



Case

Study

Method

Edited by
Roger Gomm,
Martyn Hammersley,
and Peter Foster

CASE STUDY METHOD

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Key Issues, Key Texts

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PREFACE

We had the idea for this book when the three of us were writing a set of conference papers on case study research in late 1997 and early 1998. In the course of this, we gained a reasonably comprehensive sense of the literature in the field, of what could be learned from it, and of what were the key issues that needed to be addressed. And we were surprised to find that, while there were several collections of articles dealing with case study, none of them brought together the most influential and important articles. Indeed, we noted that the literature was fragmented across different disciplines and topic areas, with little sign of any cumulative understanding of the problems this kind of research raises. As a result, we decided to continue our collaboration to produce a book that would bring a little more coherence to the field.

Most books take longer to produce than anticipated, and it is usually a relief to reach the point of writing the preface: by that time most of the work has been done. In this case, however, pleasure is mixed with deep sorrow because one of us, Peter Foster, died at the beginning of 1999, when we were still in the throes of editing the collection and finalizing our contributions to it. There is a great deal of him in the book; it was the fruit of a collaboration spreading over many years. We are very sad that he did not see it completed. We still miss his voice in our discussions, and are only too painfully aware of how much his family also miss him.

Roger Gomm and Martyn Hammersley

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INTRODUCTION

Martyn Hammersley and Roger Gomm

In the early 1980s, Jennifer Platt and J. Clyde Mitchell both commented, in separate articles, on what Mitchell referred to as 'the eclipse of interest in case studies as a method of sociological research' (see Mitchell, Chapter 7, this volume; Platt, 1981). The situation is very different today. Case study research has become extremely popular in sociology and also in many other areas of social inquiry. However, this story of demise and resurrection is misleading. To a large extent, it traces the fortunes of the *term* 'case study', rather than the history of the research approach or approaches to which it refers. Indeed, one of the problems with the phrase 'case study' is that it is not used in a standard way. This stems from the fact that what it has been contrasted with has varied considerably. Furthermore, in some of its uses the meaning of the term has overlapped substantially with that of others – notably with 'ethnography', 'participant observation', 'fieldwork', 'qualitative research' and 'life history'.

To complicate matters further, the notion of case study is not restricted to the research context. Lawyers deal with cases, so do detectives, medical practitioners, social workers and others; and, for this reason, the case method has been an influential component of several fields of professional education, and has also figured significantly in the training of managers, most famously at the Harvard Business School. Indeed, it seems likely that case study *research* arose out of, or at least was strongly influenced by, case study approaches in other fields. Thus, Becker (1968) traces it back to the medical model, while Platt (1981) notes that 'historically, the origin of the idea of case study [in American sociology] seems to have had a lot to do with the social worker's "case history" or "case work"' (p. 19). She notes that data from social work case records were used in some early studies that have come to be treated as classics of case study inquiry, notably Thomas and Znaniecki's *The Polish Peasant in Europe and America* (1918–20). Furthermore, while – in general – case study research has become increasingly distant from the practical treatment of cases, this is not always true. Thus, Bromley (1986) discusses case study in psychology as a form of clinical science (he also refers to it as a 'quasi-judicial' method), in which the aim is not just to develop knowledge but also to search for a remedy to some problem present in the case. A slightly

different link to professional practice is provided by Stenhouse's argument for case study in education. He sees this as concerned with the development and testing of curricular and pedagogical strategies (Stenhouse, 1975, 1978, 1980); and locates it within a conception of the teacher as researcher, an idea which has stimulated a flourishing classroom action research tradition in Britain, Australia and elsewhere. A similarly close relationship between case study research and attempts to solve practical problems can also be found in some other areas, including management studies (see Eisenhardt, 1989).

The existence of close links between case study inquiry and various forms of occupational practice has sometimes been regarded as a weakness, as indicating the less-than-scientific or even unscientific character of this kind of research. However, such criticism has become less common, and less widely accepted, in recent years. One reason for this has been growing public suspicion of science, and increasing doubts about the possibility or desirability of a science of social life. Equally significant has been greater emphasis on the need for research of all kinds to be practically applicable, or even for it to be integrated into practical activities (see Gibbons et al., 1994). At the same time, these trends have by no means eliminated the commitment of some case study researchers to a scientific approach, interpreted in a variety of ways.

