5

Concepts, Theories, Hypotheses and Models

Chapter Summary

- The nature of the research questions, and the choice of research strategy or strategies, will determine how concepts are used, whether hypotheses are used, and the role of theory and models.
- Four traditions represent the ways concepts are used in social research.
  - *Ontological* tradition – concepts identify the basic features of some social phenomenon and the relationships between them.
  - *Operational* tradition – concepts are translated into variables by devising ways to measure them.
  - *Sensitizing* tradition – concepts provide initial ideas of what to look for, and these ideas will be refined as the research proceeds.
  - *Hermeneutic* tradition – concepts that a researcher uses to describe and understand any social phenomenon are derived from everyday concepts and meanings.
- The adaptive alternative seeks concepts that integrate agency and structure, as well as micro and macro-analysis, and social and sociological conceptions, with general theory.
- The four research strategies tend to use concepts in different ways.
- Theory can be regarded as being of two main types – theoreticians' and researchers' – and as existing at different levels of abstraction, ranging from classificatory schemes, through conceptual frameworks to theoretical systems.
- The place of theory in social research has been described in a variety of ways.
  - As occupying the space between empirical generalizations and grand theory, theories of the middle-range (Merton).
  - As producing an understanding of personal troubles and public issues by focusing on the intersection of biography and history (Mills).
  - As occupying various levels of abstraction between data and general theoretical ideas (Turner).
  - As being both inputs and outputs in ongoing cycles of induction and deduction (Wallace).

  - As being generated from data (Glaser and Strauss).
  - As being the outcome of a dialogue between research data and unfolding conceptualizations and theoretical reflections (Layder).
- Hypotheses play a limited role in social research, only being relevant to the answering of 'why' research questions with the Deductive research strategy.
- Various types of models are used in social research. They are:
  - abstract descriptions;
  - synonym for theory;
  - conceptual models;
  - theoretical models;
  - analogue for mechanisms;
  - diagrammatic representations; and
  - mathematical representations.

Introduction

The social science literature is replete with ideas about the role of concepts, theories, hypotheses and models in social research. Some of these ideas have come to be accepted uncritically. For example, many textbooks on social research methods regard the core of social research as being the definition and measurement of concepts, with theories stating relationships between concepts and models consisting of networks of such relationships. Hypotheses are regarded as potential relationships between concepts that can be tested by measuring the key concepts in them and analysing the data so produced. This view is attractive because of its simplicity. However, while it is very common, it is only relevant to two of the research strategies, the Inductive and Deductive, and then it is used differently in each one. Other views also need to be considered.

This chapter examines:

- views on how concepts are used in social research;
- ideas on the nature and use of theory;
- classical and contemporary views on the relationship between theory and research;
- the role of hypotheses and their connection with theory;
- types of models and their uses; and
- the role of concepts, theories, hypotheses and models in the four research strategies (see figure 5.1).

The Role of Concepts

A concept is an idea that is expressed in words or as a symbol. Technical concepts in any discipline form the language by means of which it deals with its subject-matter. They range in generality from the very specific to the highly abstract, and from the simple to the complex. Concepts are regarded as the building blocks of social theories. Theories, in turn, specify the relationships between concepts

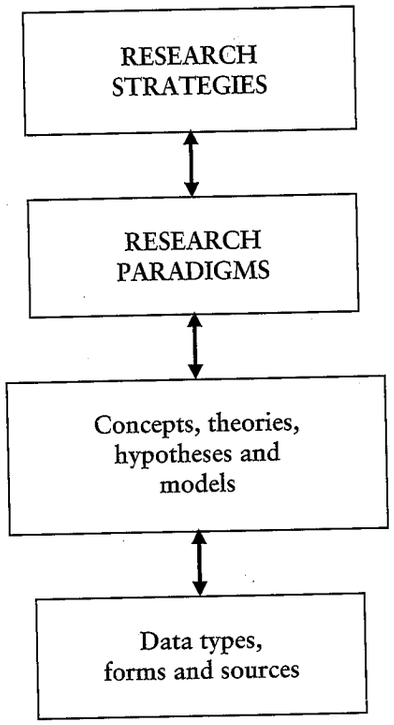

Figure 5.1 Concepts, theories, hypotheses and models

and why these relationships exist. Good theories are supposed to represent what happens in the social world.

A commonly held view of the role of concepts in social research, and their place in social theory, is embodied in the Positivist research paradigm. Blumer (1969) describes this view as follows.

> Theory is of value in empirical science only to the extent to which it connects fruitfully with the empirical world. Concepts are the means, and the only means of establishing such connection, for it is the concept that points to the empirical instances about which a theoretical proposal is made. If the concept is clear as to what it refers, then sure identification of the empirical instances may be made. With their identification, they can be studied carefully, used to test theoretical proposals and exploited for suggestions as to new proposals. Thus, with clear concepts theoretical statements can be brought into close and self-correcting relations with the empirical world. (Blumer 1969: 143)

In addition to this role of establishing some kind of link with the social world, Blumer saw concepts as being important in the theoretical framework that sets a context for the research, as being involved in the statement of the research problem, as determining the data that will be collected and how they will be

categorized, and as being essential in describing the findings (1969: 26). However, he proceeded to scrutinize this view, in particular, to question whether concepts used in this paradigm actually match the empirical world to which they are supposed to refer (1969: 28). His solution was to use sensitizing rather than definitive concepts, a distinction to be discussed shortly.

It is differences in views about the sources of concepts and their definitions that distinguish the research strategies. For example, in the Inductive and Deductive research strategies, it is the researcher's responsibility to select the relevant concepts and to define them before the research commences. However, in the Abductive research strategy, the concepts and their definitions may be derived initially from those used by social actors in the context of the topic under investigation. Technical concepts are derived from these lay concepts by a process of abstraction during the course of the research. Because of these different usages, *we cannot set out with just a single view of the role of concepts in social research.*

In the Inductive and Deductive research strategies, concepts and their definitions have various origins. For example, they may come from:

- a theoretical perspective or research paradigm that is dominant within a discipline or social scientific community (e.g. conflict theory or Interpretivism);
- a specific research programme (e.g. social mobility);
- commonly used theoretical concepts that are given a new definition (e.g. social class); or
- everyday concepts that are given precise meanings.

All of these sources involve the researcher in deciding what concepts and definitions are the most appropriate.

