic world 25 years ago than it does today. Garry Potter and Jose Lopéz exaggerated slightly when they suggested, at the beginning of the millennium, that postmodernism "is in a state of decline! It lingers on, its influence for good or ill continues, but postmodernism has 'gone out of fashion'" (2001: 4). Nonetheless, there was some truth to their suggestion, and the tendency they identified has not weakened in the time that has passed since then. Still, postmodernism continues to be a major perspective in some research fields, a case in point being gender studies (see Chapter 8). As such, it is not the case that postmodernism "is dead", as is suggested by Elder-Vass (2012b: 4).

The declining influence and continued significance of postmodernism can be illustrated through two key oeuvres of the current century, namely the joint works of Michael Hardt and Antonio Negri and the works of Klein. Both oeuvres are deeply influenced by postmodernist ideas and currents, yet simultaneously

they increasingly move away from postmodernism in crucial respects. Their stance on postmodernism is thus simultaneously open and positive, while in some respects, fundamentally critical. In their book *Empire* (2000), which became an international bestseller, Hardt and Negri, on the one hand, regard postmodernism as an essential perspective that cannot be altogether discarded. This perspective is held to contain progressive elements such as the identification of a general state of crisis and analyses of the mobility and flexibility of new social subjects. On the other hand, Hardt and Negri (2000: 151) suggest that postmodernists often end up supporting capitalism and its ideological basis. They also point out that the postmodernist "attack on master narratives and its critique of truth" (Hardt and Negri 2000: 155) primarily appeals to western intellectual elites, while it loses its emancipatory aura beyond those circles. In reality, then, the emancipatory potential of postmodernist discourses caters solely to "an elite population" (2000: 156, see also 2009: 113–114).

Empire can be seen to represent both the culmination of postmodernism and its incipient decline. In their following books, Hardt and Negri move into genuinely critical realist terrain and draw on postmodernism to a lesser extent. In *Multitude* from 2004, they work explicitly with social depth and tendencies and moreover they deal with the agency-structure dualism in a way that resonates with critical realism (Nielsen 2007c). In their latest book, *Assembly*, Hardt and Negri thematise realism, not postmodernism (see, e.g., Hardt and Negri 2017: 231–236) and argue that "the only path that leads to a sustainable future" is to build on a realism that "consists in recognizing the tendency animated by the movements of contemporary society, illuminating the desires embedded in them, and then bringing the future back to the present" (Hardt and Negri 2017: 283–284).

Hardt and Negri's analyses of power and resistance in recent years serve to illustrate that postmodernism is still alive, even if it is not placed as high on their agenda as it used to be. Postmodernism has been integrated into the great narrative about global reality and its potential that is being unfolded and adjusted continuously by Hardt and Negri. Their persistent and positive engagements with the concepts and analyses of Foucault are probably the best examples of this (see, e.g., Hardt and Negri 2000: 22 ff., 2017: 208 ff.), but they also continue to engage with the works of more recent postmodernist thinkers who, to a lesser or greater extent, build on the heritage from Foucault, such as, for example, Gilles Deleuze and Judith Butler (Hardt and Negri 2000: 25, 2017: 12–13, 60; see also Rutzou 2017).

Critical realism in action: Assembly

In *Assembly*, Hardt and Negri (2017) argue that neoliberalism is a reaction to the struggles for democracy and identity that culminated in the 1970s. Under the neoliberal regime, common democratic life is first limited and then emptied out. The ways in which subjects are governed move away from concrete social life as neoliberalism operates mostly through markets and quasi-markets in the public sector. Economic power likewise rules from a distance in the financial economy, through money, debt, housing prizes and other abstract financial mechanisms. Hardt and Negri's primary interests are contemporary visions and alternative modes of life, and in that context, their goal is to find solutions to the current social and ecological crises. Such an endeavour is consistent with the scientific and emancipatory aspirations of critical realism. One of the solutions they bring up is a guaranteed basic income, unconditional and equal to all, on a global level. Such a basic income could be accompanied by a struggle for freedom of assembly; taking power in a new way, by working socially in new productive assemblages.

Hardt and Negri's work illustrates an increasing tendency towards synthesising critical realism and postmodernism in complex and progressive ways. The same can be said of Klein's work. Like *Empire*, Klein's *No Logo* (2000) relates both positively and critically to postmodernism. As with many postmodernist thinkers, Klein ascribes great importance to consumption, signs, culture and language. Yet at the same time, she distances herself from postmodernist excesses while underscoring that much postmodernist thinking is capitalist ideology or at any rate fails to grasp the misery of global capitalism. Klein turns against the one-sided focus on identity, language and representations and against the "postmodernist realization that truth itself is a construct" (2000: 104, see also 107–124). *No Logo* can be characterised as being compatible with critical realism, inasmuch as Klein clearly distinguishes between surface and depth – and gives priority to the latter. As she puts it, "we live in a double world: carnival on the surface, consolidation underneath, where it counts" (Klein 2000: 130). In her following two books, Klein deals extensively with neoliberalism (2007) and climate change (2014). More recently, in *No Is Not Enough* (2017), Klein makes it clear that her thinking is still influenced by postmodernism. Here American president Donald Trump is turned into a prism for

up-to-date reflections on her past books and theses, with media and brands as prominent elements. In the book, Klein argues that "Trump, extreme as he is, is less an aberration than a logical conclusion – a pastiche of pretty much all the worst trends of the past half century" (2017: 9). With Trump, postmodernism has returned to haunt us with alternative facts, fake news and incredulity towards climate science. Against this background, Klein writes approvingly of initiatives that "have emerged to defend objective reality" in a section of the book titled "the revenge of reality" (2017: 200).

Critical realism in action: Capitalism vs. the climate

Klein (2014) summarises climate change in the following way: *This Changes Everything*. Framing climate change as an existential crisis for the human species, Klein takes issue with policy-makers who insist that the response to it can be gradual, consensual and painless. The very essence of our current model of development is at stake. Adopting a position that resonates well with critical realism, Klein argues that fighting climate change while clinging on to capitalism, economic growth and the market ideology is futile. The idea of endless progress that has shaped our societies for centuries is at the very root of climate change. According to Klein, drastically reducing fossil fuel use and initiating a grand transition towards another society poses dangers as well as opportunities. She regards meaningful green jobs and reductions of labour time as appealing and considers more humane and fulfilling lifestyles to be a real alternative to the current system. Likewise, she finds much evidence of current opposition and alternatives to fossil capitalism and is hopeful of the possibility of building a broad mass movement to bring about sustainability and equality.

