2

Theory and social research

This chapter explores the relationship between theorising about society and researching society. I argue that:

- The role of the social scientist is to theorise—not to do social arithmetic.
- Theories must be rigorously tested in the real world they purport to describe.
- Data collection and analysis must be fashioned by theoretical ideas. Social research should not be the endless and unguided collection of bits and pieces of information.
- Theorising and collecting research data should be interdependent components of 'doing social science'.

This chapter provides some guidance on how to begin to combine theoretical questions with empirical research.

THE INTERACTION OF THEORY AND RESEARCH

Observations require explanation but equally explanations need to be tested against the facts. It is not enough simply to collect facts. Nor is it sufficient simply to develop explanations without testing them against facts. Fundamentally sociological research involves a constant interplay between observation and explanation, collection of further facts to test the explanation, a refinement of the explanation and so on.

The development of good explanations involves two related processes: theory construction and theory testing. These two processes are not alternative ways of arriving at good theories but represent two stages with different starting points (see Figure 2.1).

Theory construction is a process which begins with a set of observations (i.e. description) and moves on to develop theories of these observations. It is also called grounded theory (Glaser and Strauss, 1967 and Strauss and Corbin, 1994) because it is based on observation—not simply armchair speculation. Others call it *post factum* theory (Merton, 1968) or *ex post facto* theory since the theory comes after the observation rather than before. The reasoning process that is used in theory building research is called *inductive* reasoning and involves starting with particular observations and drawing out a theory from the observations.

Theory testing differs in that it starts with a theory. Using the theory we predict how things will be in the 'real' world. If our predictions are correct this lends support to our theory. If they are wrong there are three possible explanations:

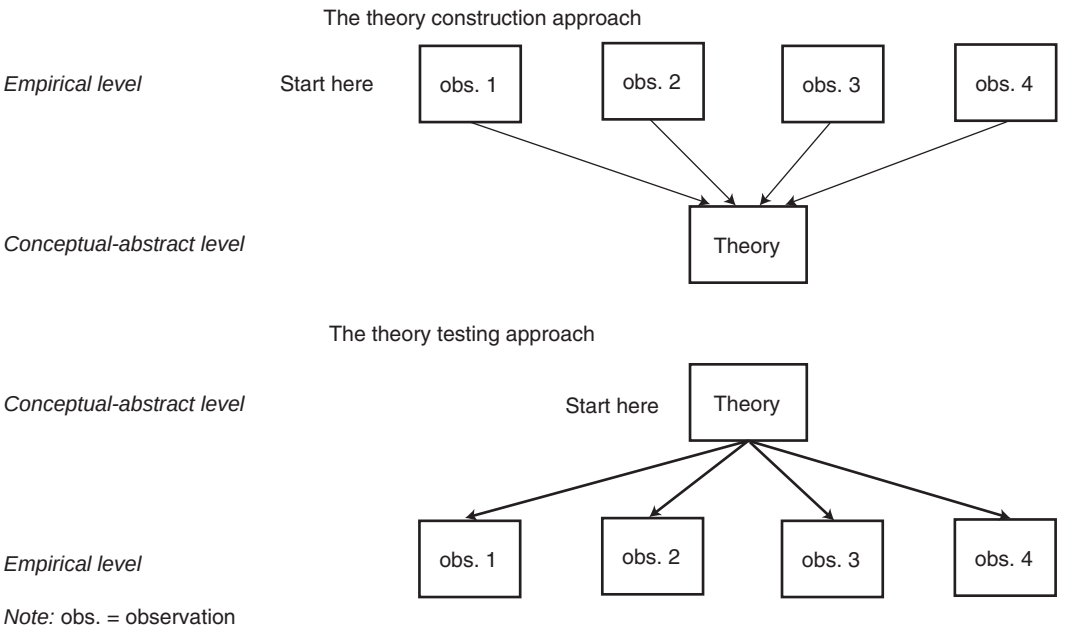


Figure 2.1 Theory construction and testing

1 The theory is wrong.
2 The prediction has been illogically derived from the theory.
3 The way we have gone about gathering information from the real world was flawed.

The reasoning process employed in theory testing research is called *deductive* reasoning—it involves deducing or predicting that certain things will follow (will be empirically observable) if the theory is true.

Theory building is, in my view, the first stage of developing good explanations, and theory testing follows as an attempt to test rigorously the tentative theory we have arrived at in the theory construction phase. In practice there is a constant interplay between constructing theories and testing them. Rarely are we purely constructing a theory or purely testing a theory.