To explore these differences, five traditions in the use of concepts in the social sciences are discussed: the *ontological*, the *operationalizing*, the *sensitizing*, the *hermeneutic* and the *adaptive*. The *ontological* tradition is concerned with establishing the main features of social reality, the *operationalizing* tradition with specifying and measuring concepts to produce variables for a particular research project, the *sensitizing* tradition with refining an initial flexible concept in the course of the research, the *hermeneutic* tradition with deriving technical concepts from lay language, and the *adaptive* alternative with using both technical and lay concepts to link structure and agency.

The Ontological Tradition

The *ontological* tradition is concerned with establishing a set of concepts that identifies the basic features of the social world, and that are essential for understanding societies, major social institutions or, perhaps, small-scale social situations. Elements of the ontological tradition can be found in the work of classical and modern social theorists. Classical theorists, such as Marx, Weber and Durkheim, each developed a battery of key concepts that provided a view of reality and were used in their theorizing. However, it was a modern theorist, Talcott Parsons, who turned the ontological analysis of concepts into a major

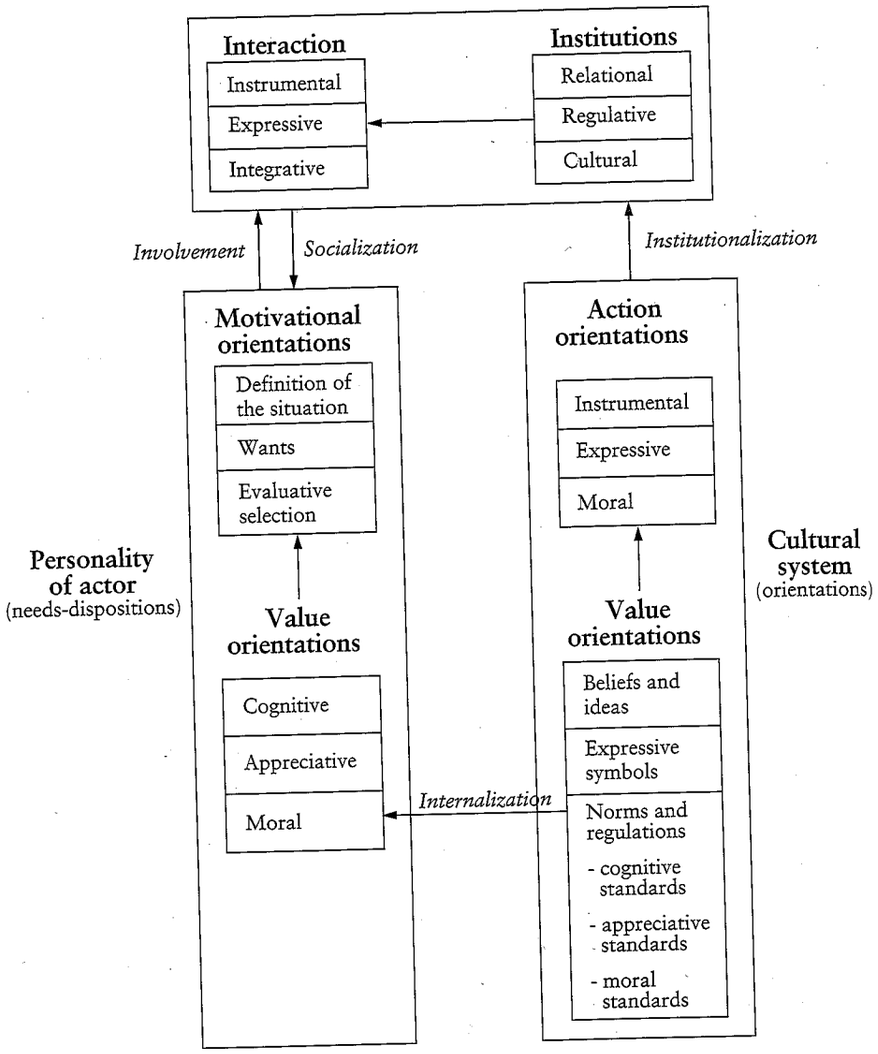

Figure 5.2 Parsons's theory of the system of action (*Source*: Waters 1994: 145)

preoccupation. A modification of part of Parsons's conceptual scheme will serve as an illustration of this tradition (see figure 5.2).

More recent attempts at theoretical synthesis, such as those by Habermas and Giddens, also include a strong ontological emphasis. Giddens, for example, has reorganized and redefined some of the basic concepts used by Parsons and others (e.g. society, social system, institution, structure), and has arranged them around the concept of 'structuration'. The foundation concepts in his scheme are 'agency' and 'structure', and the interplay of these leads to the process of structuration. While it is not possible to elaborate Structuration Theory here (see Giddens 1979, 1984 as well as: Cohen 1989; Bryant and Jary 1991; Craib 1992; Layder 1994;

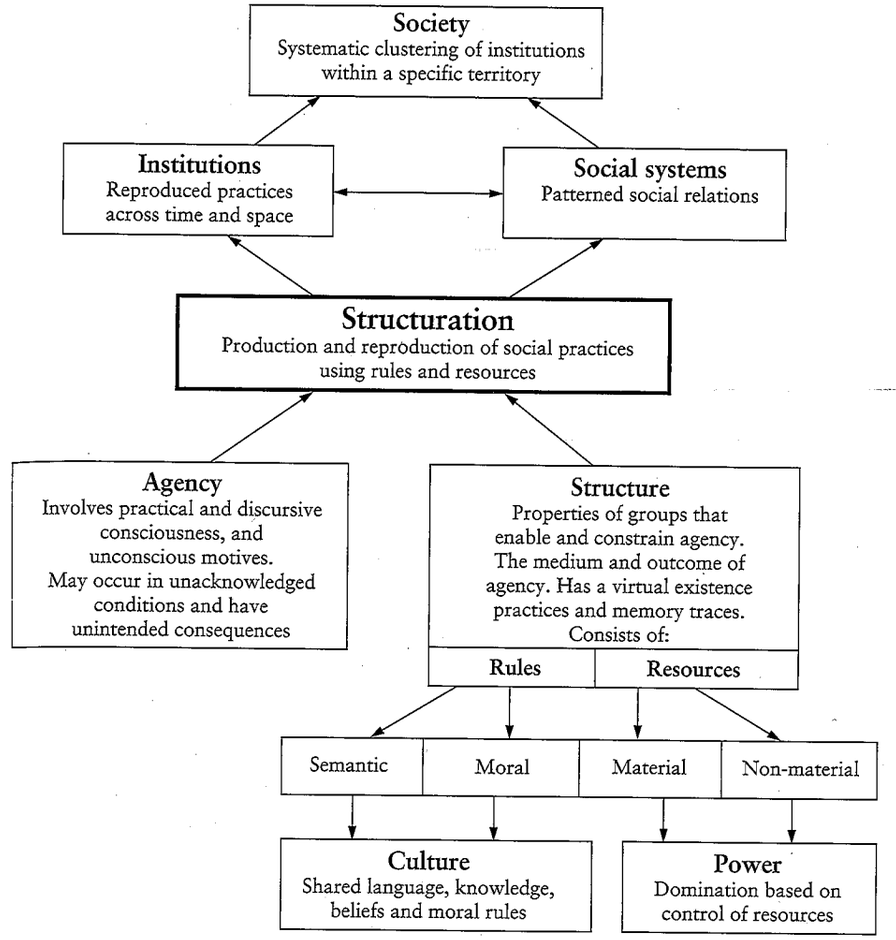

Figure 5.3 Key concepts in structuration theory

Scott 1995; Blaikie 2007), figure 5.3 is my attempt at setting out the relationships between Giddens's basic concepts.