So, 'case study' is not a term that is used in a clear and fixed sense. Given this, our first task is to sketch the central components of its meaning.

What is case study research?

In one sense all research is case study: there is always some unit, or set of units, in relation to which data are collected and/or analysed.¹ Usually, though, the term 'case study' is employed to identify a specific form of inquiry; notably, one which contrasts with two other influential kinds of social research: the experiment and the social survey. And we can use these contrasts to mark the boundaries of the currently accepted meaning of the term; though a *range* of dimensions is involved, so that the meaning is fuzzy-edged.

The most important dimension relates to the *number of cases* investigated. Another, closely related, one is the *amount of detailed information* that the researcher collects about each case studied. Other things being equal, the fewer cases investigated, the more information can be collected about each of them. Many social surveys gather only a relatively small amount of data from each case (cases here are usually, though not always, individual respondents: see Platt, 1992). We can contrast this with research in which large amounts of information are collected about one case, across a wide range of dimensions; here the case may

be an individual (as in life-history work), an event, an institution or even a whole national society. So, usually, 'case study' refers to research that investigates a few cases, often just one, in considerable depth.²

Number of cases studied and amount of information collected about each case are not the only dimensions built into the concept of case study, as it is used in social research today. A further element in the meaning of the term is highlighted by the contrast with experimental research. While the latter also usually involves the investigation of a small number of cases compared to survey work, what distinguishes it from case study is not so much the amount of data collected as the fact that it involves direct control of variables. In experiments, the researcher *creates* the case(s) studied, whereas case study researchers construct cases out of naturally occurring social situations.

The term 'case study' is also often taken to carry implications for the *kind* of data that are collected, and perhaps also for how these are analysed. Frequently, but not always, it implies the collection of unstructured data, and qualitative analysis of those data. Moreover, this relates to a more fundamental issue about the purpose of the research. It is sometimes argued that the aim of case study research should be to capture cases in their uniqueness, rather than to use them as a basis for wider generalization or for theoretical inference of some kind. And this is often held to require a narrative approach rather than one framed in terms of variable analysis.

Closely related is the question of objectivity. Is the aim to produce an account of each case from an external or research point of view, one that may contradict the views of the people involved? Or is it solely to portray the character of each case 'in its own terms'? This contrast is most obvious where the cases are people, so that the aim may be to 'give voice' to them rather than to use them as respondents or even as informants. (Table 1 summarizes these various dimensions of the meaning of 'case study'; and the similarities and differences between this approach, on the one hand, and experimental and survey research, on the other.)

Method or paradigm?

Some commentators treat case study as a method – to be used as and when appropriate, depending on the problem under investigation. Like other methods, it is believed to have both advantages and disadvantages. However, even from this point of view there can be variation in the specific form that case study research take:

- in the number of cases studied, and the role of comparison;
- in how detailed the case studies are;

Table 1 A schematic comparison of case study with experimental and survey approaches

Experiment	Case study	Survey
Investigation of a relatively small number of cases.	Investigation of a relatively small number of cases (sometimes just one).	Investigation of a relatively large number of cases.
Information gathered and analysed about a small number of features of each case.	Information gathered and analysed about a large number of features of each case.	Information gathered and analysed about a small number of features of each case.
Study of cases created in such a way as to control the important variables.	Study of naturally occurring cases; or, in 'action research' form, study of cases created by the actions of the researcher but where the primary concern is <i>not</i> controlling variables to measure their effects.	Study of a sample of naturally occurring cases; selected in such a way as to maximize the sample's representativeness in relation to some larger population.
Quantification of data is a priority.	Quantification of data is <i>not</i> a priority. Indeed, qualitative data may be treated as superior.	Quantification of data is a priority.
The aim is either theoretical inference – the development and testing of theory – or the practical evaluation of an intervention.	The main concern may be with understanding the case studied in itself, with no interest in theoretical inference or empirical generalization. However, there may also be attempts at one or other, or both, of these. Alternatively, the wider relevance of the findings may be conceptualized in terms of the provision of vicarious experience, as a basis for 'naturalistic generalization' or 'transferability'.	The aim is empirical generalization, from a sample to a finite population, though this is sometimes seen as a platform for theoretical inference.