THE PROCESS OF THEORY CONSTRUCTION

Having made particular observations, the basic question is: *is this observation a particular case of some more general factor?* If it is then we can gain a better understanding of the significance and meaning of the particular observation. For example, Durkheim (1970) observed that the suicide rate was higher among Protestants than among Catholics. But is religious affiliation a particular case of something more general? Of what more general phenomenon might it be an indicator? Similarly, women seem to be more religious than men. Is gender simply a particular case, or an indicator, of some more general concept? Gender might reflect position in the social structure: that women are socially less valued than men and are in this sense deprived. Thus the observation that

WEB POINTER 2.1 ***Inductive and deductive reasoning***

Useful description of the difference between inductive and deductive reasoning. http://trochim.human.cornell.edu/kb/dedind.htm

Visit www.social-research.org to use these links and to check for updates and additions.

women are more religious than men might simply indicate a more general pattern that social deprivation leads to increased religiousness.

Establishing the meaning of observations

There is a fundamental difficulty however. How do we know of what more general phenomenon a particular observation might be an indicator? How do we even get ideas of what it might be indicating? It is no simple task to know what particular observations might be indicating at a more general level. There is a real role for creative imagination, a craft which some people seem to be able to master more easily than others. Although there is no ideal way of identifying what the general phenomenon might be there are a number of approaches that can help.

Locating the common factor

If several different factors have a similar outcome we can ask: *what do each of them have in common?* This principle is used in IQ tests where a number of items are listed and you have to pick the odd one out. For example, given the list of pelican, eagle, duck and seagull we work out the odd item by seeing which three items share something in common which the fourth does not. The technique of locating the commonality between particular factors with the same outcome helps us work out the more general concept that the individual observations might represent. An example of this process is provided in Box 2.1.

Existing theories and concepts as a source of ideas

Making a set of observations will not always or even normally lead to the development of new concepts or a new theory. Any attempt to make sense of a set of observations will often use existing concepts and theories. If concepts and theories developed by others seem like reasonable summaries or accounts of what we have observed then we will make use of them. Where our observations are new or different or are not adequately summarised by existing concepts and theories we may need to adapt or modify the existing ideas.

A major problem in using existing theories and concepts is that we may not be open to equally plausible interpretations of the observations. This is especially a problem if we are committed to a perspective. The problem is not so much in using existing concepts but in the level of commitment to them and in failing to examine whether they are the most appropriate ones. When we are committed to a

BOX 2.1
Durkheim's suicide as an example of inductive reasoning

In his study of suicide Durkheim (1970) developed a social explanation for why people suicide based on inducing a common factor that underlay a set of different facts. He discovered that the suicide statistics indicated that the following groups were the most suicidal:

- *Protestants* compared with Catholics
- *older people* compared with younger people
- *urban dwellers* than rural dwellers
- *unmarried* than married
- *childless* than parents
- *men* than women
- *wealthy* than poor

Before you read any further see if you can think what the set of suicidal groups (italicised) might have in common. Of what more general factor might they simply be an indicator?

Durkheim believed that he had developed an explanation of suicide by locating such a common factor. He argued that all these types of people were likely to be relatively poorly integrated into society and that it was for this reason that each of these particular types had higher suicide rates. That is, all his particular observations were simply particular cases of the general principle that *the less well integrated people are, the more likely they are to commit suicide*. The likelihood that this induction is correct is increased because he had looked at a number of factors which have the same outcome (higher suicide rate) and he could at least plausibly argue that all the factors shared something in common.

model, whether it be Freudian, Marxist, Weberian, Feminist, Skinnerian or something else, we might ignore equally plausible alternative explanations and simply take every observation as further confirmation of what we already believe. This is very much against the spirit of the theory construction approach where the aim is to let the concepts and ideas emerge from observations. Of course it is never this simple. As we seek to make sense of observations, we bring our commitments, biases and values with us and our attempts to let the concepts emerge are restricted by the limited store of concepts with which we are familiar. The important thing is to realise this and to accept that our interpretations are likely to be clouded by our commitments. We must accept that our interpretations, although plausible or even convincing to ourselves, need to be rigorously tested.

Context

An important way of working out the meaning of an observation is to look at it in context. This is particularly so for the characteristics, behaviour and attitudes of people. For example, take a person who earns $50 000 a year. Do we take this as indicating that they have a reasonable income? Do we classify two people earning $50 000 as being equally well off? The meaning of a $50 000 income depends on many other factors, such as whether it is the only income in the family, the number of dependants, the age of the income earner, other expenses and so on. We have to see this apparently simple observation in the context of other factors to interpret what it indicates.

