Qualitative/Quantitative

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The choice between different research **methods** depends upon what you are trying to find out. For instance, if you want to discover how people intend to vote, then a quantitative method, like a social survey, may seem the most appropriate choice. On the other hand, if you are concerned with exploring people's wider perceptions or everyday behaviour, then qualitative methods may be favoured (Gilbert 1993).

However, other, less practical questions arise when you choose between 'qualitative' and 'quantitative' methods. The researcher has to bear in mind that these methods are often evaluated differently. This is shown in Table 1 which is drawn from the terms used by speakers at a conference on research methods. The table shows how imprecise, evaluative considerations come into play when researchers describe qualitative and quantitative methods. Depending on your point of view, Table 1 might suggest that quantitative research was superior because, for example, it is value-free. The implication here is that quantitative research simply objectively reports reality, whereas qualitative research is influenced by the researcher's political values. Conversely, other people might argue that such value freedom in social science is either undesirable or impossible.

The same sort of argument can arise about 'flexibility'. For some people, this flexibility encourages qualitative researchers to be innovative. For others, flexibility might be criticized as meaning lack of structure. Conversely, being 'fixed' gives such a structure to research but without flexibility.

However, this is by no means a balanced argument. Outside the social science community, there is little doubt that quantitative data rule the roost.

TABLE 1 Claimed features of qualitative and quantitative method

Qualitative	Quantitative	
Soft	Hard	
Flexible	Fixed	
Subjective	Objective	
Political	Value-free	
Case study	Survey	
Speculative	Hypothesis testing	
Grounded	Abstract	

Source: Halfpenny 1979: 799

Governments favour quantitative research because it mimics the research of its own agencies (Cicourel 1964: 36). They want quick answers based on 'reliable' variables. Similarly, many research funding agencies call qualitative researchers 'journalists or soft scientists. Their work is termed unscientific, or only exploratory, or entirely personal and full of bias' (Denzin and Lincoln 1994: 4).

For the general public, there is a mixture of respect for and suspicion of quantitative data ('you can say anything you like with figures'; 'lies, damn lies and statistics'). This is reflected by the media. On the one hand, public opinion polls are treated as newsworthy – particularly immediately before elections. On the other hand, unemployment and inflation statistics are often viewed with suspicion – particularly when they appear to contradict your own experience (statistics which show that inflation has fallen may not be credible if you see prices going up for the goods you buy!).

By the 1990s, in many Western countries, the assumed reliability of quantitative research was beginning to be under significant threat. In Britain, for instance, the ways in which inflation and unemployment were calculated during the Thatcher era were regularly changed. This suggested to some that such indices might be being 'fixed' in order to cast a favourable light upon these matters. Similarly, the failure of surveys of voting intention in the British general election of 1992 (almost comparable to the similar failure of US polling studies in the 1948 Truman–Dewey presidential race) made the public a little sceptical about such statistics – even though the companies involved insisted they were providing only statements of current voting intentions and not predictions of the actual result.

But such concerns may constitute only a 'blip' in the ongoing history of the dominance of quantitative research. Qualitative researchers still largely feel themselves to be second-class citizens whose work typically evokes suspicion, where the 'gold standard' is quantitative research.

STRUCTURE AND ARGUMENT

This chapter is organized in terms of the following five issues which are treated in consecutive sections, namely:

- 1 the nature of quantitative research;
- 2 the nature of qualitative research;
- 3 the critique of qualitative data;
- 4 the critique of quantitative data;
- 5 validity in qualitative research.

Readers should be aware that even textbooks cannot offer purely 'neutral' treatment of the topics they cover. Much will depend upon the material included (and excluded) and upon the particular position of the author: we all have our own 'axes to grind'. Underlying my presentation is the following context. I write as someone who has been associated with qualitative work. However, unlike some qualitative researchers, I have used quantitative measures where appropriate. This is because I share quantitative researchers' aim to do **science** (loosely defined as critical sifting of data, leading to cumulative generalizations which can always be later refuted).

In relation to this book, I argue that most dichotomies or polarities in social science are highly dangerous. At best, they are pedagogic devices for students to obtain a first grip on a difficult field: they help us to learn the jargon. At worst, they are excuses for not thinking, which assemble groups of sociologists into 'armed camps', unwilling to learn from one another.

However, so far we have been dealing with little more than empty terms, apparently related to whether or not researchers use statistics of some kind. In the next two sections, I address in rather more detail what social scientists mean by quantitative and qualitative research.

VARIETIES OF QUANTITATIVE RESEARCH

Bryman (1988) has discussed the five main methods of quantitative social science research and these are set out in Table 2.