- in the size of the case(s) dealt with;
- in the extent to which researchers document the *context* of the case, in terms of the wider society and/or historically;
- in the extent to which they restrict themselves to description and explanation, or engage in evaluation and prescription.

Variation in these respects depends to some extent on the purpose that the case study is intended to serve. Where it is designed to test or illustrate a theoretical point, then it will deal with the case as an instance of a type, describing it in terms of a particular theoretical framework (implicit or explicit). Where it is concerned with developing theoretical

ideas, it is likely to be more detailed and open-ended in character. The same is true where the concern is with describing and/or explaining what is going on in a particular situation for its own sake. Where the interest is in some problem in the situation investigated, then the discussion will be geared to diagnosing that problem; and identifying its sources and what can be done about it. Moreover, here, the analysis will go beyond description and explanation to include evaluation and prescription.

Many commentators, however, regard case study as more than just a method: as involving quite different assumptions about how the social world can and should be studied from those other underlying approaches (see, for example, Hamilton, 1980; Simons, 1996). In other words, it is seen as a distinct research paradigm. Sometimes, this is formulated in terms of a contrast between positivism, on the one hand, and naturalism, interpretivism or constructionism, on the other. At the extreme, case study is viewed as more akin to the kind of portrayal of the social world that is characteristic of novelists, short-story writers and even poets. Those who see case study in this way may regard as fundamentally misconceived any comparison of it with other methods in terms of advantages and disadvantages.

A series of methodological issues arise from these differences in view about the purpose and nature of case study; and these have been subject to considerable debate:

- 1 *Generalizability*. In some case study work the aim is to draw, or to provide a basis for drawing, conclusions about some general type of phenomenon or about members of a wider population of cases. A question arises here, though, as to how this is possible. Some argue that what is involved is a kind of inference or generalization that is quite different in character from statistical analysis, being 'logical', 'theoretical' or 'analytical' in character (Mitchell, Chapter 7; Yin, 1994). Others suggest that there are ways in which case studies can be used to make what are in effect the same kind of generalizations as those which survey researchers produce.³ Still others argue that case studies need not make any claims about the generalizability of their findings, that what is crucial is the use others make of them: that they feed into processes of 'naturalistic generalization' (Stake, Chapter 1; Donmoyer, Chapter 3), or facilitate the 'transfer' of findings from one setting to another on the basis of 'fit' (Lincoln and Guba, Chapter 2; Guba and Lincoln, 1989).
- 2 *Causal or narrative analysis*. Case study researchers sometimes claim that by examining one or two cases it is possible to identify causal processes in a way that is not feasible in survey research (Connolly, 1998). This is because the case(s) are studied in depth, and over time rather than at a single point. It is also often argued that, by contrast with experiments, case study research can investigate causal processes

'in the real world' rather than in artificially created settings. Other formulations of this argument emphasize that outcomes can always be reached by multiple pathways, so that narrative accounts of events in particular cases are essential if we are to understand those outcomes (see Becker, Chapter 11). Here, parallels may be drawn with the work of historians. However, whichever form this argument takes, there are questions about how to distinguish contingent from necessary relationships among events if only one or a small number of cases is being studied, and about what role theory plays in causal/narrative analysis (see Hammersley et al., Chapter 12).

Some case study researchers argue that they can identify causal relations through comparative analysis, for example by means of John Stuart Mill's methods of agreement and difference or via analytic induction. Sometimes, comparative method is seen as analogous to statistical analysis (Skocpol, 1979, pp. 35–6); but, often, a sharp distinction is drawn between the 'logics' involved in 'statistical' and 'case study' work (see, for example, Mitchell, Chapter 7; and Becker, Chapter 11). Nevertheless, questions have been raised about whether there is any such difference in logic (Robinson, Chapter 8); as well as about the adequacy of Mill's canons and of analytic induction as a means of producing theory via case study (Liebersohn, Chapter 10; Goldenberg, 1993).