The Operationalizing Tradition

The operationalizing tradition is concerned with turning concepts into variables, with identifying the key concepts to be used in a particular study, and then defining them and developing ways of measuring them.

From Durkheim on, it has been argued that as concepts are the basic building blocks of theory, they must be defined precisely and consistently. The imprecision of ordinary language must be superseded by a technical use of concepts. This has led to the view that science has two languages (see e.g. Blalock 1968; Sedlack

and Stanley 1992; Babbie 2004; Neuman 2006): one is the language of *conceptualization* and the other is the language of *operationalization* used in quantitative measurement and testing of theories.

The language of *conceptualization* is the language that social scientists use to communicate their theoretical ideas and research findings to each other; it is the language of both abstract theoretical notions and a means of identifying observable phenomena. In the context of a research project, this language is used to identify key concepts and to state relationships between these concepts; to state research questions and hypotheses. Thus, some authors refer to this language as 'theory'. For example: 'Theories are built from concepts [and] . . . concepts are constructed from definitions' (Turner 1991: 5).

Researchers are required to define these concepts precisely in terms of how they will be used in a particular research project. The aim is to maintain a consistent theoretical language, although this is unlikely to be achieved. Turner has certainly adopted an optimistic view on this.

> Hence the verbal symbols used to develop a concept must be defined as precisely as possible in order that they point to the same phenomenon for all investigators. Although perfect consensus may never be obtained with conventional language, a body of theory rests on the premise that scholars will do their best to define concepts ambiguously. (Turner 1991: 5)

These meanings are usually referred to as *formal definitions*.

The second language, *operationalization*, is used to transform theoretical language into empirical concepts. This is done by specifying the procedures by which the 'theoretical' concept will be measured, by indicating what will count as an example of, or what will have to change to produce different values for, the theoretical concept, i.e. the indicators that will be used to measure the concept to produce data related to it. These are commonly called *operational definitions*.

The concept of 'social class' is an example of such an abstract concept. Social class might be defined as 'a category of individuals who occupy a similar position in a structure resulting from the distribution of economic resources'. While there are other meanings, this is what social class could mean in a particular research project. Thus defined, the concept might then be measured in terms of the income a person receives from wages or salary. This operationalization relates to only one part of the total economic resources to which an individual may have access, such as interest on savings, dividends from shares, rental income from property, capital gains from property or other assets, a pension or superannuation. To faithfully measure the concept as defined, these and maybe other data would be required. However, the researcher might decide that some sources of income (e.g. capital gains) are too difficult to measure reliably, or that individuals in the study may have little or no idea how much of such income they receive. Hence, operationalization may be kept to something that is readily measured (although experienced researchers will know that obtaining accurate information about a person's annual wages or salary can be far from straightforward).

When a concept can have a number of values, the measurement of it produces a *variable*. A variable is 'a *concept* which can have *various values*, and which is

defined in such a way that *one can tell by means of observations which value it has in a particular occurrence*' (Stinchcombe 1968: 28–9). In research that stresses the importance of operationalism, variables are the focus of research activity.

A great deal of attention has been given to the problems of operationalizing some of the major concepts in social science. Debates about defining and operationalizing concepts have sometimes been regarded as a theoretical activity. For example, some time ago, discussions on the appropriate meaning of the concept of 'role' kept many writers busy. The purpose seems to have been to arrive at the 'right' definition and to somehow persuade others to use it (see Biddle 1979).

A major difficulty encountered in defining and operationalizing concepts is that they differ in their level of abstractness. Some concepts relate to concrete phenomena in specific times and places (e.g. the suicide rate). Other concepts deal with phenomena that span time and place, that are very general (e.g. deviant behaviour). These latter concepts may be difficult to operationalize unless they are translated into more specific concepts.

This tradition of two languages also identifies a particular relationship between theory and research. Theoretical activity is essentially about identifying the most useful concepts and finding the right formal meanings for them, while research is about selecting the best method of operationalizing a concept and then proceeding to collect appropriate data and analyse them. As C. Wright Mills pointed out many years ago, this is a very restricted view of both theory and research.

> 'Theory' becomes the variables useful in interpreting statistical findings; 'empirical data' . . . are restricted to such statistically determined facts and relations as are numerous, repeatable, measurable. . . . There are no philosophical grounds, and certainly no grounds in the work of social science . . . so to restrict these terms. (Mills 1959: 66)

The relationship between theory and research will be taken up later in this chapter.

Blumer was a major critic of the operational tradition. He depicted the tradition thus.

> 'Operational procedure' rests on the idea that a theoretical assertion or a concept can be given both empirical reference and validation by developing a specific, regularized procedure for approaching the empirical world. The given procedure or operation may be the use of a test, a scale, a measuring instrument, or standardized mode of inquiry. The procedure 'operationalizes' the theoretical proposition or concept. If the given operation meets tests of reliability the operation is taken as a sound instrument for disengaging specific empirical data. In turn, these data are thought to be valid empirical referents of the concept or proposition that is operationalized. (Blumer 1969: 30–1)

He objected to the idea of measuring concepts by selecting only a limited aspect of the relevant phenomenon and assuming that it reflected all aspects. Take the measurement of intelligence for example. In everyday life, intelligence manifests itself in many ways and is

