

assigned to it – and offering examples of the use of theory – by the key social research traditions (positivism, post-positivism (critical realism), interpretivism and post-modernism). The final section discusses the most common uses of theory in research, which ranges from metatheory, through middle-range theory to grounded theory. Each of these will be illuminated by way of an example of how they are employed in research.

► Introducing theory

The first thing to remember is that you should not use theory for the sake of it. One common mistake in students' projects is a lack of connection between the theoretical section, the purpose of which is to shed light on the empirical reality, and the actual research undertaken, with the result that both sections could, in fact, stand on their own. The purpose of the theoretical part of a dissertation, doctorate or project – and the purpose of good theory – is precisely to give a sense of order to the empirical section, so that the two parts need to be inextricably linked; otherwise, you defeat the object of abstraction, which is to simplify and not complicate further the understanding of complex social phenomena. This does not, of course, apply to purely theoretical projects, which would have to be divided up somewhat differently. Whether to use a specific theory or not will depend on your discipline and your object of study. As always, there is a balance to be found between telling a story of an isolated case with no deeper understanding of the underlying processes of cause and effect, and overburdening the reader by stifling the content with elaborate theoretical considerations. The choice of whether to theorise or not to theorise is not as straightforward as it may at first seem, because all research is necessarily embedded in some form of theoretical framework. However, there is pressure on you to use a specific 'theory' because it looks good, sounds sophisticated and indicates that you can get your head around the hard stuff. However, a 'bolted-on' theoretical section, which is not integrated or interlinked with the empirical section, is likely to end in a failed dissertation or a referred thesis at the viva stage or, worse still, complete failure!

There is no general consensus on the role of theory in research precisely because of the different ontological starting points of researchers. However, most academics attempting to *explain* complex social phenomena – as opposed to *describing* them in detail – agree that some form of framework is necessary to assist in both selecting and

prioritising certain factors over others and in showing relationships between certain concepts at an abstract level. Thus, so the argument goes, by abstract connection of theoretical concepts *with observation*, the concepts gain in empirical meaning. This is why many researchers insist that empirical evidence ought to be tangible, measurable or observable, as much theory in the human sciences attempts to link observables with other observables, except, as we have seen, those based on either a 'realist' or 'anti-foundationalist' ontology, which seek to uncover structures and mechanisms that cannot always be seen. This simplification of reality is deemed by many as necessary if we are to achieve any kind of overview and weighting of certain variables and their effect on others. Gerry Stoker neatly sums up this viewpoint by suggesting that theory

helps us to see the wood for the trees. Good theories select out certain factors as the most important or relevant if one is interested in providing an explanation of an event. Without such a sifting process no effective observation can take place. The observer would be buried under a pile of detail and be unable to weigh the influence of different factors in explaining an event. Theories are of value precisely because they structure all observations. (Stoker 1995: 16–17)

Structuring our observations in a long piece of work is seen as vital if we are under time constraints. Students rarely have the luxury of simply gathering information and data in the hope of discovering specific patterns and relationships between phenomena. It is more likely that their ideas will already be informed by previous research and theories, discussions with peers and supervisors, and 'gut' feelings which all help, at an early stage, to identify general research questions (see below for a discussion of 'inductive' and 'deductive' research).

Put simply, 'Theories are nets cast to catch what we call "the world": to rationalise, to explain and to master it. We endeavour to make the mesh ever finer and finer' (Popper 2000: 59). Without theory, or at least some form of classificatory system, it would be extremely difficult to know which data and facts to collect in the first place. Even researchers setting out to generate theory from fieldwork have to start with some assumptions based on a certain level of abstraction. Another thing to note about theory at this early stage is that it comes in many diverse forms, ranging from grand theory and middle-range theory to grounded theory (see below for a thorough examination of types of theory and its uses in research).

Remember, too, that theories are, of course, bound up with certain ways of seeing the world, so you need to remain vigilant and on the lookout for interesting social phenomena which your theories may actually steer you away from.

Let us now turn to the common or dominant understanding of just what theory is and what it is good for.