To flesh out the bare bones of Table 2, I will use one example based on the quantitative analysis of official statistics. The example relates to data taken from the General Social Survey (GSS) carried out every year by the US National Opinion Research Center (NORC) and discussed by Procter (1993). Procter shows how you can use these data to calculate the relationship between two or more variables. Sociologists have long been interested in 'social mobility' – the movement between different statuses in

TABLE 2 Methods of quantitative research

Method	Features	Advantages
Social survey	Random samples Measured variables	Representative Tests hypotheses
Experiment	Experimental stimulus Control group not exposed to stimulus	Precise measurement
Official statistics	Analysis of previously collected data	Large data sets
Structured observation	Observations recorded on predetermined schedule	Reliability of observations
Content analysis	Predetermined categories used to count content of mass media products	Reliability of measures

Source: adapted from Bryman 1988: 11-12

TABLE 3 Respondent's occupation by father's occupation (%)

Son's	Father's occupation	
occupation	Non-manual	Manual
Non-manual	63.4	27.4
Manual	36.6	72.6

Source: adapted from Procter 1993: 246

society either within one lifetime or between generations. The GSS data can be used to calculate the latter, as Table 3 shows.

In Table 3, we are shown the relationship between father's and son's occupation. In this case, the father's occupation is the 'independent' variable because it is treated as the possible cause of the son's occupation (the 'dependent' variable). Table 3 appears to show a strong association (or 'correlation') between father's and son's occupations. For instance, of the group with non-manual fathers, 63.4% were themselves in non-manual jobs. However, among sons with fathers in manual occupations, only 27.4% had obtained non-manual work. Because the sample of over 1000 people was randomly recruited, we can be confident, within specifiable limits, that this correlation is unlikely to be obtained by chance.

However, quantitative researchers are reluctant to move from statements of correlation to causal statements. For instance, both father's and son's occupation may be associated with another variable (say inherited wealth) which lies behind the apparent link between occupations of father and son. Because of such an 'antecedent' variable, we cannot confidently state that father's occupation is a significant *cause* of son's occupation. Indeed, because this antecedent variable causes both of the others to vary together, the association between the occupation of fathers and sons is misleading or 'spurious'.

Along these lines Procter (1993: 248–9) makes the interesting observation that there appears to be a marked correlation between the price of rum in Barbados and the level of Methodist ministers' salaries, i.e. in any given year, both go up or down together. However, we should not jump to the conclusion that this means that rum distillers fund the Methodist Church. As Procter points out, both the price of rum and ministers' salaries may simply be responding to inflationary pressures. Hence the initial correlation is 'spurious'.

While looking at Tables 2 and 3, you may have been struck by the extent to which quantitative social research uses the same language that you may have been taught in say physics, chemistry or biology. As Bryman notes: 'Quantitative research is . . . a genre which uses a special language . . . [similar] to the ways in which scientists talk about how they investigate the natural order - variables, control, measurement, experiment' (1988: 12). Sometimes, this has led critics to claim that quantitative research ignores the differences between the natural and social world by failing to understand the 'meanings' that are brought to social life. This charge is often associated with critics who label quantitative research as 'positivistic' (e.g. Filmer et al. 1972). Unfortunately, 'positivism' is a very slippery and emotive term. Not only is it difficult to define but there are very few quantitative researchers who would accept it (see Marsh 1982: Ch. 3). Instead, most quantitative researchers would argue that they do not aim to produce a science of laws (like physics) but aim simply to produce a set of cumulative generalizations based on the critical sifting of data, i.e. a 'science' as defined above.

As I argue, at this level, many of the apparent differences between quantitative and qualitative research should disappear – although some qualitative researchers remain insistent that they want nothing to do with even such a limited version of science (see Phillips 1974). It follows that, when we compare the two kinds of research, the most we should be looking for are different emphases between 'schools' who themselves contain many internal differences.

VARIETIES OF QUALITATIVE RESEARCH

Qualitative researchers often assume that a dependence on purely quantitative methods may neglect the social and cultural construction of the 'variables' which quantitative research seeks to correlate. As Kirk and Miller (1986) argue, 'attitudes', for instance, do not simply attach to the inside of people's heads, and researching them depends on making a whole series of analytical assumptions. They conclude: 'The survey researcher who discusses is not wrong to do so. Rather, the researcher is wrong if he or she fails to acknowledge the theoretical basis on which it is meaningful

to make measurements of such entities and to do so with survey questions' (1986: 15).

According to its critics, much quantitative research leads to the use of a set of *ad hoc* procedures to define, count and analyse its variables (Blumer 1956; Cicourel 1964; Silverman 1975). On the basis of this critique, qualitative researchers have preferred to describe how, in everyday life, we actually go about defining, counting and analysing. The implication is that quantitative researchers unknowingly use the methods of everyday life, even as they claim scientific objectivity (Cicourel 1964; Garfinkel 1967).

Qualitative researchers go on to argue that we should not assume that techniques used in quantitative research are the *only* way of establishing the validity of findings from qualitative or field research. This means that a number of practices which originate from quantitative studies may be *inappropriate* to field research. These include the assumptions that social science research can only be valid if based on experimental data, official statistics or the random sampling of populations and that quantified data are the only valid or generalizable social facts.