- 3 *The nature of theory.* While many case study researchers emphasize the role of theory, they differ in their views about the nature of the theoretical perspective required. For some it must be a theory which makes sense of the case as a bounded system (see, for instance, Smith, 1978). Here, the emphasis is on cases as unique configurations that can only be understood as wholes. For others, the task of theory is more to locate and explain what goes on within a case in terms of its wider societal context (see Sharp, 1982 and Burawoy, 1998). Without this, it is argued, intra-case processes will be misunderstood. Indeed, it is often argued that analysis of a case always presumes some wider context; so the issue is not whether or not a macro theory is involved but rather how explicit this is and whether it is sound.
- 4 *Authenticity and authority.* Sometimes, case study research is advocated on the basis that it can capture the unique character of a person, situation, group, and so on. Here there may be no concern with typicality in relation to a category, or generalizability to a population. The aim is to represent the case authentically: 'in its own terms'. In some versions, this is seen as a basis for discovering symbolic truths of the kind that literature and art provide (see Simons, 1996). There are questions here, though, about what this involves. After all, different aesthetic theories point in divergent directions.⁴

The commitment to authenticity may also be based on rejection of any claim to authority on the part of the case study researcher,

and/or on the idea that case study can be used to amplify the unique voices of those whose experience in, and perspective on, the world are unknown, neglected or suppressed. However, questions have been raised about this position, not just by those committed to the natural science model or by those who emphasize the role of macro theory, but also by some constructionists and postmodernists. Their arguments undermine the notion of authenticity by denying the existence of any real situation that is independent of investigations of it; by questioning the legitimacy of researchers speaking on behalf of (or even acting as mediators for) others; and/or by challenging the idea that people have unitary perspectives which are available for case study description.

In editing this book, we have not adopted any particular line about the proper nature of case study research. Indeed, our aim has been to display the range of views to be found in the literature; especially about the first and second issues listed above, since these have been given the most attention. Our own views are presented in the two chapters we have written.

An outline of the contents

In the first half of the book we collect together articles that address the question of whether case study research can and should draw general conclusions; and, more specifically, whether it can draw conclusions of the kind that are characteristic of survey research. In the opening chapter, a widely cited paper entitled 'The case study method in social inquiry', Robert Stake argues that case studies can have general relevance even though they may not provide a sound basis for scientific generalization of a conventional kind. Moreover, he suggests that if research is to be of value to people, it needs to be framed in the same terms as the everyday experience through which they learn about the world firsthand. So, the great strength of case studies, he argues, is that they provide vicarious experience, in the form of 'full and thorough knowledge of the particular'. In doing this they facilitate what he calls 'naturalistic generalization', and thereby build up the body of tacit knowledge on the basis of which people act. Indeed, Stake suggests that, by contrast with naturalistic generalization, abstract propositional generalizations of the kind aimed at by conventional social science can be harmful in practical terms: false laws foster misunderstandings, and even true laws distract attention from direct experience and may lead people to see phenomena more simplistically than they should. The conclusion that he draws is that what is required of case study researchers is not that they provide generalizations but rather that they describe

the case they have studied properly: in a way that captures its unique features. For Stake, a case is a bounded system that exists independently of inquiry; and he emphasizes the importance of respecting the boundaries of the case – in particular, of coming to understand how people operating within it view their world (see also Stake and Trumbull, 1982; Stake, 1994).