► The traditional view of theory

Reach once again for your trusty dictionary – the one that failed to help us clarify 'ontology' and 'epistemology' – and you will find a definition of theory similar to the following: theory is 'a scheme or system of ideas or statements held as an *explanation* or *account* of a group of facts or phenomena... a statement of what are held to be general laws, principles, or causes of something known or observed' (*Shorter Oxford English Dictionary*, cited in Blaikie 2000: 141, my emphasis). This definition is clearly based on a traditional view of the natural sciences. It suggests that a theory is an *explanation* or *account* of a group of facts. As we shall see, different research traditions will understand theory as either explanatory or descriptive but rarely both.

In general, theories are understood as abstract notions which assert specific relationships between concepts. The abstract ideas and propositions contained in theory are either tested in fieldwork by the collection of data or derive from the data itself. Following Popper (1959, 2000: 40–3), theory ought to be 'falsifiable'; that is, it 'must be possible in principle to falsify a theory' (Gilbert 2001: 20). If it is not possible to falsify, then it is by definition not a theory (ibid.: 20). (As we shall see below, the concept of falsifiability is not without problems, if we understand 'theory' in a broader sense than that sketched here.) A good theory will be generalisable – and, if possible, predictive – and able to be employed in different contexts to the original.

In the strictest sense, a theory consists of a 'system of statements that encompass a number of hypotheses or laws' (Schnell et al. 1999: 52). Laws in this case relate more to natural-science subjects, where tests are replicated again and again to produce the same results. There are very few instances of such laws in the 'messy' social sciences and humanities, as the study of people, their institutions, their environment and their creative output is a very complex task, and one which is made more difficult by the multitude of factors that go into making up social phenomena. Instead, sets of hypotheses link together to create a theory.

In actual research, scholars usually test these hypotheses rather than complete theory itself (Silverman 2000: 78), although, as Hay (2002: 8) shrewdly notes, it is 'impossible to test single hypotheses in isolation from others', as all are related to further presumptions. Hypotheses are traditionally linked to the *deductive* method of research (Blaikie 2000: 16) yet this distinction is only of limited use, as we shall discuss below.

As we saw in chapter 3, a hypothesis itself is a proposition, set propositions or an assumption put forward for empirical testing; a testable proposition about the relationship between two or more events or concepts. Hypotheses consist of (at the very least) an independent and dependent variable and usually contain a causal proposition. They are made up of concepts – the building blocks of theories – which have been turned into variables (this process is usually termed 'operationalising').

The remainder of this chapter will problematise the above conception of theory in social research by turning to perhaps the most important question of all: the role of theory in social research.

► The role of theory in social research

The above understanding of theory fails to take into account three factors. First, all research is necessarily based on some assumptions about the nature of social reality and what we can know about it. Ben Rosamond correctly states, 'we are all' – whether we like it or not – 'informed by theoretical perspectives, even if we adopt an avowed non-theoretical posture' (2000: 4–5). This is what we discussed in chapter 4 – the starting point of all research. Thus, 'theory' permeates all research. Secondly, the fact that different research traditions have different understandings of theory means that the narrow positivist definition presented above is simply one of many legitimate definitions of theory (see below for an outline of how positivists view the role of theory in research). Thirdly, the variety of uses of theory in social research adds another dimension to the problem of its definition, for it can be grand theory or grounded theory, metatheory or middle-range theory. It is to these factors that we now turn.

► Research paradigms and the role of theory

If you are to reflect convincingly upon the theory which inevitably informs your work, you need a clearer understanding of its meaning.

and its purpose in the study of social phenomena. The terms in this section are used to denote very broad research traditions within which a wide variety of perspectives exist – outlined in chapter 5 – that are qualitatively different from one another. The aim now is to introduce you to, and offer an outline of, the role of theory within these positions.