Ask respondents

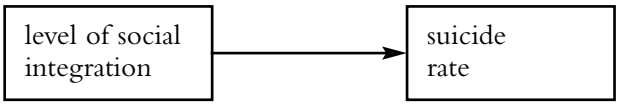
In many cases it is wise to ask people why they act or think as they do. This can provide clues about motivations behind actions and assist in interpreting what a particular action or attitude indicates for that person. This is not to say that we accept the stated reasons uncritically, but it can help provide insight into the meaning of behaviour.

Introspection

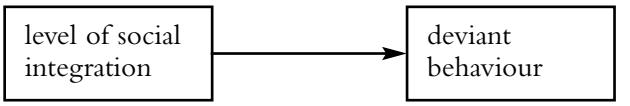
When we are familiar with a particular type of situation it is worth trying to put ourselves in the role of other people and try to understand their behaviour from their point of view. For example, we might observe that in families where the father or husband loses his job there is more violence than in families where the male is employed. To understand what that violence indicates and why it occurs it is helpful to try to imagine ourselves in the same situation. Our ability to do so varies according to our familiarity with a situation and also with the ability of particular researchers to put themselves in the position of someone else.

Levels of generality

Regardless of the means by which we move from the particular observations to working out what it might indicate at the more general level we can then go further to even more general levels. For example, using Durkheim's suicide example we developed the generalisation that:



Using the same approach as outlined we can ask: *is this simply a particular example of an even more general pattern?* It could be that it is a particular case of the more general pattern that:



Plausibility and the need for theory testing

The general approach I have been describing is called the inductive approach. It is the process by which we develop explanations by moving from the particular to the general: from the observations to theory. The basic principle is to try to see to what more inclusive set of phenomena our observation might belong.

Theories or explanations arrived at in this way are not the end of the explanation process. These explanations need to be tested rigorously. This is because such *ex post facto* explanations, although consistent with the observed facts, are not necessarily compelling and because a number of quite different explanations might be equally consistent with the facts—we need to have some way of working out which one is best (Merton, 1968: 93). The explanation may be plausible but not convincing.

In Box 2.2 I have provided an example that illustrates the notion of plausibility and the need for rigorous testing of *ex post facto* theories.

BOX 2.2
Gender differences and religion—plausible explanations

Studies in many countries have consistently found that on all sorts of measures women are more religious than men. A number of 'explanations' have been developed, all of which are consistent with the facts.

1 *Guilt theory:* Women are more religious because religion relieves guilt feelings. Since women have more guilt feelings they are therefore more religious.

2 *Freudian theory:* God is portrayed as a male—a father figure. According to Freud people identify with the opposite sex parent. Therefore women are attracted to a religion with a male god. This also fits with the additional observation that among Catholics men and women are about equally religious. That is because men identify with the Virgin Mary!

3 *Deprivation theory:* In our society women are more deprived than men and since religion fulfils a comforting role it will be the deprived who are most attracted to religion.

4 *Social learning theory:* The socialisation of girls teaches them to be nurturant, obedient, emotional, passive and submissive. Since religion encourages these attributes women find religion more attractive than do men.

5 *Role theory:* Women tend to have primary responsibility for childrearing. Because of the church's emphasis on the family, children's activities associated with the church and the church's role in moral training, mothers get drawn into the church via their children.

(Argyle and Beit-Hallahmi (1975) review the evidence and a range of theories including some of those listed above.)

On the basis of the simple fact (women tend to be more religious than men) all five explanations in Box 2.2 are plausible. The available facts do not allow us to choose between these explanations. We need to obtain further crucial facts to test any explanation. For example, to test the role theory explanation we might collect evidence to see if it is among men and women with young children that the male–female difference in religiousness is greatest. If this is so it would lend additional support for this particular theory above the others. But we would want to test each of the models in additional ways to help see which one had the most convincing empirical backing.

THE PROCESS OF THEORY TESTING

To test a theory we use the theory to guide our observations: we move from the general to the particular. The observations should provide a crucial test of the theory. Thus if we were testing the guilt explanation for the greater religiousness of women, we would at least expect that the greater a woman's feelings of guilt the more religious she would be. Further, we might expect that the preponderance of women over men would be more marked in religions emphasising forgiveness than in religions where forgiveness was not an important theme.

The basic idea then is to derive from the general theory more limited statements which follow logically from the theory. The key is to derive these statements in such a way that if the theory is true so will the derived statement. Having derived these more limited statements we collect data relevant to them and then look at the implications of these data for the initial theory. This process of theory testing is probably best explained with an example. I will outline six ideal-typical stages in this process (Box 2.3).