In Chapter 2, entitled ‘The only generalization is: there is no generalization’, Lincoln and Guba begin by criticizing the frequently held idea that generalization is the aim of science; in the sense of the discovery of laws. They attribute this belief to positivism, and identify a number of problems with it. They suggest that it depends on: the assumption of determinism; the possibility of inductive logic; the idea that we can produce knowledge that is free of time and context; the belief that law-like generalizations can provide a self-sufficient basis for understanding and action in particular cases; and a discredited reductionism. They then examine the alternative to law-like generalization put forward by Stake: naturalistic generalization. They point to some uncertainties in this, in particular about whether it is tacit or propositional in character. Furthermore, they argue that we are not faced with a choice between either searching for general laws or studying the unique; that between these extremes there is ‘the broad range of the related’. In other words, there are ways of stating conclusions from studying one context that might hold in another context. More specifically, case study research produces ‘working hypotheses’ (Cronbach, 1975, p. 125) that can be used in attempts to understand other cases. Lincoln and Guba argue that transferability of conclusions from one case to another is a function of the similarity, or ‘fit’, between the two. And, for judgements about this to be possible, researchers must provide ‘thick descriptions’ of the cases they study. In the final section of the chapter the authors appeal to the analogy of holographic film, one of whose features is that any fragment of it can produce the whole picture. The implication is that case studies can do the same.

In Chapter 3, Donmoyer builds on the work of Stake, and Lincoln and Guba, seeking to provide a more adequate account of the concept of naturalistic generalization. He argues that adopting the approach to generalizability enshrined in quantitative research, and concerned with identifying law-like regularities, is not appropriate in applied areas like education. This is because it assumes a model of the applicability of research findings, in terms of using empirical generalizations to control action, which is unacceptable in these cases – given that practice there deals with unique situations. Donmoyer further suggests that the complexity of the social world, and the assumption-laden nature of all knowledge, also undermines adoption of the conventional model of science. However, he finds recent moves toward a qualitative understanding of generalizability insufficiently developed, and reliant on

some false assumptions. For example, he criticizes Lincoln and Guba for assuming that we can only use knowledge from one case to understand another when the two cases are *similar*. Instead, he argues that *differences* can be equally illuminating. He also suggests that their notion of working hypotheses, derived from Cronbach, fails to recognize the way in which tacit knowledge is rendered communicable by being turned into narrative form. Furthermore, he underlines that what is involved here is not just a matter of cognition but also of affect. Like Stake, he bases his approach to generalizability on experiential knowledge, knowledge that is tacit rather than propositional. In order to clarify the nature of this knowledge he employs Piaget's schema theory, in which learning takes place by assimilation and accommodation, leading to integration and/or differentiation of what is known. In these terms, case studies may facilitate learning by substituting for firsthand experience; indeed, they may be more effective than real life because they are less threatening. Above all, they have important advantages over more conventional kinds of research product: in accessibility, and in portraying events from a personal perspective.

In the next chapter, Schofield takes a rather different line. While she rejects the idea that generalizability consists of the production of laws, she insists that this does not rule out case study researchers putting forward general conclusions. And she argues that two key questions must be addressed in thinking about generalizability: to *what* do we want to generalize; and how can we design qualitative studies so as to maximize the generalizability of their findings in this respect? Addressing these issues, she distinguishes between generalizing to what *is*, to what *may be*, and to what *could be*. In discussing each sort of generalization, she identifies useful strategies and illustrates them with examples. In addition, she examines strategies for generalization on the basis of already published work, through the 'aggregation or comparison of independent studies'. She discusses three of these strategies: Yin and Heald's 'case survey method' (Yin and Heald, 1975), Ragin's qualitative comparative method (Ragin, 1987), and Noblit and Hare's 'meta-ethnography' (Noblit and Hare, 1988).

In the final chapter in this section, Gomm et al. begin by addressing the question of whether naturalistic generalization or transferability – as advocated by Stake, Lincoln and Guba, and Donmoyer – offers an alternative to the drawing of general conclusions by case study researchers. They argue that it does not. Furthermore, they claim that case study research is not barred from producing general conclusions of the kind that survey researchers pursue. To assume that this is impossible, they suggest, is to forget that statistical sampling theory is not the only basis for drawing such conclusions; and that, even though a highly effective one, it is often not usable. Moreover, they point out that, in practice, case study researchers often *do* claim this kind of general conclusion. The

authors draw a distinction between generalization across and within cases; pointing out that the latter is virtually unavoidable in case study work. In the central sections of the chapter, they outline the strategies case study researchers can use to make these two sorts of empirical generalization. However, at the same time, they underline the serious danger of drawing misleading conclusions about aggregates and trends from the study of a few cases; or of mistaking what is going on in one part of a case as representative of what is going on elsewhere.