The positivist paradigm

The rationalist side of positivism applies a deductive research strategy and sees theory as a tool to 'order, explain and predict facts' (Danermark et al. 2002: 116). A theory is seen by researchers working in this paradigm as useful only if it can generate testable (and preferably falsifiable) hypotheses (Hay 2002: 37). The most hard-nosed among rationalists would understand the role of theory as being predictive and consisting of interconnected causal laws. Thus, theory for rationalists serves to 'simplify an external reality as a condition of the generation of predictive hypotheses' (Hay 2002: 39).

Box 29 Positivist theory: rational choice

A key example of such a theory in this tradition is Rational Choice Theory (RCT), used most frequently in sociology, political science, economics and international relations. RCT, for example, 'assumes that all political actors maximize their own personal utility, or self interest, when choosing between alternatives' (Landman 2000: 15). RCT should be looked upon as an approach to social phenomena and not as a specific theory as such. Nonetheless, the core assumptions that underlie the mainstream version of RCT (as described in chapter 5) are similar and will be similar across the wide variety of applications of this type of analysis.

Behaviouralism, on the other hand, while sharing many of the assumptions found under the broad church of positivism, employs an inductive research strategy, by deriving theories and generalisations from empirical evidence. Theory for this group is a way of recording the patterns directly observed in empirical data. Theory is not used to direct initial research by generating hypotheses to be tested in the field; rather, theory is built out of the observational data recorded by these researchers (see Hay 2002: 41–5 for a thorough overview of behaviouralism).

The (critical) realist paradigm

Realism as an ontological position covers a very wide range of perspectives from a number of academic disciplines. However, in general it can be said that realists tend to use theory to guide their research and to interpret the facts they find. Like positivists – but unlike interpretivists – most realists believe in the possibility of causal explanation (Sayer 2000: 6; Marsh and Furlong 2002: 30; Delanty 2000: 129). The purpose of theory in this tradition – and in particular for the more recent variety of approach termed 'critical realism' – is to uncover the deep underlying structures of social reality by 'identifying generative mechanisms' (Delanty 2000: 130–1) that cannot necessarily be seen but can be identified (Hollis and Smith 1990: 207). For critical realists, reality does not present itself as it really is; thus in order to 'reveal the structured reality of the world we inhabit, we must cast our gaze beyond the superficial world of appearances, deploying theory as a sensitising device to reveal the structured reality beneath the surface. It is this "depth ontology" which underpins critical realism' (Hay 2002: 122).

Box 30 Theory for realists

for the realist, a scientific theory is a description of structures and mechanisms which causally generate the observable phenomena, a description which enables us to explain them. (Keat and Urry 1978: 5, cited in Danermark et al. 2002: 120)

The term patriarchy offers an instructive example of a realist approach to social phenomena. Patriarchy, according to its Marxist variant, 'argues that material structures determine relations between men and women' (Cannell and Green 2001: 592). These structures are produced by capitalism and 'function to serve the interests of capital' (Abercrombie et al. 1984: 155), and, while it is difficult to observe directly the underlying causes of patriarchy, it is possible to point to its consequences in society. Take, for example, the percentage of professors at your university who are female: it is very likely that the percentage of male professors is well over double that of the females. There could be a number of explanations for this, but it is quite clear that the committees charged with promotion to professorships are made up overwhelmingly of male, middle-class men. The composition of such committees could be

understood as an end result of a process of structural patriarchy that might not otherwise be visible.

The interpretivist paradigm

Researchers working in this tradition tend to see theory as deriving from data collection and not as the driving force of research. According to interpretivists, theory helps us understand the social world (they tend not to believe that theory can be predictive) by describing and interpreting how people conduct their daily lives (Neuman 2000: 73). Thus, as the study of social phenomena is different from that of the natural sciences, using deductive theory (i.e. theories that inform research at the outset and hypotheses which stipulate the type of evidence we ought to look for) is not adequate to capture the complexities of social phenomena. Many interpretivists would not subscribe to the notion of 'testing' a theory in the field, but would rather be looking to 'build' theory from the data (see, in particular, 'grounded theory' below).