Six stages in theory testing

Stage 1 Specify the theory to be tested

As an example we will use the theory that industrialisation, because of the need for a mobile and skilled workforce, is a principal cause of the decline of the extended family and the rise of the nuclear family. The need to move because of jobs

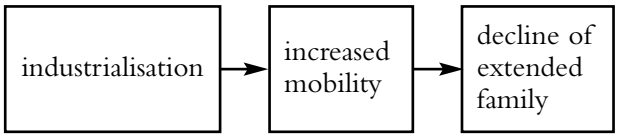
BOX 2.3 ***Stages in testing a theory***

Stage 1: Specify the theory to be tested
Stage 2: Derive a set of conceptual propositions
Stage 3: Restate conceptual propositions as testable propositions
Stage 4: Collect relevant data
Stage 5: Analyse data
Stage 6: Assess the theory

BOX 2.4
Urbanism and extended families—propositions to test a theory

a *Industrialised countries* will be characterised by *nuclear families* more than will *relatively non-industrialised countries*.
b Within any country, *rural areas* will be characterised by *extended family structures* more than will *industrialised urban areas*.
c People who *move for work or education reasons* will have *weaker ties with their extended family* than will people who *do not move*.
d In industrialised countries there will be little evidence of *nuclear families before industrialisation*.

and training breaks down family ties (Parsons, 1949). That is:



Stage 2 Derive a set of conceptual propositions

A proposition is a statement which specifies the nature of a relationship between two factors. The previous statements—the greater the guilt the more religious, or the more a church emphasises forgiveness the greater the proportion of women—are both examples of propositions. They are conceptual propositions in that the key terms (guilt, religious, forgiveness) are abstract items that are not directly observable.

Stinchcombe (1968:18–20) argues that the more propositions tested the stronger the test of a theory. Given the theory above, the propositions in Box 2.4 seem to follow logically.

You will notice that the propositions in Box 2.4 are still fairly abstract: the key terms which are italicised are still abstract concepts. Although these conceptual propositions provide us with a better idea of what observations to make, they still do not provide enough clues. What, for example, is an industrialised country? What is an extended family or a nuclear family? The next stage in the process then is to develop testable propositions.

Stage 3 Restatement of conceptual propositions as testable propositions

This stage of theory testing involves a whole set of tasks called *operationalisation*, the process of deciding how to translate abstract concepts (e.g. industrialisation) into something more concrete and directly observable (see Chapter 4). Having made these decisions we can simply restate each conceptual proposition in testable terms.

The testable proposition has the same *form* as the conceptual proposition. It is, however, more specific—the concepts in the conceptual proposition are replaced with *indicators* of the concepts.

Box 2.5 provides an illustration of a conceptual proposition that has been translated into a testable proposition.

By replacing the concepts with clear and measurable indicators we gain a very clear idea of precisely what data to collect.

Stage 4 Collect relevant data

Having decided what data are relevant to test our theory, we would then collect it (see Chapters 6–8).

Stage 5 Analyse data

Data are then analysed to see:

a how much support there is for the testable propositions;
b in turn how much support there is for the conceptual propositions;

BOX 2.5
Urbanism and extended family ties—developing a testable proposition

Conceptual proposition

Rural areas will be characterised by extended family structures more than will industrialised urban areas.

Operationalising the key concepts

To test this we need an *operational definition* of the key concepts: rural, urban, extended family. Suppose we define urban areas as areas with a population density of over 60 people per square kilometre and choose a particular city as an example. Rural areas might be defined as areas with a population density of less than eighteen per square kilometre and we may choose a particular area as an example. Our indicator of the extent to which people live in an extended family might be the proportion of a specified set of extended kin (e.g. siblings, parents, cousins, aunts, grandparents) with whom they have face-to-face contact at least weekly. These indicators of the concepts are operational definitions.

Testable proposition

The conceptual proposition can be restated in its testable form:

People in [selected rural area] will have weekly face-to-face contact with a greater proportion of their extended kin (i.e. grandparents, parents, aunts, uncles, cousins, siblings) than will people living in [selected city].

c in turn how much support there is for the initial theory.

Stage 6 Assessing the theory

Rarely is the initial theory completely supported by the research: results are typically ambiguous and conflicting. The theory is supported in some respects but not in others: some results will be unanticipated and confusing. This is good since it makes us think and modify or develop the initial theory and thus leads to progress. When we try to make sense of our unanticipated and confusing results we are really starting on the theory construction phase yet again. That is, we will modify the initial theory to take account of the observations we have made. As such the modified theory will need to be tested rigorously.