The second part of the book is concerned with influential arguments to the effect that the main task of case study research is to develop and test theoretical ideas. In Chapter 6, writing in the context of political science, Eckstein argues that case study is valuable at all stages of inquiry, but particularly in testing theories. He defines a 'case' as 'a phenomenon for which we report and interpret only a single measure on any pertinent variable' (p. 124), and contrasts it with comparative analysis, by which he means large-scale quantitative studies dealing with several countries. The aim of case study, he suggests, is to contribute, with other strategies, towards theorizing which is designed to arrive at 'statements of regularity about the structure, behaviour and interaction of phenomena'. He outlines different stages of inquiry – from developing explanations for particular events, through theory application, to theory development and testing – and then identifies and elaborates the various types of case study suited to each. One of the most distinctive features of the discussion here is his argument that while the social world is multivariate in phenomenal terms, in reality it may be no more so than the physical world; so that it could be possible to identify a few powerful theories that account for much of the variation, with case study playing an important role in this task.

In 'Case and situation analysis', Mitchell puts forward a similar argument to Eckstein, but writes from the point of view of sociology and social anthropology rather than political science. He contrasts case study with the social survey, and argues that whereas the latter is concerned with representativeness – with describing social morphology – case study is designed to draw inferences about general, abstract theoretical principles which the case is taken to exemplify. He elaborates Gluckman's distinction between the apt illustration, the social situation and the case study (Gluckman, 1961), and outlines Eckstein's typology, distinguishing heuristic case studies, plausibility probes and crucial case studies. He draws a sharp distinction between statistical inference, from sample to population on the basis of random sampling, and logical inference, which involves identifying an 'essential linkage between two or more characteristics in terms of some systematic explanatory schema'. He clarifies this distinction through a discussion of the contrast between enumerative and analytic induction, drawing on the work of Znaniecki and Turner. Central to case study work – for Mitchell – is identifying the

essential, theoretically conceptualized processes embodied in a case, rather than representing it in its uniqueness or using it as a basis for wider survey-type generalizations.⁵

In Chapter 8, an article that was written in the early 1950s, Robinson provides a detailed analysis of the logic of analytic induction; this often being held to underpin case study research. He examines it as 'a research procedure', 'a method of causal analysis' and 'a method of proof'. He argues that Znaniecki's sharp distinction between enumerative and analytic induction is unconvincing. He suggests that it is a product (on one side) of the failure of much statistical work to pursue the investigation of deviant cases and (on the other) of the formulation of analytic induction in such a way as only to investigate necessary, not sufficient, conditions for the occurrence of a phenomenon. Robinson insists that an adequate scientific explanation requires the specification of both necessary and sufficient conditions. From this point of view, the only remaining difference between analytic and enumerative induction is that the former is committed to deterministic rather than probabilistic generalizations. He argues that while it is proper to try to approximate deterministic laws, we must recognize that even natural science now involves probabilistic ones. And, as a result, modern views of science underline the need for strategies designed to ensure representative sampling in sociological investigations. In short, Robinson argues that, once the respective practical failings of enumerative and analytic induction are remedied, we are left with a single form of scientific inference.

In response to Robinson's critique, Ralph Turner's article 'The quest for universals in sociological research' (Chapter 9) examines the arguments in support of analytic induction. He claims that Robinson translates analytic induction into the terms of statistical method, and thereby misinterprets it. Turner explores some examples of analytic induction in use (notably those of Lindesmith, 1937 and Cressey, 1950; 1953), concurring with Robinson that, generally speaking, it does not provide the basis for empirical prediction. However, rather than seeing this as a failing, and as requiring a reformulation of analytic induction along statistical lines, he presents it as reflecting a fundamental difference in purpose between analytic and enumerative induction. The task of the former, he suggests, is to discover definitions of scientific concepts that capture the 'universal and uniform' relationships operating within closed, causal systems. Moreover, these relationships are logical ones, so that cause is not independent of effect. He argues that these systems are put into operation by external factors, but that the effects of those factors are always mediated by the system. As a result, the relationship between outside factors and the outcomes from the system is always a matter of probability, rather than being deterministic. For example, in discussing Cressey's theory of embezzlement, Turner points out that while, according to this theory, a 'non-shareable problem' *always* leads