Neither Klein, nor Hardt and Negri use the terminology developed by critical realists, nor do they refer to landmark works in the critical realist tradition. Their oeuvres can be summarised as being *implicitly* critical realist as opposed to explicitly critical realist. The same applies to many other classical or contemporary theorists displayed as 'role models' by critical realists. In addition to scholars who can be seen to implicitly synthesise insights from critical realism and postmodernism, there are also scholars who more explicitly draw on both

traditions. For instance, Paige Sweet (2018) brings together feminist standpoint theory and critical realism, arguing that both perspectives have important insights to bring to the table.

DISCOURSE AND CULTURE ARE NOT ENOUGH

Postmodernism is often associated with what is called the linguistic or cultural turn. With this turn, language, discourses, media and culture became prominent themes. In fact, the landmark work in critical theory, Max Horkheimer (1895–1973) and Adorno's *Dialectic of Enlightenment* (1986), which was originally published in 1947, can be seen as an early forerunner of postmodernism and the cultural turn in the social sciences. What we have in mind here is Horkheimer and Adorno's critique of enlightenment, reason and positivism, their fragmented writing style and the cultural-theoretical lenses through which they accorded privilege to the 'culture industry'. In *The Mirror of Production*, Baudrillard later radicalised the cultural turn. In a critical move typical of him, he turned the previous subordination of the cultural under the economic completely upside down. He identified a 'cultural revolution' that emerged with the transition to the consumer society and which exploded after 1968 by elevating race, gender, language and culture to the top of the social agenda (Baudrillard 1975: 130, 142).

Larry Ray and Sayer (1999) find that culture has ousted the economic from substantial parts of the academic agenda. If this is indeed (still) the case, it is by no means a development that critical realists consider unambiguously negative. Critical realism does not constitute some sort of antidote to research that ascribes importance to culture. Whereas it used to be Marxists who tended to focus one-sidedly on the economic and who heavily influenced the social sciences, in recent decades, it is rather the mainstream economists who have influenced parts of the social sciences with a purely economic agenda by exercising a near monopoly on economic analysis while expanding their analytical reach. This development, for instance, manifests itself in an abundance of research that revolves around identifying stable quantitative patterns and studying the utility-maximising choices of rational actors in various corners of the social world – cases in point being students, teachers and scientists in higher education and politicians, political parties and voters in politics.

Resisting one-sided economic thinking remains highly relevant in this context. Critical realists do not, however, consider it fruitful to break with economic or rational choice reductionism if it results simply in new forms of

reductionism – as when discourse theory reduces *everything* to discourses. As a counterweight to reductionism, critical realism facilitates social scientific analyses that take into consideration culture and discourse as well as economic and non-discursive factors (see also Chapter 4).

Fairclough's critical discourse analysis is a prominent example. Directly linked to critical realism (Chouliaraki and Fairclough 1999; Fairclough 2001a; Fairclough et al. 2004), critical discourse analysis considers social reality to consist of both discursive and non-discursive elements. The perspective operates with a far narrower concept of discourse than do Laclau and Mouffe. *Discourses* are understood as the semiotic elements of social practice and thus include spoken and written language, nonverbal communication and images (Chouliaraki and Fairclough 1999: 38). With this conceptualisation, discourses are regarded as selective and simplified representations of specific parts or aspects of reality, but never as neutral reflections of it. According to critical discourse analysts, if we are to understand why some discourses end up being marginalised or 'alternative' while others become dominant or hegemonic horizons of meaning, we need to see those discourses in relation to economic interests and political power relations. That is, we need to situate them in the non-discursive social context they form part of (Fairclough 2001a: 124).

Critical realism in action: New labour?

Noting that language has always been important in politics, Fairclough (2002) argues that it has become even more important in recent decades due to the increasing importance of mass media. In *New Labour, New Language?*, he explores the rhetoric and reality of 'The Third Way' as a critical realist. Whereas the rebranding of the UK Labour party as 'New Labour' in the 1990s was claimed to be a matter of a new politics that transcended the old division between Left and Right, Fairclough finds plenty of evidence suggesting that the policies of New Labour were to a considerable extent a continuation of the neoliberalism of the Thatcher era. New Labour considered markets to be facts of life, and their language conveyed the message that there is no alternative to neoliberalism. However, whereas the rhetoric of Thatcher was polemical or even hostile, the discourse of New Labour was inclusive and broadly appealing. Arguably, the discourse was designed to create consensus by smoothing out or concealing the real consequences of neoliberal policies, consequences such as increasing inequality and ecological degradation.

Another example of a theoretical perspective that explicitly draws on critical realism is the 'cultural political economy' perspective developed by Jessop and Ngai-Ling Sum (e.g., Jessop and Sum 2013; see also Belfrage and Hauf 2017). In a similar vein, Sayer (2001) advocates a 'critical cultural political economy' perspective, which focuses on morals and norms (see also Elder-Vass 2016). As the labels attached to these various perspectives reveal, the ambition is very explicitly to bring into focus the cultural dimension of political economy without reducing everything to a question of culture. This endeavour is certainly consistent with critical realism. Whether such perspectives are, in fact, successful in ascribing sufficient importance to both the cultural and the material is, however, open to discussion. Jessop and Sum's cultural political economy perspective has, for instance, been convincingly criticised for ending up giving priority to the cultural at the expense of the material (Staricco 2017).

Critical realism in action: Discourse analysis

Wendy Sims-Schouten and Sarah Riley (2014) developed a method for doing critical realist discourse analysis that differs from Fairclough's critical discourse analysis. Relying heavily on discursive psychology and drawing from the tradition of 'synthesized' discourse analysis, their approach goes beyond the type of discourse analyses conducted by social constructionists. It does this by assuming the existence of an extra-discursive reality consisting of embodiment, materiality, social structures and institutions. Their method involves three iterative phases. The first phase consists in conducting a literature and research review with a view to identifying discursive and extra-discursive factors that may be important in the context at hand. The second phase consists in developing ways of collecting and measuring data. It can involve combining data collection methods associated with quantitative research, such as questionnaires, and methods used in qualitative research such as interviews, observations and comparative case studies. In the final phase, the data are analysed, drawing on different strands of discourse analysis. This phase highlights the discursive as well as the extra-discursive. In the example unfolded by Sims-Schouten and Riley, this, for instance, includes neoliberal subjectivity and governmental policies in cases of parental decisions on childcare.

Summary

- Postmodernists are realists but tend to focus on studying such phenomena as language games, simulations and discourses on the surface of reality. By contrast, critical realists insist that the social sciences should seek to dig below surface appearances so as to generate knowledge of deep social structures.
- In contrast to critical realists, postmodernists consider knowledge and truth to be relative to discourses and to be reflections of power.
- Postmodernists replace agents with 'products of power relations', 'distances' or 'masses', and regard social structures as open and dislocated. Critical realists focus on dynamic interplays over time between objective social structures and activities of reflective real persons.
- While critical realism is inconsistent with radical forms of social constructionism, it can be considered a specific form of moderate constructionism.
- While postmodernism has been in a state of decline in recent decades, there are several good examples of recent fruitful syntheses between postmodernism and critical realism.
- Whereas postmodernism tends to reduce everything to culture, critical realism facilitates social scientific analyses that take into consideration non-discursive factors as well as culture.