Theory construction and testing: an ongoing process

Wallace (1971) has described the process of theory development as an ongoing interaction between theory and observation and between theory construction and testing. This logic of the research process involving the shuttling back and forth between theory and observation is summarised in Figure 2.2.

Even though the terms I have used are not always applied and the steps not formalised (often not even recognised), the logic of what I have described is common in research. People do not always say 'I'm theory testing now' or 'I'll do a bit of inductive theorising now' or ' my conceptual proposition is . . .', but if you boil it down this is effectively what a lot of researchers do. Furthermore, the practice of research does not by any means always fit neatly into these systematic approaches. I have outlined them because they provide a helpful structure to help organise research and give it some direction. In practice we will often have to improvise, and compromise. The models help us organise.

THE NEED FOR THEORY AND OBSERVATION

The emphasis on basing theories on observations and evaluating them against further observations may seem to be common sense. However, it is not universally practised among social scientists. The practice of some social scientists involves the formulation of 'explanations' which are never systematically tested empirically. At best examples are used as proof. Examples, however, are a weak form of evidence, for regardless of the explanation we can find some examples to illustrate the argument. The key to empirical testing is to look for evidence which will

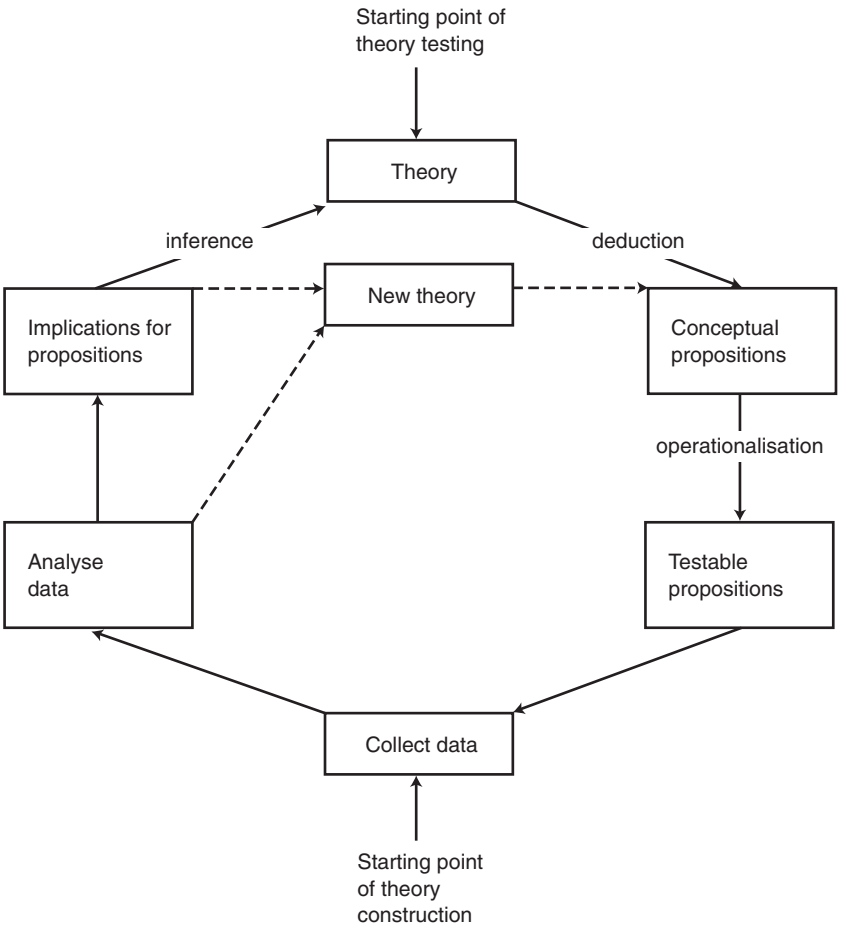


Figure 2.2 The logic of the research process

WEB POINTER 2.2 ***Links between theory and research***

An analogy of the logic of a theory testing approach to research based on a trial (the O.J. Simpson trial).	http://trochim.human.cornell.edu/OJtrial/ojhome.htm
Discussion of the link between theory and research as an ongoing process.	http://trochim.human.cornell.edu/kb/strucres.htm

Visit www.social-research.org to use these links and to check for updates and additions.

disprove the theory, not simply to find supporting illustrations.