> present in such varied things as the skilful military planning of an army general, the ingenious exploitation of a market situation by a business entrepreneur, effective methods of survival by a disadvantaged slum dweller, the clever meeting of the problems of his world by a peasant or a primitive [*sic*] tribesman, the cunning of low-grade delinquent-girl morons in a detention home, and the construction of telling verse by a poet. It should be immediately clear how ridiculous and unwarranted it is to believe that the operationalizing of intelligence through a given intelligence test yields a satisfactory picture of intelligence. To form an empirically satisfactory picture of intelligence, a picture that may be taken as having empirical validation, it is necessary to catch and study intelligence as it is in play in actual empirical life instead of relying on a specialized and usually arbitrary selection of one area of its presumed manifestation. (Blumer 1969: 31)

As a symbolic interactionist, Blumer argued that an adequate understanding of social life requires recognition of the fact that individuals and groups find their way about by defining and interpreting objects, events and situations that they encounter. The operational tradition either ignores this or takes it for granted as not needing to be considered (Blumer 1969: 133). However, Blumer was not completely against the operational tradition as long as it was only used 'for those areas of social life and formation that are not mediated by an interpretive process' (Blumer 1969: 139). He was also prepared to accept that in areas where interpretation is involved, variable analysis might unearth patterns that cannot be detected by the direct study of people as is required in the interpretive approach to social enquiry. These patterns can then be investigated for the interpretations that lie behind them.

The Sensitizing Tradition

Blumer's major solution to the deficiencies of the operational tradition was to suggest the use of sensitizing concepts.[1] He argued that in getting close to the social world we discover what social phenomena have in common. However, these similarities are usually expressed in a distinctive manner, with individual and group variations. Therefore, concepts need to be sensitizing rather than definitive in order for a researcher to be able to explore the nature of what is common.

Sensitizing concepts provide clues and suggestions about what to look for. The task is to reshape the concept to identify the nature of common aspects within the diversity of other features. Until this is done, it is premature to impose predefined (definitive) concepts on the phenomenon. A researcher sets out with one or a few rather general and vaguely defined concepts that are needed to provide an orientation to the research problem. Initially, their meaning will be established by exposition rather than by definition. However, as the research proceeds, the meaning of the concepts will be refined to make them more relevant for their purpose.

In their exposition of grounded theory, Glaser and Strauss (1967) referred to theoretical sensitivity as the continual development of theory from data. Grounded theory combines 'concepts and hypotheses that have emerged from the data with some existing ones that are clearly useful. . . . Potential theoretical sensitivity is lost when the sociologist commits himself [*sic*] exclusively to one specific preconceived theory' (1967: 48). The notion of *sensitivity* here refers to openness on the part of a researcher to different ideas, to a process of interrelating theoretical insights and data.

Drawing on the ideas of Glaser and Strauss (1967) about grounded theory, Denzin has taken the middle ground with regard to sensitizing concepts. He has argued that within his version of symbolic interactionism, the use of sensitizing concepts precedes operationalization. In fact, he defined sensitizing concepts negatively: 'By *sensitizing concepts* I refer to concepts that are not transformed immediately into *operational definitions* through an attitude scale or check list. . . . The sensitizing approach merely delays the point at which operationalization occurs' (Denzin 1970: 14).

Two points need to be noted here. First, Denzin included the meanings that social actors give to the concept being investigated in order to arrive at his meaning for it. Second, the subsequent *operationalizing* of the concept may be looser and much more diverse that would normally be the case in the operationalizing tradition.

The defining characteristic of the *sensitizing* tradition is that a researcher sets out with a loosely defined concept and then refines its meaning during the course of the research. While some help might be obtained from the people involved in the study, the concept remains the researcher's. Even if another concept is substituted, the concept and its ultimate meaning are based on the researcher's decisions. The *hermeneutic* tradition presents a radical alternative to this view.

The Hermeneutic Tradition

The *hermeneutic* tradition differs from the *sensitizing* tradition in that concepts the researcher uses to describe and understand *any* social phenomenon (i.e. technical concepts) have their origin in the everyday language of the social actors under investigation, not in the language of the discipline.

Advocates of this tradition argue that, initially, accounts of social life need to be derived from the accounts that social actors give of their activities; the language used by the social scientist must be derived from everyday language. This requires a hermeneutic process in which the researcher tries to grasp the meaning of everyday language by becoming immersed in the relevant sector of the social world (Giddens 1976). As the process advances, the researcher has to mediate between the particular everyday language and some version of the technical language of social science in order to produce concepts that are relevant to the research topic. The process of mediation is akin to the hermeneutic reading of a text; it is a matter of interpretation rather than translation (Gadamer 1989).

While a researcher may need sensitizing concepts at the outset, these must give way to the everyday concepts that social actors use to discuss and relate to this phenomenon. For example, if the topic for investigation is the 'care of the aged', then a researcher has to discover what language old people, their families and

professionals use to discuss the problem of what should be done about old people who have lost the capacity to care for themselves. A range of concepts might be used by different actors in different contexts, and none of these may correspond to the ones a researcher has derived from the literature. The researcher's task is to make sense of this diversity of language by producing a typology, a set of categories (types) that capture the different concepts and their meanings. The labels for such types may be invented or borrowed from the literature, but their meaning will be generalized from those used by the social actors (see Stacy 1983; Blaikie and Stacy 1982, 1984; Blaikie 2007: 97–9).

Hence, the *hermeneutic* tradition also differs from the *operational* tradition in terms of the source of concepts. The *operational* tradition works 'top down' in the sense that it imposes a researcher's concepts on everyday life, the assumption being that the researcher is in a position to judge what concepts will be relevant because of the theoretical model or perspective that has been adopted. In the *hermeneutic* tradition, researchers work 'bottom up' by adopting the position of learner rather than expert. Social actors have to teach the researcher how they understand their world, i.e. what everyday concepts and interpretations (lay theories) they use to make sense of it. By a complex process, researchers can use these lay concepts and methods of understanding as the ingredients for their accounts. From lay concepts technical concepts can be generated. This may require the invention of new concepts, the adaptation of existing technical concepts, or the borrowing of the latter. In the process, a more general and abstract account than the individual accounts of social actors is produced.

To use concepts as advocated by this tradition is to be reflexive: to allow concepts to evolve through a process of re-examination and reflection. The meaning of a concept does not remain static; it changes as the concept evolves from the data and is applied to them. Whether concepts developed in this way can be applied in other contexts is a matter for investigation. Of course, a researcher has to stop somewhere and freeze the meaning of a concept for a while. The aim of all this is to generate concepts that fit the problem at hand and work to provide useful description and understanding.

The Adaptive Alternative

Later in the chapter we will encounter an approach to the relationship between theory and research proposed by Layder (1998). As part of this proposal, he discussed the types of concepts that he considers enter into social research.