8 Contemporary Critical Realism

Over time, critical realism has evolved into a massive and highly complex field. On the one hand, critical realism is a philosophy of science perspective with a particular content, which is held together by key texts and concepts, agents and structures. On the other hand, this perspective is under continuous development and negotiation. Different scholars emphasise and use different aspects of it. Concepts are interpreted in diverging ways, new concepts are introduced and syntheses are made between critical realism and other strands of thought. Numerous aspects of critical realism have been subjected to critical scrutiny, both by scholars who consider themselves critical realists and by scholars who do not. Few if any parts of critical realism thus remain uncontested. Far from being a uniform position that has crystallised in its final shape, then, critical realism continues to evolve.

To complicate matters, Bhaskar – whose early texts were essential to the formation of basic critical realism – developed critical realism in new and surprising directions from the 1990s onwards. The twists and turns in his thinking resulted in some confusion as to what critical realism is and gave rise to at times heated debates. In parallel with this process, however, an increasing number of researchers in the social sciences found critical realism in its basic form valuable to their work, as a result of which it gradually made inroads into a wide range of research fields. In this chapter, we address the later phases in Bhaskar's work. We moreover consider the status of critical realism in contemporary social science, including its relations to two major critical research traditions, Marxism and feminism.

Learning objectives

- Distinguish 'basic critical realism' from later phases in Bhaskar's thinking
- Understand why these phases are considered controversial by many critical realists
- Gain insights into the status of critical realism in contemporary social science
- Recognise how critical realism relates to Marxism and feminism

BHASKAR'S ODYSSEY

Until 1993, Bhaskar's books operated within the framework that had been established with his landmark works from the 1970s. Although his books from the 1980s and *Philosophy and the Idea of Freedom* from 1991 (Bhaskar 2011b) were significant contributions, they can still be considered works that aim to consolidate and develop the critical realist perspective as it appeared already in 1980.

Dialectical critical realism

It was only with the publication of the monumental tome *Dialectic: The Pulse of Freedom* in 1993 that a fresh project was launched in the form of 'dialectical critical realism'. This development was cemented the following year with the publication of *Plato Etc*. In Bhaskar's view, the dialectical turn represents not so much a break as a "dialectic enrichment and deepening of critical realism" (Bhaskar 2008b: 2). It includes two new dimensions: a general theory of dialectics focused on the social sciences and a general critique of Western philosophy. It can, however, be debated whether dialectical critical realism merely constitutes an enrichment and deepening of critical realism. In its basic form, critical realism is first and foremost a perspective in the philosophy of science, the primary purpose of which is to support and transform (social) scientific practice. Such aspirations take a back seat in dialectical critical realism. Now it is philosophy, broadly conceived, that occupies the centre stage and that, it appears, has to shoulder the burden of solving all the problems of the world. Revolving around the terms 'non-identity', 'negativity', 'totality' and 'praxis', Bhaskar's

dialectical work connects "problems of agency, structure and causation to the nature of change in a dynamic world, and to the relationship between human being and nature on the one hand and human being and history on the other. In the process, it thinks through the relationship between historical emergence, the nature of human being, and its emancipation" (Norrie 2010: 3).

The dialectical turn is controversial as many critical realist practitioners consider it a key strength of critical realism that it constitutes a distinct philosophy of science perspective as opposed to a broad philosophical system. Moreover, they appreciate the clear division of labour between science and the philosophy of science that was established in Bhaskar's early works. In *Dialectic* and *Plato Etc*., philosophy takes over the show. Thus, even though Bhaskar regards dialectical critical realism as "a second wave of critical realism" (2008b: 299), it is certainly not a wave that all critical realists have been tempted to ride.

Transcendental dialectical critical realism

The transition from critical realism to dialectical critical realism arguably constitutes a profound transformation of critical realism, one that expands and displaces its perspective. In the book *From East to West: Odyssey of a Soul* from 2000, dialectical critical realism is apparently subjected to the same treatment in the sense that (dialectical) critical realism morphs into '*transcendental* dialectical critical realism'. This time around, Bhaskar acknowledges the depth of the transformation, remarking that the book "constitutes a very radical development of the existing philosophy of (dialectical) critical realism" (2000: ix). At the same time, he, however, underscores that "[n]othing in this book involves the rejection of any existing (dialectical) critical realist position. Rather it constitutes a development, albeit only one possible development, of dialectical critical realism, involving a further transcendental radicalisation of it" (Bhaskar 2000: ix–x). The book consists of two parts, of which the first retells Bhaskar's previous authorship and situates the transcendental radicalisation in relation to it. This radicalisation is presented here as a philosophy of and for universal self-realisation and ultimately God-realisation (Bhaskar 2000: 21). God? To the surprise of many, Bhaskar brings critical realism into a context that includes arguments about unconditional love and the existence of God and angels, as well as elements and concepts from eastern philosophy and new age thinking. Here one encounters observations such as "[t]o access God and make him one with the Self is to find one's true identity in Self or soul […]. One is then both fully an individual and fully God (Godlike) and full of God, fully oneself as Self and fully (and perhaps for the first time) free" (2000: 50). If the first part of the

book is already shocking to readers adhering to basic critical realism, the second part comes across as no less radical. In 'a narrative novella' Bhaskar tracks his soul's journey on its way to enlightenment over 15 lives, lived in different historical periods and settings. Whereas the first 14 lives are presented as previous incarnations of Bhaskar, the last one describes his (at the time) unfinished life.

The philosophy of meta-Reality

The transition to transcendental dialectical critical realism is often referred to as a religious or spiritual turn. The emphasis on the spiritual is maintained in Bhaskar's next books, which present a new development in his thinking in the form of the *philosophy of meta-Reality* (Bhaskar 2002a, 2002b, 2002c). Bhaskar, however, points out that *From East to West* merely represented an "investigatory phase", whereas the books on meta-Reality represent a second and "definitive phase" (Bhaskar 2016: 145). In this definitive phase, the religious aspect is downplayed somewhat. Bhaskar observes that "[t]ranscendental dialectical critical realism is, if you like, a halfway house at which there is a conception of the absolute and a conception of the interconnectivity involved, but it is not yet adequately theorised because it is not comprehensive. It seems to exclude those who define themselves as agnostic or atheist, and there is no reason to do that" (Bhaskar with Hartwig 2010: 156). The philosophy of meta-Reality, then, is held to be equally compatible with religious and secular interpretations.