to 'financial trust-violation' (when other specified conditions are met), the occurrence of non-shareable problems itself is produced by factors outside the theoretical system (such as gambling debts and extra-marital affairs) whose relationship to the decision to embezzle can only be probabilistic. On this basis, Turner argues that analytic and enumerative induction are complementary. The identification of closed systems provides a basis for 'organizing and interpreting observed statistical associations': 'It is through conceiving the "essential" conditions in a closed system as the avenues through which correlated factors can operate as causes, that generalizations about closed systems can escape their self-containment, and probability associations may be organized into meaningful patterns' (p. 206). In other words, theories representing closed causal systems can be used to interpret empirical correlations found by enumerative induction, thereby providing for complex, multivariate explanations and predictions. Equally important, they can point to factors outside the causal system whose relationship to the phenomenon concerned might be worth investigating through statistical method.

In a much more recent article, Lieberson examines the rationale behind case study research from a position that is similar in many respects to that of Robinson. He starts from a dispute within comparative history about the possibility of drawing general conclusions from the study of a small number of cases. This dispute was focused on Skocpol's investigation of 'successful social revolutions', notably the French, Russian and Chinese revolutions (Skocpol, 1979; Nicols, 1986; Skocpol, 1986). In justifying this kind of comparative historical analysis Skocpol appeals to J.S. Mill's methods of agreement and difference (Mill, 1843). Lieberson notes that, like analytic induction, these methods assume that causal relations are deterministic – implying that *X* always produces *Y* rather than simply that *X* tends to produce *Y*. And he argues that, whether we assume deterministic or probabilistic causal theories, we usually have to rely on probabilistic results. This is because of measurement error, the multivariate nature of causation in the social world, and the fact that often we cannot measure all the factors that we believe influence what we are investigating. Lieberson then outlines some problems with using Mill's two methods in the analysis of small numbers of cases, using the example of road accidents. Looking first at the method of difference, he argues that it simply *assumes* that there are no interaction effects: that whatever is constant cannot affect the outcome. He notes that this does not seem a reasonable assumption as regards traffic accidents, or about social phenomena more generally. In relation to the method of agreement, he argues that this assumes that there is only one cause of the phenomenon concerned. Yet, in the case of road accidents, it is fairly clear that there are multiple causes; and this is true of many other types of event. Furthermore, he points out that both of Mill's methods are extremely vulnerable to the exclusion of relevant variables: different

conclusions will be reached depending on which variables are included. However, there is a dilemma here: the more variables that are taken into account, the less likely is any clear result to be achieved from these methods, especially when the number of cases is small. So, Lieberman's conclusion is that using Mill's methods with a small number of cases is fraught with difficulties. It requires zero measurement error, and therefore careful attention to where the cut-off points are drawn – for example between a driver being drunk and not being drunk. It also makes assumptions about the phenomena under investigation – that there are single causes and no interaction effects; assumptions which cannot be tested through the method itself, and which are highly implausible. He concludes that this kind of comparative case analysis may be usable in some areas, but that its validity remains to be demonstrated.