Box 31 Theory in the interpretivist tradition

A good example of a theory in this tradition is Max Weber's *Protestant Ethic and the Spirit of Capitalism*, in which he highlights the link between religious ideas and economic institutions. Calhoun et al. 2002b: 168 summarise this as follows:

Weber argues that a particular form of ascetic Protestantism fostered a 'spirit' of modern capitalism, marked by a ceaseless obligation to earn money and to reinvest for profit.... The emergence of Protestantism in Europe was partially related to economic factors, Weber argued, but this could not explain the relationship between ascetic Protestantism and capitalism in the 'backwoods' of early America.... In this case, a religious idea motivating the actions of individuals had a major world-historical effect on the economic structure.

The post-modernist paradigm

It is questionable whether post-modernism is a research paradigm or not. It is certainly an ontological position which views the 'core' ontological and epistemological positions in the human sciences with

some scepticism. Nonetheless, its recent ascent in the fields of cultural studies, sociology, political science and international relations means we need to pay attention to what those researchers, who identify themselves as post-modernist, say. Post-modernism could be summed up as a purely theoretical narrative in its own right. Post-modernists would probably not wish to use the same language as the 'mainstream' epistemological positions introduced above in the first place; instead they would 'deconstruct' the assumptions and terminology they employ. Researchers working in this tradition certainly do not believe in a 'predictive' role for theory in research (Crotty 1998), although they do suggest that theories (especially influential ones) can become self-fulfilling prophecies. Finally, post-modernists do not believe that 'grand theories' (for example, Marxism and functionalism; see below) have any relevance today (Jones 2002: 224; see Chapter 5 for an explanation of 'post-modernism').

► Different uses of theory

You need to be aware of the variety of theories used in social research, ranging from metatheory, grand and middle-range theory to grounded theory. The difference between these theories is their degree of abstraction, their scope and the level of social reality they deal with. Figure 3 below sets out these theories on a continuum running from 'abstract' on one end to 'empirical' on the other. This is an artificial breakdown of macro- and micro-theory intended only as an overview of the key uses of theory in the human sciences.



FIGURE 3 DIFFERENT USES OF THEORY IN SOCIAL RESEARCH

Metatheory

This term pertains to the foundational assumptions and philosophical underpinnings of *all* research. As I have outlined above, the key

epistemological positions in social science – themselves based on specific ontological assumptions – would be included under this broad heading (see also Danermark et al. 2002: 118). Examples in this category are an interpretivist epistemology founded on an anti-foundationalist ontology and a positivist epistemology based on a foundationalist ontology. Ontological assumptions – upon which all theories are based – are not in and of themselves verifiable or falsifiable (Grix 2002b; Hay 2002). Some scholars have argued that ‘metatheory’ ‘should be settled before theorizing begins’ (Blaikie 2000: 154). This is true in as much as scholars and students need to be explicit about their ontological and epistemological assumptions, as it is these which inform the rest of the research design, including the level, reach and importance of theory.

Grand or formal theories

Grand theories are generally rather speculative and abstract (Danermark et al. 2002: 125) and are ‘intended to represent the important features of a total society’ (Blaikie 2000: 144).

Box 32 Grand theory – functionalism

A good example of a grand theory is that of ‘functionalism’. Functionalism, one of the key perspectives in sociology (see chapter 5 for an overview), suggests that society consists of several parts that work together to achieve stability and solidarity (Giddens 2001: 16). It is the job of sociology to study these individual parts, and their relationship to one another and to society as a whole. Talcott Parsons’s attempt at a ‘theory of social systems’ fits into this category (Parsons 1948: 156–63, reprinted in Calhoun et al. 2002b: 359–65). Parsons went on to describe society as being made up of three interdependent systems: a ‘cultural’, a ‘personality’ and a ‘social’ system (ibid.: 343). It is not difficult to see how employing such a theory in actual research might be difficult, given its vast scope.

In contrast to the more practical ‘middle-range’ theories, the theory informing such a perspective attempts to encapsulate a whole society. Such theories tend to be transhistorical; that is, they are not strictly limited to time and space.