In the books on meta-Reality, Bhaskar situates his new philosophy in relation to basic critical realism. He writes that he regards "critical realism, in its fullest development, as being the best description of the world of duality to date. But that world has a basis or ground, a mode of constitution and a fine structure, which meta-Reality [...] sets out to describe" (Bhaskar 2002c: ix). On this view, the world of duality that we inhabit, characterised as it is by "unhappiness, oppression and strife ... is ultimately sustained by and exists only in virtue of the free, loving, creative, intelligent energy and activity of non-dual states of our being and phases of our activity" (2002a: 8). If we are to live in a society of peace and fulfilment, this non-dual zone – referred to as *meta-Reality* – is to be expanded by getting rid of everything that is inconsistent with the creative, loving and free natures of human beings (Bhaskar 2002a: 9). In the non-dual zone, all is one: everything is a part of everything else. Whereas critical realism deals with the world of duality, then, the philosophy of meta-Reality concerns a non-dual level that "cannot be conceptualised in normal realistic, that is dualistic, terms" (Bhaskar 2002c: 51). Consequently, Bhaskar observes that "[p]erhaps it is best not to call the philosophy of meta-Reality a realism, as

realism connotes the idea of a split or opposition between a world and its description, that is insofar as the very concept of realism is itself dualistic" (Bhaskar 2002c: xxiii).

Bhaskar announced the publication of a series of books on the philosophy of meta-Reality that never materialised (Bhaskar with Hartwig 2010: 171). Instead, his work after 2002 took other turns, not least in the direction of so-called 'applied critical realism'. Working with various social scientists, the question of how critical realism can be of use to practicing researchers – and in interdisciplinary research in particular – became central. One outcome of this turn was *Interdisciplinarity and Wellbeing*, a book written with Berth Danermark and Leigh Price. The book outlines a general critical realist perspective on interdisciplinarity and applies it to research on health and wellbeing (Bhaskar et al. 2018). Another outcome was the edited volume called *Interdisciplinarity and Climate Change* (Bhaskar et al. 2010). In *The Formation of Critical Realism* from 2010, containing a series of interviews with Bhaskar conducted by Hartwig, Bhaskar mentioned that he had started working on a book – a 'research manual' – called *Applied Critical Realism* (Bhaskar with Hartwig 2010: 196). This book project was, however, not brought to completion before Bhaskar's death in 2014.

Table 8.1 Key works of Roy Bhaskar

Title	*Year of publication*	*Content*
A Realist Theory of Science	1975	Bhaskar's first book. Introduces the philosophy of science perspective of 'transcendental realism'.
The Possibility of Naturalism	1979	Develops the 'critical naturalist' perspective. Together with *A Realist Theory of Science* this book provides the main foundation of basic critical realism.
Dialectic – The Pulse of Freedom	1993	Sets forth the perspective of 'dialectical critical realism'.
From East to West. Odyssey of a Soul	2000	Presents 'transcendental dialectical critical realism'.
Meta-Reality	2002	Gives a comprehensive introduction to the 'philosophy of meta-Reality'.
Enlightened Common Sense. The Philosophy of Critical Realism	2016	Provides a systematic overview of Bhaskar's main ideas and the various phases in his oeuvre.

CONTROVERSIES AND OPEN ENDS

When Bhaskar launched dialectical critical realism, he pointed out that "[i]t takes time for a new system to gain ground" (2008b: 299). He was right. It took approximately 20 years for critical realism to become widely known, and it is still the case that Bhaskar's books from the 1970s and 1980s are setting the agenda to a much greater extent than do his later works. Indeed, only a minority of critical realists embrace the dialectical turn, not to mention the philosophy of meta-Reality. In *Enlightened Common Sense*, in which Bhaskar takes stock of his work, he makes the following observation: "Although most critical realists would accept most of transcendental realism and critical naturalism, there is not the same unanimity about dialectical critical realism and the philosophy of metaReality … some aspects of which have indeed been hotly disputed" (Bhaskar 2016: 11).

Among critical realists, opinions as to the merits of Bhaskar's dialectical philosophy *do* differ profoundly. For instance, whereas Alan Norrie (2010: 3) argues that *Dialectic* is "a work with an enormous range of social theoretical relevance", Sayer criticises Bhaskar's dialectical work for "ignoring substantive social and political economic theory on modernity and the intractable practical dilemmas which it identifies. The resulting impression is one of pulling global salvation out of the critical realist hat" (2000: 170). Although dialectical critical realism has not attracted anywhere near the same attention as basic critical realism, quite a few scholars have utilised (parts of) Bhaskar's dialectical philosophy, relating it to a wide range of issues, including, for instance, ethics and justice (Norrie 2010), qualitative research methodology (Roberts 2014) and world-historical causation (Patomäki 2017). Dialectical critical realism is also discussed in a 2013 special issue of the *Journal of Critical Realism*, which marked the twentieth anniversary of the publication of *Dialectic* (e.g., Morgan 2013).

A rather similar picture emerges when we turn to Bhaskar's philosophy of meta-Reality. Among critical realists who think highly of it, we find Hartwig, who notes that this philosophy "is arguably in reality far ahead of its time and will in due course come to be ranked, in terms of its creativity and profundity, with original critical realism" (2015: 343–344). Some scholars utilise the meta-Reality philosophy in their research (e.g., Gunnarsson 2014; McDonald 2008) and more generally, a number of critical realists have engaged in questions related to spirituality and religion (Archer et al. 2004; Hartwig and Morgan 2012). It is, however, safe to say that most critical realists look upon such matters with considerable scepticism. Examples of works criticising 'the spiritual turn' and meta-Reality from the vantage point of basic critical realism include

Creaven (2010) and Elder-Vass (2010). Overall, it can be concluded that whereas Bhaskar's books from the 1970s and 1980s are landmark works in the critical realist tradition, his later works occupy a less privileged position as they are typically regarded to be more on par with efforts by other scholars to use and develop critical realism. These efforts emanate from varying interests and point in many different directions. Indeed, over the years, countless scholars have engaged with critical realism from an extremely broad range of fields, resulting in a profusion of projects and texts. The literature relating to critical realism thus keeps growing, and by now it is so vast that no one is likely to have a full overview of it.

Inasmuch as critical realism is not a once-and-for-all-established doctrine, a continuous process of clarifying what critical realism is (not) can be identified. Often it turns out to be complex to determine where the boundaries run between critical realism and other perspectives. For instance, discussions of differences, similarities and boundaries between critical realism and postmodernism have created new openings and given rise to various positions in a spectrum ranging from forthright rejection (Joseph 2002) over critical dialogue (Sayer 2000; Dean 2004) to positive recognition (Roberts 2007; Maxwell 2012; Nielsen 2015). In a similar vein, the relationship between critical realism and Marxism is by no means straightforward (see below). Aside from boundary issues, key features and basic concepts of critical realism are subject to ongoing critique and refinement efforts. This process involves both external critique and immanent critique.