Other people, not necessarily social scientists, have accepted theories on other non-empirical criteria. The authority criterion is common: people will accept a theory because of *who* proposed it, not because of the evidence for it. Kuhn (1964) has argued how important this is in many academic disciplines.

Intuition or 'gut feelings' are another common but non-empirical way of assessing the validity of explanations. Values and basic assumptions are also

crucial in affecting how convincing and appealing (and thus how popular) a theory is.

Another non-empirical way of assessing or developing a theory is to use the rules of logic rather than of evidence as the main criterion. This approach, which is called a rationalist approach, is illustrated by the classic example of a group of philosophers who, wishing to know how many teeth there were in a horse's mouth, consulted Aristotle (for rules of logic) rather than looking in the horse's mouth.

One response to these non-empirical ways of deriving and evaluating explanations has been the empiricist position which is equally at odds with the approach I have outlined. Advocates of the empiricist approach encourage us simply to collect all the facts and let the facts speak for themselves rather than contaminating the 'true facts' with theory. This approach is untenable: it is not possible to collect all the facts. For example, in 1997 the British Labour Party with Tony Blair as leader achieved a landslide victory in the general election in Britain. Why? To answer this question by collecting all the facts we would have to do precisely that—collect *all* the facts. This would not only be extremely inefficient, it is impossible. So we might decide to collect only the *relevant* facts. But how do we know which facts are relevant and which are irrelevant? The only way is if we have ideas about why Labour and Blair were so popular. These theories which we hold either implicitly or explicitly dictate which observations we make. Theories then are crucial in guiding the observations we make: they provide the foundation for focused observation.

The empiricist position also is unrealistic because the facts do not speak for themselves. Observations take on significance and meaning within a context. Durkheim's (1970) observation that suicide rates were higher among Protestants than Catholics took on much more significance and meaning within the context of his theory about social integration and suicide. Theories help provide a meaning and significance to observations and patterns that might otherwise seem unremarkable. Theories help us 'realise what one finds'.

> Febvre: 'When one does not know what one is looking for, one does not realise what one finds'. (in Burke, 1973)
>
> Pasteur: 'Where observation is concerned chance favours only the prepared mind'. (*Oxford Dictionary of Quotations*, 1979: 369)

Further, simply to collect a number of facts gives no idea about how they relate to one another. Theories provide a way of ordering observations and producing plausible accounts of how such observations might interrelate.

SOURCES OF THEORIES

The ideas we use when developing theories and making sense of our data come from a variety of sources.

Sociological perspectives

Within sociology there are a number of distinct perspectives through which the world is interpreted and researched. These include:

- Symbolic interactionist theory
- Social learning theory
- Structural functionalism
- Feminist theory
- Marxism
- Weberian theory
- Conflict theory
- Exchange theory

Different perspectives draw attention to different factors when trying to arrive at explanations. These different perspectives affect which facts we see as relevant and important and how we interpret them. Depending on our perspective(s) we ask different questions and are sensitised to different observations. Box 2.6 illustrates how different perspectives might affect the way we go about researching and explaining the way people vote.

For our current purposes it does not matter which of the perspectives in Box 2.6 best explains voting behaviour. The important thing is to be aware how these perspectives fundamentally affect the types of observations we make.

These perspectives provide clues about what to look for: they are a source of theories about particular aspects of society. All are relevant to a wide range of social phenomena and while no perspective is explicitly about voting, they have implications for voting. They are models of society or of personality rather than theories of a particular phenomenon. They provide ideas about possible explanations and give clues about how to make sense of what we see.

BOX 2.6
Perspectives for explaining voting preference

Why do some people vote for progressive political parties while others prefer more traditional parties? There are a number of sociological and psychological orientations that we might draw on to answer this question. For example:

- A *social learning* perspective will emphasise the way in which a person's socialisation and role modelling behaviour affects voting preferences.
- Some *psychological* perspectives would focus on personality characteristics such as authoritarianism and paranoia.
- A *Freudian* approach might draw attention to unresolved childhood conflicts leading to identification with certain sorts of leaders.
- A *Marxist* perspective might focus on a person's position in the class structure or use the notion of false consciousness or class consciousness.
- A *feminist* might interpret voting behaviour in terms of the roles and responsibilities of women (e.g. child care, poorer workforce position) or in terms of distinctive caring values that women are said to hold.
- A *structural functionalist* who sees society as a system of interdependent parts would explain voting as a result of what is happening in other parts of society. Thus conservative voting patterns may be seen as a response to rapid social change and an attempt to restore some sort of equilibrium.
- An *exchange* perspective emphasises that behaviour is basically motivated by the desire to maximise rewards and minimise costs. Thus it would focus on how people see a particular party as benefiting themselves.