His primary concern was to establish a link between theoretical concepts and ideas, and empirical materials (data and information), a link that did not give preference or priority to one or the other. The *ontological* tradition is clearly on the theoretical side while the *operational* tradition leans towards the empirical side. In their own ways, the *sensitizing* and *hermeneutic* traditions try to establish bridges between the theoretical and the empirical. However, Layder wanted to go much further by establishing concepts that bridge aspects of individual social agency and reproduce social relations and practices. In other words, he wanted concepts that integrate agency and structure as well as the micro and macro levels

of social analysis. At the same time, he wanted to blend social actors' conceptions with sociological conceptions.

He saw these concepts as merging 'the subjectively experienced world of research subjects with the analytic and conceptual predilections and directives of the researcher.' These concepts 'are not simply grounded in data of lived experiences or local narratives, but are also anchored to a chain of reasoning and an analytic advantage point which gives their conceptual representation of the behaviour in focus a rather different basis' (Layder 1998: 82).

To achieve this, Layder identified four types of concepts: *behavioural*, *systemic* or structural, *bridging* or mediating, and *general* or theoretician's. *Behavioural* concepts are concerned with individual social agency and with describing the everyday world from an 'insider' point of view. They include types of social actors in particular types of social activities or social settings, types of interpersonal relationships in such settings, and the meanings and interpretations people give to such activities, settings and relationships. 'The point about behavioural concepts is that they directly describe some aspect of a participant's behaviour, predisposition or attitude and include some reference to his or her identity or the quality and meaning of the relationships in which he or she is involved' (Layder 1998: 85).

Layder is willing to allow behavioural concepts to be either member-defined or observer-defined. However, if the latter, they need to be 'subjectively adequate' (Schütz 1963b; Bruyn 1966), 'retain the integrity of the phenomenon' (Douglas 1971) or be relevant to the people involved (Glaser and Strauss 1967). This means that behavioural concepts 'must be recognizable, make sense and be understandable to those who are the subjects of the study (even if not routinely employed by them)' (Layder 1998: 86).

Systemic or structural concepts refer to the reproduced social relations that confront social actors as an external reality. They represent

> the historically emergent standing conditions of an ongoing society. To say that they are standing conditions does not mean that they are static and unchanging or that they are somehow beyond the reach and influence of human agents. Such things as institutions, language, culture and various forms of knowledge are all susceptible to the transformative powers of individuals and social groups, but they nonetheless confront particular individuals and groups as the products of previous generations. (Layder 1998: 88)

At this point, Layder draws on Giddens's notion of 'duality of structure', that social structures are both constituted by human agents and provide the conditions for social life. They provide the rules and resources that people draw on in their routine social activities, and such activities contribute to the reproduction of these structures through time and space. They are the settings and conditions that constitute the social environment in which social life takes place. Therefore, while the systemic or structural aspects of society are intimately linked with the behavioural aspects, they constitute a second area of attention for the theorist and social researcher.

Layder goes on to argue that a third category of concepts is required as *bridging*

or mediating concepts between the behavioural and systemic. He referred to these concepts as typifications. This notion is derived from Schütz (1963a), although Schütz regarded typifications as being both social (social actors' everyday concepts) and sociological (theorists' and researchers' technical concepts). Layder has confined his use to sociological concepts.[2] He wanted these concepts to be an amalgam, and to have an equal measure of agency and structure, or behavioural and systemic aspects. Because bridging concepts are not defined entirely in terms of everyday social activities, they may not be recognizable to social actors without their sociological meaning being explained.

Layder has proposed that bridging concepts indicate and focus on three broad kinds of phenomena. The first is the linkage between subjective and objective phenomena. Some concepts refer both to subjective behaviour and the objective social conditions in which it takes place. He used the concepts of 'career' and 'emotional labour' as examples. The second kind of concept indicates that certain social actors occupy strategic positions of control and can therefore mediate the effects of systemic aspects on the behaviour of others. Examples are managers and professionals. Third, some concepts characterize the nature of social relations that are influenced by systemic features and also express people's involvements and motivations. Concepts such as 'calculative' or 'alienative' involvement in organizations are examples (Etzioni 1961).

The fourth type of concept is those produced by *general* theorists. Shortly we shall encounter a distinction between *theoretician's* and *researcher's* theories. This fourth type fits in the theoretician's category. We only have to turn to the many books on social and sociological theory to find examples of concepts that have been invented by both classical and contemporary social theorists and that are embedded in their theories of society and social life. The illustrations of the *ontological* conceptual tradition discussed in this chapter provide examples.

Layder lamented the fact that researchers tend to neglect these general concepts, perhaps because they are seen to be unconnected with the 'real' empirical world. He rejected this notion. 'In my view, all general theory is connected with the empirical world in some way. However, . . . general theories differ in terms of their degree of abstraction . . . as well as in relation to the question of how they may be tested or adjudicated' (Layder 1998: 95). He acknowledged that the notion of 'subjective adequacy' has little relevance to general concepts, as they are not meant to be social actors' concepts. Instead, their value has to be judged on the basis of, 'first, the broader context of reasoning in which they are embedded and secondly, their relation to other competing or complementary concepts or theories' (Layder 1998: 95). He argued that researchers need to move beyond the immediate substantive concerns in research and pay attention to the ontological features of social life. This is where theoreticians' concepts and theories come into play.

The research paradigms that were identified in chapter 4, along with the vast body of work of social theorists, provide ontological assumptions and general concepts that social researchers can use to locate their research in existing ways of understanding social life. Just which research paradigms or social theories a researcher chooses to draw on, and how they are used, are the critical issues.

Concepts and Research Strategies

There are some connections worth noting between the research strategies outlined in chapter 4 and these five conceptual traditions. The ontological tradition provides a background to all research, although it is less relevant to, and may be rejected by, researchers who use the Abductive research strategy. While Deductivists may find conceptual schemes very useful as a source of variables, Abductivists may resist the imposition of such 'top down' schemes and prefer to generate their own concepts in a hermeneutic, 'bottom up' manner.

It is in the Inductive and Deductive research strategies that the operationalizing tradition has been most evident.[3] In the Inductive strategy, concepts need to be selected, defined and operationalized. In the Deductive strategy, hypotheses are deduced from a theory, and concepts in a hypothesis are measured in order to test whether or not a hypothesized relationship exists. While it is possible to test hypotheses using other methods, this research strategy has been dominated by the operationalizing tradition. It is worth noting that the sensitizing tradition can also be used in these two research strategies, for example, in an exploratory phase when relevant concepts and their definitions are being sought.