External critics have, for instance, questioned the critical realist notions of social structure and emergence. Harré (2009: 138) suggests that "there are no structures" in the social world as a result of which "searching for social structures as beings on a par with actual human interactions is a unicorn project". In an exchange with critical realist scholar Tony Lawson, analytical language philosopher John Searle (2016) suggests that 'emergence' as used by Lawson is ill-defined and that it fails as an explanatory concept. Lawson (2016a, 2016b), to the contrary, insists on the importance of the concept, albeit not as an explanatory concept. Searle is not the only external critic to question the notion of emergence. Adopting a hermeneutic position, Anthony King (1999) also takes issue with the notion and argues for a non-stratified ontology. Elsewhere he suggests that the new consensus in sociology is that social reality is no longer to be understood "in terms of structure and agency but in terms of networks" as a result of which "it may now be necessary to go beyond structure and agency and the framework which Archer has done so much to develop" (King 2010: 258). Critical realists would clearly not agree that we can do away with the concept of social structure: in their view, we miss out on crucial aspects of

social reality if we study it solely in terms of agents, (inter)subjective constructs and networks. More generally, Archer's works on the agency-structure interplay and reflexivity have received much attention in the field of sociology in recent times (for an overview of some of the discussions, see Caetano 2015), suggesting that after all these remain issues of major significance.

Among critical realists, the agency-structure relationship also continues to draw attention and several other aspects of critical realism are subjected to scrutiny and development. For instance, it is contested how culture fits into the critical realist ontology (Archer and Elder-Vass 2012) and the nature of the 'intransitive' and 'transitive' dimensions is debated (Patomäki 2010; Holland 2019). Bhaskar's original distinction between 'closed' and 'open' systems has been supplemented with concepts such as demi-regularities (Lawson 1997: 204), quasi-closed systems (Sayer 2010: 122) and 'partly open' and 'partly closed' systems (Danermark et al. 2019: 54–64), all serving to underscore that many systems in social reality are not altogether open as a result of which time-space specific regularities do occur. The same insight has prompted other critical realists, most notably Næss (2004), to argue against the notion that social science should be solely explanatory, suggesting that some forms of predictions are compatible with the critical realist ontology.

Overall, critical realism is a distinctly open field. Its core features are continuously debated, and ways to refine them are regularly proposed. Moreover, engagements take place with a multitude of other fields and syntheses are suggested on a regular basis, in some respects rendering it a far from straightforward task to determine what critical realism encompasses.

CRITICAL REALISM IN TODAY'S SOCIAL SCIENCES

While critical realism is a philosophy of science perspective, it is not a perspective embraced by many philosophers of science. According to Patrick T. Jackson (2010: 76), the main advocates of critical realism "have virtually no presence in philosophy of science debates narrowly construed". He adds that "the project in which critical realist philosophers are engaged is somewhat broader than the more orthodox philosophy of science project of accounting for the success of science" (2010: 76). Indeed, critical realism seeks to be a philosophy *of* and *for* the social sciences. It has thus always been more oriented towards practitioners in the social sciences than towards the field of orthodox philosophy of science.

Over the years, critical realism has made inroads in countless research fields in the humanities and the social sciences. For example, in the field of

economics, Lawson has been "phenomenally successful [...] at changing the conversation" about methodology (Fullbrook 2009: 2). Lawson (1997, 2019) has established himself as a formidable critic of the pervasive use of mathematical–deductivist reasoning in mainstream economics. He argues that this form of reasoning is implicitly premised on a 'closed system' ontology, meaning that it assumes the occurrence of invariant event regularities. Such regularities have, however, yet to be uncovered in economics (Lawson 1997: 70), suggesting that social reality cannot reasonably be assumed to be a closed system. By implication, mainstream economists study the economy with methods that do not match the nature of reality, the result being widespread explanatory failure. Lawson argues for a different (critical realist) ontology. While this ontology sits uneasily with mainstream economics, he suggests that it is consistent with various strands of heterodox economics, including for instance post-Keynesianism, institutionalism, feminism, Marxism and Austrian economics (Lawson 2006: 484). Lawson's works have given rise to a relatively autonomous 'critical realism in economics' project, which has generated much discussion and controversy (e.g., Nielsen 2002; Nielsen and Morgan 2005; Lewis 2004; Fullbrook 2009; Morgan 2016). This project can also be seen to illustrate a wider tension in critical realist research: on the one hand, critical realism aspires to be, and in many cases succeeds in being, an interdisciplinary endeavour; on the other hand, disciplinary boundaries still tend to be upheld in many projects. Other disciplines that critical realists have contributed to include – to mention but a few – anthropology (Graeber 2015), education (Shipway 2010; Scott 2013), history (Lloyd 1993), law (Norrie 1998), political science (McAnulla 2006, Wigger and Horn 2016), psychology (Pilgrim 2020) and sociology (Porpora 2015).

Critical realists have also made inroads in various sub-disciplines such as social work (Houston 2001), international political economy (Buch-Hansen and Wigger 2011), historical sociology (Gorski 2018) and urban planning (Næss 2015). In organisation and management studies, several scholars have advocated a critical realist approach as an alternative to the polarisation between positivist and postmodernist research (e.g., Ackroyd and Fleetwood 2000). Reed (2005: 1632) even speaks of a 'critical realist turn' in this field which "redefine[s] both the nature of the 'explanatory task' in social and organizational analysis and the contribution that explanatory knowledge can make to our understanding of and participation in emergent socio-organizational forms". Critical realist contributions in organisation and management studies have related to a wide range of topics, including, for instance, human resource management (Fleetwood and Hesketh 2010), critical discourse analysis (Fairclough 2005b), causal explanation (Mingers and Standing 2017) and

guidelines on how to use critical realism in practice (Edwards et al. 2014). Another field that has witnessed the publication of several works informed by critical realism is international relations. For instance, Patomäki (2002) uses critical realism to develop an emancipatory methodology for this field, Wight (2006) brings into focus agency-structure conceptualisations to reveal the ontological assumptions underpinning the main international relations theories and Kurki (2008) develops an alternative framework for conducting causal analyses of phenomena in the international realm.