As such they provide a set of glasses through which to view the world.

I do not intend to explore the sources of the various perspectives: that is a task for the history of ideas. However, a good many are illustrated in the classic works of sociology. Thus the works of Marx, Durkheim, Weber, Freud, Skinner, Mead and Parsons are important sources of these perspectives and provide a rich source of ideas when trying to develop theories.

Other sources

Previous research on the topic which you are exploring can provide invaluable leads, articulate theories to test and alert you to possible interpretations of what you observe. Our own imagination and experience can be a useful source of theories. Reflecting on why we behave as we do can provide ideas. Wide reading in sociology, related disciplines, novels, plays and so on can stimulate the imagination. Earlier, the contribution of inductive reasoning and a number of ways of working out what a particular observation might mean were discussed. These same processes can be valuable sources of theories.

THE ROLE OF DESCRIPTIVE RESEARCH

The emphasis on explanation so far does not mean that descriptive research is unimportant. Descriptive research deals with questions of *what* things are like, not *why* they are that way. It includes a wide range of areas such as market research, public opinion polling, media research (ratings surveys), voter intention studies and the like. Governments sponsor a lot of descriptive research: the census and unemployment rate surveys are examples. Sociological studies which describe the social structure of a community, social changes over the past 50 years, or the workings of an organisation are further examples of descriptive research. Descriptive research can be very concrete or more abstract: it depends on what we wish to describe. At the fairly concrete level we might describe the income levels of different types of people or their ethnic background, or we can address more abstract questions such as 'is the modern family isolated?', 'are working-class people characterised by class consciousness?' and 'is society becoming secularised?'

WEB POINTER 2.3 ***Sources for social theories and perspectives***

The following websites all provide different ways of learning about social theories and perspectives. Some sites provide original work of a wide range of social theorists, others provide useful overviews of their ideas while others provide summaries of the core ideas of various perspectives (e.g. Marxist, conflict, functionalist etc).

Theories and theorists.	www.mcmaster.ca/socscidocs/w3virtsoclib/theories.htm www.geocities.com/CollegePark/Quad/5889/socialth.htm http://raven.jmu.edu/~ridenelr/dss/index.html www.geocities.com/Athens/Olympus/2147/basesociologists.html www.pscw.uva.nl/sociosite/TOPICS/Sociologists.html
Useful summaries of classic articles by important theorists. The summaries include commentaries and place the ideas in a wider context.	www.spc.uchicago.edu/ssr1/PRELIMS/theory.html
Links to numerous other social theory sites.	www.trinity.edu/~mkearl/theory.html
Sociological perspectives and theorists with extracts from their work and summaries from teaching courses.	www.geocities.com/Athens/Olympus/2147/basetheory.html#structure

Visit www.social-research.org to use these links and to check for updates and additions.

Good description is important. It is the basis for sound theory. Unless we have described something accurately and thoroughly, attempts to explain it will be misplaced. As a descriptive statement we might say that families have been getting smaller since the industrial revolution and then try to explain this. But if they have not been getting smaller our explanations will be both wrong and pointless. Furthermore good description can provide a stimulus for explanation and research. Descriptions can highlight puzzles which need to be resolved and as such provide the stimulus for theory construction.

In addition, descriptive research plays a key role in highlighting the existence and extent of social problems, can stimulate social action and provide the basis of well-targeted social policy interventions. Survey research has demonstrated the extent of poverty in many countries (this was the focus of early survey research—see Marsh, 1982:9–36) and the unemployment surveys can affect public attitudes and government policies. Health surveys are important in the allocation of health resources and the development of effective health promotion programs. Competent description makes it more difficult to deny the existence of problems. Of course there is poor descriptive research just as there is poor explanatory research but this is not inherent in description itself. Some descriptive research seems to be based on empiricist assumptions and ends up as an exercise in mindless fact gathering. But this lack of direction and focus need not characterise good description. Some descriptions seem trivial—no doubt many are—but equally many are important or potentially so.