Middle-range theories (or ‘substantive theories’)

Middle-range theories, probably the most commonly used in social science research – and probably the most likely to be used by students – are limited to, and developed for, a specific area of social concern (Neuman 2000: 51); for example, the labour process (Bryman 2001: 6) or race relations. Robert Merton, who coined this term, believed that middle-range theory built on the work of classical theoretical formulations (Blaikie 2000: 148).

Middle-range theories should be specific enough to be used to guide empirical work, but broad enough to cover a wide range of different phenomena (Giddens 2001: 664).

Box 33 Middle-range theory

Durkheim’s theory of suicide (originally published in 1897) is probably one of the most widely cited examples of a theory of the middle range. Basically, Durkheim sets out to show how the social world impacts on the personal and individual experience of suicide. He discovered certain ‘patterns’ among specific socio-economic groups (male, female, wealthy, poor, etc.), noting the differences in suicide rates. He also discovered that the rate of suicide varied, with lower figures during wartime and higher rates during times of economic change. The result of these findings was the conclusion that social forces external to the individual affected rates of suicide (based on the summary in Giddens 2001: 10–11).

Grounded theory

This term, coined by B. G. Glaser and A. L. Strauss in the 1960s, is generally associated with inductive research strategies. **Grounded theory** can be understood as an attempt to close the gap between theory and research (by ‘grounding’ theory in empirical data). Researchers seek relationships between concepts among the data they have collected and ‘code’ the data shortly after initial data collection and interpretation. The idea is to approach the data *without* any preconceived categories or codes. Grounded theory does not start out with hypotheses, but develops them after collecting initial data. This type of research involves the interpretation of data in their social and cultural context and sets out to

'construct abstract theory about that data, which is grounded in the data. The concepts which the theory will use are not brought to the data and are not likely to be obvious in the data' (Punch 2000a: 218).

Box 34 The aim of grounded theory

According to Holloway's useful book of concepts, the main aim of grounded theory is:

the generation of theory from the data, although existing theories can be modified or extended through this approach. It emphasises the development of ideas from the data like other qualitative methods but goes further than these. Grounded theory researchers start with an area of interest, collect the data and allow the relevant ideas to develop.

Rigid preconceived ideas prevent development of the research; imposing a framework might block the awareness of major concepts that emerge from the data. Grounded theory is especially useful in situations where little is known about a particular topic or problem area, or where a new and exciting outlook is needed in familiar settings. (Holloway 1997: 80-7)

Grounded theory is known more for its *process*, i.e. how it develops theory via carefully planned steps (Crotty 1998: 78), than for actual applicable theories themselves (see Bryman 2001: 387-404 for a full exposition) and can be looked upon as a '*general methodology* for developing theory that is grounded in data systematically gathered and analyzed' (Strauss and Corbin 1998: 158).

Box 35 Summary of what theory is and the role it plays in research

Now, it is obviously difficult to give a succinct summary of just what theory is and the role it plays in research given the numerous viewpoints and uses of theory highlighted above, not all of which are compatible with one another. However, I can offer some general points relating to theory and its purpose in your projects:

- To give structure and direction to your endeavours by pointing you to specific 'variables' (be aware of the things that you are being pointed away from).

- Theory is a specific language with which to describe and explain the social world we study.
- Theory is an abstraction of reality, in which concepts – with referents in the 'real' world – are related to other concepts, offering us tentative hypotheses or explanations.
- Different uses of theory exist and operate at different 'levels', for example, 'grand theory' and 'middle-range theory'.
- All research is underpinned by 'metatheoretical' assumptions; even if we do not believe in theory at all, we are still taking a 'theoretical' stance on research.
- A multitude of specific theories operate within these metatheoretical frameworks.