Critical realism in action: Global disintegration

In *Disintegrative Tendencies in Global Political Economy*, Patomäki (2018) argues that a global military catastrophe is increasingly possible and likely. Even if the situation does not come to this, he points out that global disintegrative tendencies are going to result in a series of deep crises. Drawing on dialectical critical realism, Patomäki seeks to illuminate the world-historical mechanisms and processes that have led the world into its current predicaments. For instance, he observes various short-sighted and contradictory dynamics in the neoliberal world economy, which have contributed to bring about political changes: increasing social disparities in the neoliberal era have caused existential uncertainty and resentment among many citizens, translating into a demand for societal self-protection, chiefly taking the form of nationalist statism. Patomäki argues that Brexit and more generally disintegrative tendencies in the European Union and the world economy should be understood against this background. A central theme of the book is that the contradictions and crises of the world economy are potential instigators, through collective actions, of the emergence of new and more adequate common institutions on a global scale.

But how influential is critical realism in today's social sciences? This is a question that cannot be answered in any precise way. That a daunting number of research publications drawing on aspects of critical realism have appeared in recent times does not in itself render critical realism a highly influential perspective because the same can be said of publications drawing on 'competing' philosophy of science perspectives. Also important in this context is the fact

that ontological and epistemological commitments are typically implicit. That is, most texts published in the social sciences – including by and large all social scientific research resonating with positivism (see Chapter 2) – are not explicitly grounded in a philosophy of science position. For this reason alone, it is impossible to verify Bhaskar's assertion that the *practice* as opposed to the *philosophy* of critical realism "has characterised (normally unconsciously) much great science, and probably at least most natural science" (Bhaskar 2016: 10). Our impressionistic answer to the above question would be that critical realism remains a *contender perspective* in the social sciences. That is, in no social scientific (sub)discipline that we are aware of – including those mentioned above – is it the dominant philosophy of science perspective (either implicitly or explicitly so). Instead, it serves widely as a vehicle for scholars in specific fields to challenge dominant ways of doing research.

It is also worth noting that the influence of critical realism – and individual critical realist scholars – varies geographically. For instance, Archer's work has undoubtedly won more recognition in British than in American sociology. More generally, it is safe to say that critical realism is bigger in Europe than in any other region of the world. England was the birthplace of critical realism, and historically, more critical realists have been based here than elsewhere, with the concentration of leading critical realists being higher at Lancaster University and the University of Cambridge than at other universities. The Cambridge Realist Workshop, of which Tony Lawson is a founding member, has for decades served as a venue for seminars with presentations and discussions. Still, influential critical realists are based outside Europe, most notably in the United States. At Yale University, the Critical Realism Network is directed by Philip Gorski. On its webpage, one can find recordings of webinars with presentations by leading critical realists – and event announcements and discussions regularly appear on its Facebook page. An online network has also been formed specifically for students and scholars based in the Asia Pacific region. Its webpage, for instance, contains short video presentations of key critical realist concepts and ideas. At the time of writing, the president of the International Association of Critical Realism (IACR) is Douglas Porpora, who is based in the United States at Drexel University. Formed in 1997, IACR is an organisation that seeks to promote critical realism, for instance, by facilitating an annual conference. IACR's journal, *Journal of Critical Realism*, publishes scholarly work that in one way or another relates to critical realism, but research drawing on this perspective also appears in countless other academic journals.

As indicated above, critical realism is more compatible with some traditions and research programmes in the social sciences than with others. Two traditions that several critical realists have engaged with are Marxism and, more recently, feminism.

MARXISM AND FEMINISM

While he emphasised that there is no necessary connection between critical realism and Marxism, Bhaskar's early writings were strongly influenced by Marx and Marxism. The relationship is evident in all his early books and is, for instance, clearly articulated in the first sentence of *Scientific Realism and Human Emancipation*. It reads as follows: "The essays which comprise this book are designed to justify and develop scientific realism, critical naturalism, and a certain, characteristically Marxian, approach to the analysis and criticism of philosophical ideas" (Bhaskar 2009: i). Elsewhere Bhaskar famously summarised the relationship between Marxism and critical realism in the following way: "Marx's work at its best illustrates critical realism; and critical realism is the absent methodological fulcrum of Marx's work" (Bhaskar 2011b: 143). Bhaskar drew on Marx not only as regards realism and the existence of a deep domain but also in relation to concepts such as open systems, tendencies, retroduction and abstraction (see Chapter 5).

Core concept: Marxism

Marxism is a diverse and developing tradition revolving around the oeuvre of Marx and a growing number of readings and extrapolations of his work. Marxist scholarship typically involves analysis and critique of capitalism. While Western Marxism peaked in the 1970s, the last two decades of the twentieth century were marked by widespread disillusion and disintegration. Subsequently, however, new generations, historical circumstances and encounters led to new Marxist projects and self-reflexive debate. Today, a revitalised Marxism is a major intellectual and political paradigm incorporating a wide variety of projects in which the concept of capitalism often goes together with second-order specifications such as 'postmodern capitalism', 'cognitive capitalism' or 'neoliberal capitalism', thus underlining specificities of contemporary capitalism and how it differs from earlier forms. Marxism has always been characterised by holistic ambitions, but there is a tendency for Marxists to prioritise one level of abstraction: the philosophical, the theoretical or the practical. Today three overall forms of Marxism can be delineated: classical Marxism, post-Marxism and neo-Marxism. These entail conflicting views on the status and limits of Marxism (Nielsen 2002, 2007d).

The links between critical realism and Marxism have been explored by several scholars, most of whom seem to take the position that the two traditions can be fruitfully combined (for various takes on this question, see, e.g., Collier 1989; Brown et al. 2002; Herring and Stokes 2011). The relationship between critical realism and Marxism is made complex by the fact that contemporary Marxism is open and under continuous development, consisting of a variety of very different perspectives and positions (Nielsen and Morgan 2006). Critical realism has been brought together with many of these (see, e.g., Jessop 2002; Jäger et al. 2016; Buch-Hansen and Staricco 2018).

Critical realism in action: Corporate networks

In *American Grand Strategy and Corporate Elite Networks*, a book that relates to critical realism, Bastiaan van Apeldoorn and Naná de Graaff (2016) explain the evolution of American grand strategy. They understand grand strategy to relate to both geo-economic and geo-political (including military) strategies to advance a state's long-term interest. The book argues that American grand strategy has, ever since the late nineteenth century, revolved around liberal expansionist goals, i.e., aspirations to establish a global hegemony rooted in 'free markets' to which global (and especially American) capital has unrestricted access. It finds that throughout the post-Cold War era, connections have existed between governmental 'grand-strategy makers' and America's corporate elite – connections that help explain continuities and changes in US grand strategy: from a strategy of neoliberal globalisation under the Clinton administration, over a neoconservative strategy under the Bush administration to a strategy of imperial restoration under the Obama administration. Applying a critical political economy perspective, and using various methods such as social network analysis, process tracing and content analysis, the book maps and analyses the corporate networks into which American grand strategy making is embedded.