In Chapter 11, Howard Becker argues that case study research is based on a different logic from that taken for granted by Lieberman's approach. He points out how the latter assumes that all the variables studied operate simultaneously and independently, and that this is false. He therefore examines Ragin's version of comparative analysis (Ragin, 1987), which recognizes that variables operate in concert. However, Becker also finds this unsatisfactory. He emphasizes that case study work is interested in processes; in other words, it recognizes that variables impact at different point in time, as events unfold. Given this, he suggests that a more appropriate method is narrative analysis, concerned with capturing the processes by which various outcomes are produced over time.⁶ He takes the classic studies employing analytic induction, those of Lindesmith and Cressey, as exemplifying this narrative approach. He points out how analytic induction requires the construction of hypotheses and reconceptualization of the dependent variable in such a way as to render the latter causally homogeneous. He argues that this relies on social imagery, in order to make sense of the kinds of causal processes that could be involved. Furthermore, the narrative analyses that result are deterministic in character: they do not tell us that an outcome is likely but, rather, why it occurred; and they do this by documenting the path that led to it. Becker concludes by outlining a number of problems, relating to generalization from case studies, that need further consideration.

In the final chapter, Hammersley et al. examine the idea that general conclusions can be drawn from case studies by means of theoretical inference. They discuss two approaches to this. The first assumes that causal relationships can be uncovered through in-depth study of a single case, by relying on direct perception and/or on empathy. They suggest that this assumption is false, and that only the second approach, comparative analysis, can provide a sound basis for theoretical conclusions. Here, they outline the history of J.S. Mill's 'eliminative induction' and of Znaniecki's 'analytic induction', two versions of theoretical

inference that have been widely appealed to by case study researchers. It is argued that these share much in common, but also serve as a corrective to one another: they point the way to a form of comparative analysis that could identify the necessary and sufficient conditions underlying causal relationships – at least in principle. However, the authors also highlight some problems which remain with case study researchers' reliance on comparative method. Notable here is the fact that it assumes the existence of universal laws of human behaviour. Furthermore, these have to be deterministic, rather than probabilistic, in character. Yet case study researchers today generally reject the possibility of laws. Hammersley et al. conclude that how serious an obstacle these problems are to achieving sound theoretical conclusions through comparative case analysis can only be discovered by pursuing that goal in full awareness of the difficulties involved.

Conclusion

This book brings together a range of key articles dealing with case study research, and especially with its capacity to produce general conclusions. Some of the chapters (for example, those by Stake, Lincoln and Guba, and Donmoyer) suggest that this is unnecessary or impossible, arguing in favour of thick description, naturalistic generalization and/or transferability. Others (those by Schofield and Gomm et al.) suggest that case study research can provide the basis for empirical generalization of the kind that survey researchers aim at, and they outline some of the strategies available for doing this, and some of the problems involved. The second half of the book is concerned with theoretical inference. It presents the most influential statements about the capacity of case study research to produce theoretical conclusions (the chapters by Eckstein, Mitchell, Turner and Becker), as well as articles which raise questions about various aspects of this (those by Robinson, Lieberson and Hammersley et al.). We hope that this collection will be of interest and use to all those who carry out or read case study research; and that presenting the various arguments side by side will assist in clarifying the nature and potential of this kind of work.

Notes

1 Ragin (1989, pp. 7–9) points out that the reference of 'case' need not coincide with that of 'unit of analysis'; see also Hammersley and Atkinson's (1995, pp. 40–2) distinction between 'setting' and 'case'.

2 The relationship between depth of investigation and number of cases is complicated by other factors, not least by the scale of the cases studied: the larger the case, other

things being equal, the less depth of investigation is possible. For example, if classroom lessons in schools are the cases with which a researcher is concerned, it may be possible to study a substantial number of them in considerable detail. If national education systems are the cases, however, there will be much greater tension between the number studied and the amount of detailed information that can be collected about each one; unless all the relevant information is already available via national statistics or some other readily accessible source. For more discussion of this tension, see Hammersley (1992, Chap. 11).

3 This seems to be the implication of Schofield's argument (Chapter 4). See also Gomm et al., Chapter 5.

4 Some of the scope for disagreement here is illustrated by the dispute between those who advocate realism in literature and art, and those who deny that these can or should be mimetic. See, for example, the debates about aesthetics and politics within German Marxism in the early part of this century (Adorno et al., 1977).

5 For a critical assessment of Mitchell's argument, see Hammersley (1992, Chap. 10).

6 'Narrative' here refers to the form of analysis; it does not necessarily indicate a focus on the study of narratives supplied by informants.

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