The connection between the Retroductive research strategy and the conceptual traditions is rather complex. Strictly speaking, concepts are not operationalized in this research strategy. Rather, structures and mechanisms are hypothesized and discovered by direct and indirect observations and experiments. Of course, to hypothesize the existence of a structure or mechanism requires the use of language; you have to have some idea of what you are looking for. This may involve adopting or adapting an existing concept, or inventing a new one, to identify it. In this regard, it would be interesting to know how concepts such as 'atom' and 'virus' came to be used.

These comments on the Retroductive strategy apply particularly to the *structuralist* version. The situation is rather different in the *constructionist* version, and is similar to that in the Abductive research strategy. It is in this latter strategy that both the sensitizing and hermeneutic traditions are used, but in different branches. Nevertheless, it is the hermeneutic tradition that is most appropriate for genuine Abductive research. This is because the generation of technical concepts from lay concepts is a hermeneutic process.

Aspects of the 'adaptive alternative' provide the possibility for a more sophisticated use of concepts in all traditions of research but, particularly, when the Deductive and Abductive research strategies are used. Linking the hermeneutic tradition and the use of the Abductive research strategy with *structural* and *general* concepts can lead to more productive theory generation. In addition, the incorporation of both *behavioural* and *structural* concepts, and the bridging of social actors' and sociological concepts in the context of general theory, can only lead to more productive theories to test using the Deductive strategy.

Clearly, these five views of the role of concepts in social research are very different. As a result, researchers have to make choices about which tradition or traditions to use, and, in the process, to make sure that their use is consistent with other research design decisions. While the choice of research strategy will have a big influence on the way concepts are used, a researcher may use concepts in more than one way in a particular research project.

The Role of Theory

One of the most vexed problems for novice researchers is how to use theory in research. Atheoretical research is usually condemned; good research is supposed to involve the use of theory in some way. However, there are many views, and much confusion, about where and how theory should enter into the research process. No doubt, part of the reason for this uncertainty is the fact that the concept 'theory' itself refers to a variety of activities and products.

> Like so many words that are bandied about, the word theory threatens to become meaningless. Because its referents are so diverse – including everything from minor working hypotheses, through comprehensive but vague and unordered speculations, to axiomatic systems of thought – use of the word often obscures rather than creates understanding. (Merton 1967: 39)

The problem is what kind of theory to use, and for what purpose. The situation is further complicated by the existence of a diversity of perspectives in social theory, and differences in the ways in which theory is used in the four research strategies.

Some Definitions of Theory

In order to examine the role of theory in research, we must first be clear about what constitutes social or sociological theory. While the answer to this question may appear to be self-evident, an examination of the literature indicates that there are numerous uses of the concept.

At a general level, theory has been described as 'a heuristic device for organizing what we know, or think we know, at a particular time about some more or less explicitly posed question or issue' (Inkeles 1964: 28), or as 'a "story" about how and why events in the universe occur' (Turner 1991: 1). More specifically, theories 'attempt to answer why and how questions' by 'relating the subject of interest (e.g. riots) to some other phenomena (e.g. heat and crowding)' (Bailey 1994: 41).

Some definitions of theory are even more specific. 'A theory is a set of concepts plus the interrelationships that are assumed to exist among these concepts' (Seltiz *et al.* 1976: 16). 'Sociological theory refers to logically interconnected sets of propositions from which empirical uniformities can be derived' (Merton 1967: 39). 'A theory highlights and explains something that one would otherwise not see, or would find puzzling' (Gilbert 2008: 25).

Therefore, theories provide:

- explanations
- of some aspects of human experience
- that form non-random patterns.

In other words, *social theories are explanations of recurrent patterns or regularities in social life*. They are answers to questions or puzzles about why people behave in the way they do in particular social contexts, and why social life is organized in the way it is. In the context of research design, *a theory is an answer to a 'why' question*; it is an explanation of a pattern or regularity that has been observed, the cause or reason for which needs to be understood.

Types of Theory

Out of this array of definitions of theory it is possible to identify two types in terms of the activities engaged in by practitioners: *theoreticians'* theory and *researchers'* theory (Menzies 1982). This distinction helps us to understand the common complaint that there is a gap between theory and research in the social sciences. This gap refers to the lack of connection between what theoreticians and researchers do, between the ideas discussed in books on social theory and the theoretical ideas that are used in research. Some researchers try to bridge this gap by setting their research within a theoretical perspective. However, the connection is often very tenuous; a perspective may be reviewed in a theory chapter of a thesis and then largely ignored as the research proceeds. Alternatively, an attempt may be made at the end of the research to interpret the results within a theoretical perspective in the hope of staving off accusations of the research being atheoretical. While theory is commonly used in this way, some writers have argued that *post hoc* theorizing is an unsatisfactory use of theory (see, for example, Merton 1967: 147–9).

Theoreticians' theory

Theoreticians' theory is that produced by writers whose aim is to develop an understanding of social life in terms of basic concepts and ideas. Such concepts and ideas are neither derived from social research, nor are they systematically tested by means of research. Their status may be so abstract that they constitute a broad perspective on social life rather than explanatory accounts of it. The *ontological* conceptual tradition discussed earlier in this chapter is an example of *theoreticians'* theory, as is most of the work usually discussed as classical and modern social/sociological theory.

Theoreticians' theory can be both at the macro and micro; it can deal with both large-scale and small-scale social phenomena. Theoreticians feed off each other in the sense that much of their work attempts to synthesize and/or build on earlier theorizing.

Theoreticians' theory can be examined from a number of points of view.

- *The history of social thought*: developments in the understanding of social life and society (e.g. Barnes and Becker 1938; Bogardus 1940; Barnes 1948; Martindale 1960; Becker and Barnes 1961).
- *The work of great theorists*: original works, plus reviews and commentaries (e.g. Aron 1965, 1968; Raison 1969; Coser 1971; Giddens 1971; Beilharz 1991; Ritzer 2003; Craib 1997; Appelrouth and Edles 2008).
- *Theoretical schools or perspectives*: clustering of classical and contemporary

theorists into schools based on common ontological assumptions (e.g. Cuff and Payne 1979; Ritzer 1980, 2005; Jones 1985; Giddens and Turner 1987; Turner 1991; Craib 1992; Scott 1995; Wallace and Wolf 2006; Cuff *et al.* 2006; Ritzer and Goodman 2007a, 2007b)
- *Theorizing strategies*: the establishment of broad categories of theorizing in terms of both ontological and epistemological assumptions (e.g. Johnson *et al.* 1984; Waters 1994; Blaikie 2007).

As the most relevant aspect of *theoreticians'* theory in the present context is *theoretical perspectives*, only these will be discussed here.