THE CENTRALITY OF THEORY

The theme of this chapter has been that as soon as we try to answer 'why' questions about society we necessarily start to theorise. I have argued that theories should be empirically based (theory construction) and evaluated against empirical reality (theory testing). I have emphasised that:

1 Theory development is an important goal of social research.
2 Theories which we are testing either implicitly or explicitly guide us to which observations might be relevant to a problem. Theory testing therefore is central to efficient data collection.
3 Theories can help us make sense of a set of observations by helping us see what broader concepts our observations might reflect and by providing a plausible account of how various observations relate to one another.
4 Theories provide guides for analysis: propositions emerge from theories and propositions form a key focus around which data are analysed.
5 Theories provide a context in which to place particular observations which helps us to see the possible significance and meaning of observations. As such they sensitise us to observations we might otherwise ignore.
6 Theories can help us pose challenging questions and to be aware of certain problems. Hopefully they help avoid asking trivial questions and reducing research to social arithmetic.

While theory is central to the research enterprise there is nothing sacred about any particular theory. Theories are always tentative attempts to find a plausible explanation for a set of observations. They ought to be rigorously tested and be subject to modification and revision. In fact the principle of trying to disprove a theory should guide the design of research. Our aim should not simply be to design research to enable us to obtain results favourable to our theory.

KEY CONCEPTS

Concept	*Ex post facto* theories	Operational definition	Theory construction
Conceptual proposition	Grounded theory	Operationalisation	Theory testing
Deductive reasoning	Indicator	Rationalism	
Empiricism	Inductive reasoning	Testable proposition	

FURTHER READING

Merton's *Social Theory and Social Structure* (1968) provides good and well-known introductory discussions of the relation between theory and empirical research in Chapters 2, 3 and 4. Mills provides stinging criticisms of non-empirical theory and non-theoretical enquiry in Chapters 2 and 3 of *The Sociological Imagination* (1959). The whole book is worth reading because of its insistence that sociology is a craft.

Chavetz in *A Primer on the Construction and Testing of Theories in Sociology* (1978) provides a useful and readable book on the nature of theory construction and testing as does Dubin in *Theory Building* (1969).

Two readable papers on theory testing in relation to nursing research are provided by McQuiston and Campbell in 'Theoretical Substruction: A Guide for Theory Testing Research' (1997) and by Acton et al. in 'Theory-Testing Research: Building the Science' (1991). Wallace expands on the circular model of research discussed in this chapter in *The Logic of Science in Sociology* (1971). But the best analysis of the logic of social research is Rose's *Deciphering Sociological Research* (1982). Glaser and Strauss provide a classic discussion of the nature of theory and the process of theory construction in *The Discovery of Grounded Theory* (1967).

Blumer has provided a excellent demonstration of the importance of theoretical concepts in any research undertaking but especially with inductively based research in his paper entitled 'Science without Concepts' (1934). Denzin also provides an excellent account of one type of theory construction approach in *The Research Act* (1978, pp. 191–6) and de Vaus (2001) illustrates the process of inductive theorising in case study research.

Strauss provides an example of higher level inductive theorising in his book on *Negotiations* (1978) and Glaser provides more insight into the way higher level inductive theorising is best achieved in his book *Theoretical*

Sensibility (1978). Homans provides a brief and readable discussion of the importance of deduced propositions for the development of sociological explanations in his famous, if controversial, book *The Nature of Social Science* (1967).

EXERCISES

1 For each of the following studies say whether it is a descriptive or explanatory study.
   a A study to assess the level of health in society.
   b A study to assess voting intentions.
   c A study to assess whether divorce is linked to the affluence of a family.
   d A study to see whether the age at which people are getting married is increasing.
   e A study to discover people's attitude to the internet.
   f A study to test whether anti-smoking campaigns reduce smoking levels among young people or whether they increase smoking by making smoking appear more attractive by presenting it as a marginalised and forbidden behaviour.

2 In your own words explain the following terms: theory, inductive, deductive, *ex post facto*, operationalisation, empiricist, rationalist.

3 Below are two theories you might hear in everyday conversation. For each of these theories:
   a Translate the theory into a 'box and arrow diagram' as in page 14.
   b Develop at least four conceptual propositions for the theory.

   Theory 1
   Our affluent society leads to the decline of the self-help ethic which in turn leads young people to expect things to be done for them which creates laziness and this leads to youth unemployment.

   Theory 2
   Anti-smoking campaigns and rules make smoking appear risky, deviant and marginal. Because young people need to develop a sense of identity that distinguishes them from their parents (and it is their parents' generation that make these rules and run the campaigns), these portrayals of smoking make smoking appear attractive to young people. Therefore anti-smoking campaigns and restrictions will lead to an increase rather than a decrease in smoking among young people.

4 What is the difference between a sociological perspective and a theory?

5 It was argued that the role of theory is central to research. Explain what theory achieves in social research.