While Bhaskar was a Marxist, other leading critical realists such as Archer, Sayer and Lawson do not regard Marxism to be a superior social-theoretical perspective. Sayer (1995: 252) takes a position that is 'post-Marxist'. Lawson associates critical realism with Marx and Marxism, but also – and to the same

extent – with non-Marxist thinkers such as Keynes and Veblen. In addition, countless research publications make use of critical realism without engaging with Marx or Marxist thinking.

Overall, the prevailing view among critical realists seems to be that critical realism is consistent with and can underpin a broad range of *critical* traditions in the social sciences. A case in point is feminism. Feminism is a social scientific tradition and political movement that addresses gender inequalities. According to feminists, men enjoy privileges in most if not all societies that women of the same class and ethnical group do not enjoy. In many cases, women are subordinated to men. The political goal of feminism is to bring about equity between the sexes. Lena Gunnarsson et al. (2016: 433) observe that "the field of critical realism has remained decidedly 'masculine' in nature, both in the sense that men dominate it, and in terms of the issues with which critical realists have most commonly concerned themselves". Yet Gunnarsson et al. also point to various indications that a potential shift is taking place, one of them being the appearance of several works relating critical realism and feminism. As with the relationship between critical realism and Marxism, the relationship between critical realism and feminism is complex and multifaceted, one reason being that feminism, like Marxism, is a dynamic tradition with a variety of schools and perspectives. Some of these perspectives are, of course, more influential than others. Postmodernism is the hegemonic perspective in gender studies and feminism, whereas critical realism occupies a less prominent place (Gunnarsson 2014: 18; Gunnarsson et al. 2016: 433). Most critical realist contributions to feminist research thus engage with postmodernism (e.g., Lawson 1999; Parr 2015; Sweet 2018).

Gunnarsson argues that the "constitutive claim" of feminism "is that there is a patriarchal power structure behind the surface of disparate phenomena and experiences, which is intangible but can be theoretically inferred from its effects" (2014: 13). This view renders feminism compatible with a critical realist approach (see also van Ingen et al. 2020). According to Caroline New (2007), feminist theory was in fact "implicitly realist" from the mid-1960s to the early 1980s. In this period, feminists used what critical realists call explanatory critique to bring into focus discrepancies "between the real capacities and needs of women and those attributed to them by official ideology and policy" (2007: 204). Feminist researchers, in other words, sought to expose specific beliefs about women to be untrue and ensuing practices to be unjust and harmful. Explanatory critique is based on the notion that it is possible to obtain (fallible) knowledge of the nature of a social reality that *is* in a certain way beyond how it is being conceptualised by those being studied. This notion has however been brought into question in postmodernist feminism, hereby undermining

"explanatory critiques as a tool of feminist political argument" (New 2003: 64). Taking a postmodernist position, the researcher cannot deal with reality 'as it is'; only with representations of it. The researcher's role thus becomes to represent the viewpoints of those that are being studied as accurately as possible, whereas the veracity of viewpoints cannot be assessed (see also Parr 2015). Against such a position, a feminism grounded in critical realism insists on social structures and mechanisms having causal powers and effects regardless of whether we know of, or believe in, them. On this view, for example, "whether or not 'men's rights' groups believe that gender inequality exists has no bearing on whether gender inequality actually exists. We could all decide tomorrow that gender inequality is no longer an issue, yet it would continue to operate" (Sweet 2018: 224).

Critical realism in action: Contradictions of Love

In *The Contradictions of Love,* Gunnarsson (2014) notes the existence of a gender hierarchy in the Western world, entailing that women are subordinated to men across classes, places and races. To explain this hierarchy, Gunnarsson draws on a theory according to which the power of men is based on their exploitation of women's capacity for love, their love power. She refers to various empirical studies showing that in heterosexual relationships women tend to give more love to men than vice versa. Identifying the mechanisms resulting in this asymmetry, she notes that we all need love because this is what empowers us as persons. Yet the love women can get by adhering to the particular expectations that are built into the feminine position also disenables them as persons, inasmuch as it is based not on women being valued in their own right but on them being useful to others. Women's need for love make them accept exploitative conditions, which ultimately undermine their worthiness. Gunnarsson argues that the key mechanism resulting in female unworthiness is not the failure of men to love women, but women's failure to show themselves love. She suggests that women's socio-sexual emancipation hinges on them turning towards one another while seeking out and cultivating in themselves the capacity for self-love to become less exploitable. *The Contradictions of Love* draws on concepts and arguments derived from 'basic critical realism', dialectical critical realism and the philosophy of meta-Reality.

Summary

- Whereas basic critical realism is a philosophy of science perspective, Bhaskar's 'dialectical critical realism', 'transcendental dialectical critical realism' and 'philosophy of meta-Reality' are much broader philosophical systems.
- Many critical realists appreciate the clear division of labour between science and philosophy that is established in Bhaskar's early works. They do not consider spirituality to sit comfortably with critical realism, which is one reason why they are critical of the later phases in Bhaskar's thinking.
- While critical realism has made inroads into a very wide range of fields in the social sciences, its overall status remains that of a contender perspective.
- Critical realism can be fruitfully combined with various traditions in the social sciences, not least traditions with critical-emancipatory aspirations such as Marxism and feminism.

9 What Critical Realism Is (Not)

Critical realism is mainly a philosophy of science perspective, but it is embedded in a context, which also contains research and ethics, theory and practice. The perspective emanates from transcendental arguments and immanent critiques and has frequently been synthesised with other perspectives. Capturing what critical realism *is*, what it *can be* and what it *is not* thus entails a delicate balancing act in which issues of delineation – separating it from what it is not – inevitably become central. That this is the case has become increasingly clear in recent times, as developments, openings and explorations of boundaries exist side by side with the consolidation of basic understandings and negative delineations. The purpose of this concluding chapter is thus to recap what critical realism is, both *positively* by summarising its basic features and *negatively* by identifying the absolute limits separating it from alternative perspectives such as positivism and postmodernism.

CRITICAL *REALISM*, *CRITICAL* REALISM

Critical realism provides a set of ontological, epistemological and methodological pointers in a complex holistic perspective. As regards the question of realism, critical realists take the position that a reality exists independently of discourses and knowledge of it. Critical *realism* is thus in opposition to idealism. Specifically, it is based on a depth realist ontology (see Chapter 3). Reality is held to be open, differentiated, structured and stratified, entailing the existence of a deep domain. This domain is not directly accessible to the senses. It, for instance, contains causality and social structures that facilitate – and are reproduced or transformed by – human agency. In critical realism, agents, structures and culture are held to constitute irreducible strata in the social domain between which dynamic interplays take place over time. The dualisms relating to agency, structure and culture are but a few of the dualisms critical realism seeks to overcome: transcending dualisms is a general and essential ambition of this perspective (see Chapter 4).