Theoretical perspectives provide a way of looking at the social world; they highlight certain aspects while at the same time making other aspects less visible. A shift in theoretical perspective changes the shape of the social world. They provide a particular language, a conceptual framework, or a collection of 'theoretical' concepts and related propositions, within which society and social life can be described and explained. Some perspectives attempt to establish a set of principles that provide the ultimate foundation for social life and a basis for its explanation. In general, theoretical perspectives provide images of society or social life (ontologies), but they do not provide rigorously developed and logically organized theoretical statements (Turner 1991: 29–30).

Classical and contemporary theorists who share similar ontological assumptions and ways of understanding social life are grouped together, and the common elements of their theories abstracted. The concept of *theoretical perspective* is equivalent to the notions of 'general theoretical orientation' (Merton 1967), 'general model' (Willer 1967), 'meta-theory' (Turner 1991), 'foundationalist theory' or 'formal theory' (Waters 1994), and even 'paradigm' (Kuhn 1970; Freidrichs 1970; Krausz and Miller 1974).

Theoretical perspectives are sometimes regarded as paradigms because they include ontological and epistemological assumptions and associated practices for the pursuit of social knowledge (Kuhn 1970; Friedrichs 1970). The advocates of these perspectives differ in the kinds of 'stories' that they tell about social life. They tend to disagree on:

- what topics should be studied (subject matter);
- what the social world looks like and how it works (ontological assumptions);
- what kind of knowledge about human interaction and social organization is possible (ultimate purpose);
- what kinds of questions can be asked;
- what logic of enquiry should be used and how knowledge can be developed (epistemological assumptions); and
- what this knowledge should be used for (objectives) (Wallace and Wolf 2006: 3–13).

Ontological assumptions, which are invariably implicit, include:

- the basic components of social life, including individuals, social processes or social structures;

- how these components relate to each other;
- what human nature is like, i.e. whether human behaviour is essentially determined and therefore predictable, or whether human beings are relatively autonomous and create their own social life, thus making prediction difficult; and
- whether human beings are motivated essentially by interests or by values.

A simple set of major theoretical perspectives has been arrived at by using two overlapping dichotomies, structural vs. interpretive and consensus vs. conflict. This is mainly a British way of viewing social theories and has been used in introductory texts on sociology and social theory (e.g. Cuff and Payne 1979; Jones 1985; van Krieken *et al.* 2005; Haralambos and Holborn 2004; Cuff *et al.* 2006). Three perspectives are commonly identified in these texts:

- structural-consensus (Functionalism);
- structural-conflict (Marxism);
- interpretive (Interpretivism).[4]

Theoretical perspectives have been categorized in other ways. A common set of categories can be found in texts from the United States on social/sociological theory (e.g. Turner 1991; Wallace and Wolf 2006; Ritzer and Goodman 2007a, 2007b), in more recent British texts (e.g. Craib 1992; Scott 1995), and in the North Atlantic collaboration by Giddens and Turner (1987). These classifications include categories such as:

- *functionalism* (Durkheim, Malinowski, Radcliffe-Brown, Parsons, Merton);
- *neo-functionalism* (Luhmann, Alexander);
- *conflict theory* (Marx, Weber, Dahrendorf, Coser, Collins, Rex);
- *rational choice and exchange theory* (Frazer, Malinowski, Mauss, Weber, Homans, Blau, Elster);
- *phenomenology* (Husserl, Schütz, Tiryakian, Bruyn, Berger, Luckmann, Douglas, Psathas);
- *ethnomethodology* (Garfinkel, Cicourel, Sacks, Schegloff, Zimmerman);
- *symbolic interactionism* (Mead, Dewey, Cooley, Thomas, Blumer, Strauss, Becker, Denzin);
- *dramaturgy* (Goffman);
- *structuralism and post-structuralism* (Saussure, Lévi-Strauss, Foucault, Lacan, Althusser, Derrida);
- *critical theory* (Adorno, Horkheimer, Marcuse, Habermas, Fay);
- *structuration theory* (Giddens);
- *feminist theory* (Barnard, Smith, Harding); and
- *complexity theory* (Reed and Harvey, Cillers, Bryne, Capra, Urry).

I am sure you will have noticed an overlap between some of these categories and the research paradigms discussed in chapter 4. The emphasis here is on their theoretical idea whereas the research paradigms concentrate on their methodological contributions, particularly reference to logics of enquiry and ontological

and epistemological assumptions. While this distinction between theory and methodology is not always clear-cut, I selected the set of research paradigms from those in which the methodological considerations are particularly strong.

The Role of Theoreticians' Theory in Research

In spite of the division of labour between *theoreticians'* theory and *researchers'* theory, the former, and, particularly theoretical perspectives, have much to offer the researcher. They can provide:

- a way of viewing the social world, including ontological and epistemological assumptions;
- a language with which to describe and explain aspects of the social world;
- general theoretical ideas to set the context and direction for research; and
- possible explanations or tentative hypotheses.

The first contribution overlaps with a key element of research paradigms. Social reality may be viewed as either 'material' or 'ideal' (Johnson *et al.* 1984), or as either 'subjective' or 'objective' (Waters 1994; Ritzer and Goodman 2007b). People's actions may be regarded as the result of either choice or constraint (humanistic vs. deterministic assumptions), and their relationships based either on agreement about norms and values or on different interests (consensus vs. conflict assumptions). Perspectives also include different epistemological assumptions about how the social world can be known. Social reality can be approached from a nominalist or realist epistemology (Johnson *et al.* 1984), or explained in individualistic or holistic terms (Waters 1994). However, such ontological commitments are not always fully recognized or made explicit.

The second role of *theoreticians'* theory in research, to provide a language, facilitates the statement of research questions and answers to them. Like everyday language, theoretical language provides a vocabulary and meanings for concepts. While the meanings may be more precise than in everyday language, they are still subject to multiple definitions and disputes within and between paradigms. There are fashions in theoretical perspectives, and, therefore, in theoretical language. Such language both facilitates dialogue between adherents to a perspective and excludes the outsider. While the relationship between a theoretical language and everyday language is regarded as the most fundamental methodological issue in the social sciences (Bhaskar 1979; Blaikie 2007), it is also a highly contested one.

The third role of theory is an extension of the second. It provides a context of ideas, or a theoretical framework, which is the source of the focus and direction for the research. The review of a theorist's ideas on an issue, such as Marx's discussion of 'alienation', can set the scene for the collection of particular types of data from particular sources, for example, from factory workers who were formerly rural peasants in a developing country. While the theoretical ideas may not suggest specific hypotheses, they provide the inspiration to pursue research in a particular way.