► Inductive and deductive theory and research

The final section of this chapter turns your attention to the perennial problem of induction vs. deduction. Very simply, induction refers to 'the process by which conclusions are drawn from direct observation of empirical evidence' (Landman 2000: 226). These conclusions are then fed into the development of theory. Such research is not hypotheses-driven; instead, theory is generated and built through the analysis of, and interaction with, the empirical data. The researcher looks for patterns in the data and, in particular, relationships between variables. Generalisations in this type of research are sought from the *specific* to other, wider contexts, as opposed to deductive research strategies (see below). This type of research and theory is usually, but not exclusively, associated with the interpretivist research tradition and qualitative research strategies.

Deductive theory and research, on the other hand, is a type of strategy in which theory informs research at the outset and hypotheses dictate what evidence the researcher looks for. Data are then collected to confirm or falsify the hypotheses. Deductive theories, in contrast to inductive theories, 'arrive at their conclusions by applying reason to a given set of premises.... For example, the rational-choice perspective in political science assumes that all political actors maximize their own personal utility, or self-interest, when choosing between alternatives' (Landman 2000: 15). A further classic example of a **deductive research strategy** is that advocated by the American political scientists, King, Keohane and Verba (1994: 29; emphasis added):

Any theory that does real work for us has implications for empirical investigations; *no empirical investigation can be successful without theory*

to guide its choice of questions... social science conclusions cannot be considered reliable if they are not based on theory and data in strong connection with one another and forged by formulating and examining the observable implication of a theory.

King et al. seem to imply that there is no room for an **inductive research** strategy. However, like other doubtful dichotomies in the human sciences – for example, that between quantitative and qualitative research methods and research strategies discussed in chapter 7 – the distinction between inductive and deductive research and theory is useful only up to a point. It is good to distinguish between the underlying logic of research, yet the distinction between inductive and deductive theory is made more complicated if we consider the following. If I take a newly-formed grounded theory as the starting point for my research project, am I now using a theory formed inductively or deductively? Or is it, as I suspect, simply not possible (nor desirable?) to have no *a priori* assumptions before I begin my research? Is not all research to some extent deductive? Here I agree with Ragin (1994: 47), who suggests that, in reality, most research uses both induction and deduction, as there is a necessary *interplay* between ideas and evidence in each research process (see also Gilbert 2001: 20 and May 2001: 34–5).

Box 36 To deduct or to induct?

While the deduction – induction distinction is a simple and appealing way to differentiate kinds of social research, most research includes elements of both. For this reason some philosophers of science argue that all research involves retrodution – the interplay of induction and deduction. It is impossible to do research without some initial ideas... almost all research has at least an element of deduction.... Research involves deduction because there is typically a dialogue of ideas and evidence in social research. The interaction of ideas and evidence culminates in theoretically based descriptions of social life. (Ragin 1994: 47)

It is this reflexivity – moving constantly between concrete data and abstraction and back again – that you ought to strive to achieve in your studies.

► Summary

This chapter has offered a discussion of the meaning and purpose of theory in social research. To summarise:

- I argued that you do not need a *specific* theory to undertake research, although *all* research is underpinned by metatheoretical assumptions.
- I introduced the traditional understanding of 'theory', which has been influenced by the positivist research tradition, which in turn has been heavily influenced by the 'scientific method'.
- I then problematised the notion of 'one' understanding of theory and its role in research by introducing different research traditions and their use of theory.
- I briefly discussed the variety of theories in research, all of which have different purposes.
- Finally, I introduced you to yet another dichotomy in research, that between 'inductive' and 'deductive' research, suggesting that while the term may be useful to distinguish between certain research strategies, the vast majority of research combines both induction and deduction.

► Essential reading

Blaikie, N. (2000) *Designing Social Research*, Cambridge, Polity Press.
 Gilbert, N. (ed.) (2001) *Researching Social Life*, London, Sage, chapter 2.
 Jones, D. (2002) 'Contemporary Theorising', in I. Marsh (ed.), *Theory and Practice in Sociology*, Harlow, Prentice Hall, pp. 220–56.

► Further reading

Bryman, A. (2001) *Social Research Methods*, Oxford, Oxford University Press.
 Neuman, W. L. (2000) *Social Research Methods. Qualitative and Quantitative Approaches*, Boston, MA, Allyn & Bacon, 4th edn.