In addition to this ontology, critical realists consider it the task of the (social) sciences to produce knowledge of the deep structures and mechanisms that cause social phenomena to happen. Phenomena are typically considered to have multiple causes, and critical realist methodology revolves around the ways in which those causes can be identified. To this end, retroduction is a crucial mode of reasoning and abstraction is held to be to social science what experiments are to natural science (see Chapter 5). According to critical realism, then, science involves movements from empirical phenomena to deep causes – and back again. This movement is, for instance, exemplified in Chapter 6 concerning neoliberalism and the climate crisis.

Critical realists ascribe great importance to differences between and similarities of nature and society. They promote interdisciplinarity within both the social sciences and across the sciences more generally. Works on neoliberalism and the climate crisis, and their interrelatedness, provide good illustrations of this interdisciplinary perspective (see Chapter 1). It is also important to stress that even though critical realism, for instance, advocates conceptual precision and the use of qualitative methods in social science, it is above all a pluralist perspective. It is recognised that it is the nature of the phenomena we study that, together with our research question, should determine what theories and methods we use. It is not something that can be determined at the level of the philosophy of science. A clear division of labour between the philosophy of science and social science is, in other words strived for: whereas social science revolves around studying phenomena in the social world using substantive theories, methods and data, the role of critical realism is to underlabour for such research practices. Promoting explanatory critique, *critical* realism also calls for the social sciences to relate critically to the objects they study. Again, it is for social researchers to determine what to criticise and how: critical ambitions need to be free and open, and as such, they cannot be put on a (philosophy of science) formula. Another transboundary issue that enters philosophy of science reflections with critical realism is the connection between research and ethics, pertaining to convictions as to what constitutes a good society and a good life (see Chapter 5).

BASICS AND BEYOND

The basics of critical realism, as outlined in Chapters 3 and 4, constitute the core of critical realism. This is what critical realism is. Beyond this core exists a space in which the core informs research and in which developments of basic critical realism unfold, often via syntheses with other perspectives. This space

comprises what critical realism can potentially be. Bhaskar's 'dialectical critical realism' falls into this space (see Chapter 8). So does our analysis of neoliberalism and the climate crisis (see Chapter 6). While consistent with basic critical realism, it does not form part of it. It is an example of what an analysis informed by critical realism *can* look like. But it reflects the disciplinary backgrounds, research interests and ethics of us, the authors; an analysis of the very same themes conducted by other critical realists could well look substantially different.

Critical realism is a perspective that provides constructive pointers and guidance to researchers. At the same time, it is also a perspective that is under continuous development. It can be seen as a spectrum with both inclusive openings and absolute limits. Beyond these limits, we find that which critical realism is not, including the competing perspectives dealt with in Chapters 2 and 7. Critical realism is based on immanent critiques of such perspectives. Through these critiques, certain notions are incorporated, such as the notion of meaning from hermeneutics, while absolute limits are at the same time established. Critical realism provides a radical critique of – and strongly diverges from – positivism and critical rationalism. At the same time, it constitutes an alternative to hermeneutics, postmodernism and various forms of radical social constructionism. Certainly, there are plenty of possibilities for critical realists to engage in constructive dialogues with postmodernists, hermeneuticists and others, but there are also insurmountable barriers between critical realism and these competing perspectives.

Other perspectives' reductionist or deconstructionist ways of relating to dualisms as well as the empty or flat realisms underpinning them are examples of such barriers. In addition, positivists downplay the importance of interpretation, meaning, discourses and unobservable structures in social reality, while also failing to acknowledge that this reality is always developing and to some extent open. They are blind to contingency and erase the social conditions under which knowledge is produced (see Chapter 2). As for postmodernists, they not only reject that reality has a deep domain; they also abstain from saying anything about the nature of the world existing outside discourses. They empty the reality that knowledge relates to and relativise knowledge and truth to discourse. Judgmental rationality is abandoned. While critical realists believe that social reality is open and, in many respects, discursive, they disagree with postmodernists that reality is radically open and exhausted by the discursive (see Chapter 7). In the ontology of critical realism, the incorporation of objective structures and causality somewhat limits the degree of openness and the extent of the discursive. Moreover, it is recognised that no knowledge can rise above the circumstances under which it has been produced (epistemic

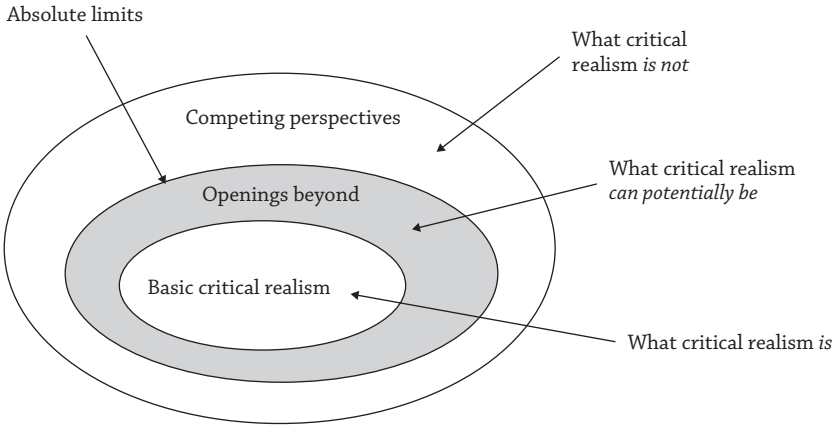

Figure 9.1 Critical realism: basics and beyond

relativism), while it is insisted that it is possible and scientifically crucial to assess knowledge *in relation to reality* (judgmental rationality). Overall, then, while critical realism is open and evolving, anything does not go: there are absolute limits as to what critical realism can be (Figure 9.1). These limits are non-negotiable. If they are not upheld, critical realism vanishes into thin air.

Faced by the complexity and mutability of reality, the sciences lag behind and can deliver no more than partial accounts that are open to revision. The realism in critical realism is based on the insight that there is a fundamental difference between reality and our theories and beliefs about it. No one, critical realists included, is able to directly and infallibly read reality as it is. Critical realists are thus acutely aware that their beliefs and arguments can turn out to be wrong or can be made redundant by societal developments. Critical realism is basically premised on ideas about what reality is currently like. Thus, if reality changes fundamentally, those ideas will have to be revised as well. Critical realists believe that overall critical realism is currently the most convincing philosophy of science perspective out there, but they also recognise that it is an incomplete perspective that can be improved upon and which is thus by no means beyond criticism. This combination of critique, engagement and openness constitutes a valuable prerequisite for doing social scientific research. As we have sought to illustrate in this book, relating, for instance, to the examples of neoliberalism and the climate crisis, critical realism has a lot to offer those studying the social world. Our hope is that this book will serve to inspire reflected practices informed by critical realism within and beyond the social sciences.

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