The final role of theory concerns the source of hypotheses. Theory can be used

either to provide general explanatory ideas to guide research, or, more specifically, to provide possible answers to 'why' questions, i.e. as a source of hypotheses to be tested. The Deductive research strategy has taken the latter to the limit by requiring that hypotheses be logically deduced from a set of theoretical propositions. In this case, a hypothesis is the conclusion to a theoretical argument that provides a tentative answer to a 'why' question. Of course, hypotheses can come from other sources, including previous research.

It is clear that researchers rely on *theoreticians'* theory in a number of ways. However, the extent to which theoreticians use the results of research is much less clear. Certainly, there would appear to be few explicit connections in the literature. The exceptions are the rare cases where a researcher is also a theoretician (e.g. Bourdieu).

Researchers' Theory

Researchers' theory is either theory that produces specific hypotheses to be tested, or theory that is generated in the course of the research. It is possible to construct a composite definition of *researchers'* theory as consisting of:

- a related set of statements
- about relationships between concepts
- with a certain level of generality
- which are empirically testable; and which,
- when tested, have a certain level of validity.

These theories provide explanations of regularities in social life at a level that is directly relevant to research.

Each of the research strategies gives a particular interpretation of this definition. In the Inductive strategy, general statements are related in networks, while in the Deductive strategy, these statements are related logically and have different levels of generality. Although the Retroductive research strategy only requires a description of the generative structure or mechanism, it may require discursive support for their operation. This may take the form of a theoretical argument, but less formalized than in the Deductive strategy. In the Abductive research strategy, theory may take many forms, from tight logical arguments to loose discussions. However, in the end, theories in all four research strategies need to be reduced to statements of relationships between concepts. We will return to these differences between the research strategies towards the end of the chapter.

An important issue for a researcher is where to get a suitable theory. In the absence of a good existing theory, Stinchcombe has argued that you should make them up yourself, a task that he regarded as being manageable even for students: 'A student who has difficulty thinking of at least three sensible explanations for any correlation that he [*sic*] is really interested in should probably choose another profession' (Stinchcombe 1968: 13).

Levels of Theory

Another way of approaching the diversity in theoretical activity is to view theory as occupying different levels. Denzin (1970), for example, has slightly elaborated the scheme developed by Parsons and Shils (1951) by proposing five levels:

- *ad hoc* classificatory systems;
- categorical systems or taxonomies;
- conceptual frameworks;
- theoretical systems; and
- empirical-theoretical systems.

These five levels are intended to move from 'mere' description, through patterns of relationships, to explanatory schemes, and then to empirical testing of the theoretical ideas.

Ad hoc classificatory systems are used to summarize data. The classes or categories are more or less arbitrary and no attempt is made to establish relationships between them. They are just labels for particular observations or data, and are normally not derived from any theory. For example, students might be classified as 'very bright', 'serious', 'average', 'lazy' and 'dumb', as well as 'older' and 'younger', and 'female' and 'male'. Such classifications are not theoretical but may later be incorporated into a theoretical scheme.

A categorical system or taxonomy moves beyond *ad hoc* classification, although it is still tied closely to a particular context or limited range of phenomena. Now the relationships between the classes or categories are stated. For example, the classification of students into their level of ability and attitude to their work (a mixed classification that would need to be refined into at least two separate dimensions) could be related to their age or gender. Research might then match the relationships with some data, but the activity remains at the level of description.

Conceptual schemes take us to a higher level by presenting a systematic image of the world (as in the *ontological* tradition). These schemes lend themselves to the development of propositions about relationships between concepts, and are intended to apply to a wide range of situations. Some conceptual schemes claim to represent society and its constituent parts (see figures 5.2 and 5.3). A more limited example might deal with concepts involved in predicting 'academic performance': 'level of ability', 'attitudes to study', 'age', 'gender', 'social class background', 'type of schooling' and 'career aspirations'. These concepts could be developed into a scheme of relationships, including some assumptions about causal connections.

Theoretical schemes bring together combinations of taxonomies and conceptual schemes into a theoretical argument. Now explanation is the aim. However, these schemes are likely to be rather abstract and not in a form that can be used directly in research. This requires another step, the establishment of empirical–theoretical schemes that are formulated precisely and in such a way that they can be tested. Hence, only these last two levels in the list can be regarded as being truly theoretical, and only the last connects theory with research.

Another basis for differentiating between levels of theory is to consider their scope. Again, Denzin (1970) has proposed four main levels: *grand* theories, *middle-range* theories, *substantive* theories and *formal* theories. *Grand* theories, or system theories, present a master conceptual scheme that is intended to represent the important features of a total society. These are often referred to as macro-theories because they apply to large-scale social phenomena. Merton referred to these as 'general sociological orientations' that

> involve broad postulates which indicate *types* of variables which are somehow to be taken into account rather than specifying determinate relationships between particular variables. . . . The chief function of these orientations is to provide a general context for inquiry; they facilitate the process of arriving at determinate hypotheses. (Merton 1967: 142)

Middle-range theories, a notion coined by Merton, lie between grand theories and empirical generalizations.

> [M]iddle range theories have not been logically *derived* from a single all-embracing theory of social systems, though once developed they may be consistent with one. Furthermore, each theory is more than a mere empirical generalization – an isolated proposition summarizing observed uniformities of relationships between two or more variables. A theory comprises a set of assumptions from which empirical generalizations have themselves been derived. (Merton 1967: 41)

Nevertheless, these theories (e.g. a theory of reference groups – Merton's example) are intended to apply to a variety of contexts and research problems. I shall elaborate Merton's ideas on middle-range theories in the next section of this chapter.

The third level referred to by Denzin, *substantive* theories, does apply to specific problem areas such as race relations and juvenile delinquency. Both middle-range theories and substantive theories are stated at a level that a researcher can use. They can also be combined, for example, by using reference group theory as part of a theory of race relations.

Finally, the development of *formal* theory is based on the now contested idea that universal explanations of social life can be developed. While the content may be different in different contexts, the form of these theories will be the same. Simmel, Goffman and Homans were all committed to the idea that the development of formal theory is possible. Homans, for example, claimed that social behaviour could be explained in terms of a few psychological principles. One of his principles was: 'For all actions taken by persons, the more often a particular action is rewarded, the more likely the person is to perform that action' (Homans 1974: 16).

Relationship between Theory and Research

The relationship between theory and research was a topic of considerable interest in the United States during the 1950s and the 1960s, largely as a result of the