Critics of quantitative research argue that these assumptions have a number of defects (Lipset et al. 1962, and see Cicourel 1964; Denzin 1970; Schwartz and Jacobs 1979; Hammersley and Atkinson 1983; Gubrium 1988). These critics note that experiments, official statistics and survey data may simply be inappropriate to some of the tasks of social science. For instance, they exclude the observation of behaviour in everyday situations. Hence, while quantification may *sometimes* be useful, it can conceal as well as reveal basic social processes.

Consider the problem of counting attitudes in surveys. Do we all have coherent attitudes on any topics which await the researcher's questions? And how do 'attitudes' relate to what we actually do – our practices? Or think of official statistics on cause of death compared with studies of how hospital staff (Sudnow 1968), pathologists and statistical clerks (Prior 1987) attend to deaths. Note that this is *not* to argue that such statistics may be biased. Instead, it is to suggest that there are areas of social reality which such statistics cannot measure. So the methods used by qualitative researchers exemplify a common belief that they can provide a 'deeper' understanding of social phenomena than would be obtained from purely quantitative data. Some of these methods are set out in Table 4.

The methods presented in Table 4 are often combined. For instance, many qualitative case studies combine observation with interviewing. Moreover, each method can be used in either qualitative or quantitative research studies. As Table 5 shows, the overall nature of the research methodology shapes how each method is used.

Table 5 shows that methods are techniques which take on a specific meaning according to the methodology in which they are used. To take just one example, although there are quantifiable, standardized observation schedules, observation is not generally seen as a very important method of

TABLE 4 Methods of qualitative research

Method	Features	Advantages
Observation	Extended periods of contact	Understanding of subcultures
Texts and documents	Attention to organization and use of such material	Theoretical understanding
Interviews	Relatively unstructured and open-ended	Understanding experience
Audio and video recording	Precise transcripts of naturally occurring interactions	Understanding how interaction is organized

TABLE 5 Different uses for four methods

	Methodology	
Method	Quantitative research	Qualitative research
Observation	Preliminary work, e.g. prior to framing questionnaire	Fundamental to understanding another culture
Textual analysis	Content analysis, i.e. counting in terms of researchers' categories	Understanding participants' categories
Interviews	Survey research: mainly fixed-choice questions to random samples	Open-ended questions to small samples
Transcripts	Used infrequently to check the accuracy of interview records	Used to understand how participants organize their talk

Source: Silverman 1993: 9

data collection in quantitative research. This is because it is difficult to conduct observational studies on large samples. Quantitative researchers also argue that observation is not a very 'reliable' data-collection method because different observers may record different observations. If used at all, observation is held to be only appropriate at a preliminary or 'exploratory' stage of research.

Conversely, observational studies have been fundamental to much qualitative research. Beginning with the pioneering case studies of non-Western societies by early anthropologists (Malinowski 1922; Radcliffe-Brown 1948) and continuing with the work by sociologists in Chicago prior to the Second World War (Thomas and Znaniecki 1927), the observational method has often been the chosen method to understand another culture.

The Chicago School tradition continued for two decades after the Second World War. In the 1950s, Becker (1953) conducted a classic observational study of drug use. He was particularly concerned with the relationship between marihuana smokers' own understandings and the interactions in which they were involved. He discovered that people's participation in groups of users taught them how to respond to the drug. Without such

learning, novices would not understand how to smoke marihuana or how to respond to its effects. Consequently, they would not get 'high' and so would not continue to use it.

Becker outlines a number of stages through which novices pass on their path to becoming regular smokers. These include:

- Direct teaching: e.g. being taught the difference between how to smoke marihuana and how to smoke tobacco; learning how to interpret its effects and their significance.
- 2 Learning how to enjoy the effects: through interaction with experienced users, the novice learns to find pleasure in sensations which, at first, may be quite frightening.
- Resocialization after difficulties: even experienced users can have an unpleasant or frightening experience through using a larger quantity or a different quality of marihuana. Fellow users can 'cool them out', explaining the reasons for this experience and reassuring them that they may safely continue to use the drug.
- 4 Learning connoisseurship: through developing a greater appreciation of the drug's effects, becoming able to distinguish between different kinds and qualities of the drug.

Becker stresses that it is only in the context of a social network, which provides a means of interpreting the effects of the drug, that people become stable marihuana users. It is unlikely that such a network could have been identified by, say, survey research methods concerned with the attitudes of marihuana users. However, this is not to rule out the value of quantitative social surveys to test how widespread are the features Becker describes (e.g. among different groups of users).

Just as quantitative researchers would resist the charge that they are all 'positivists' (Marsh 1982), there is no agreed doctrine underlying all qualitative social research. Instead, there are many 'isms' that appear to lie behind qualitative methods, for example interactionism, feminism, post-modernism and ethnomethodology (the nature of these diverse approaches lies beyond the scope of this chapter).

In spite of this diversity, qualitative researchers are seen by Hammersley (1992) to share a set of preferences which I set out below:

- 1 a preference for qualitative data understood simply as the analysis of words and images rather than numbers;
- 2 a preference for naturally occurring data observation rather than experiment, unstructured versus structured interviews;
- a preference for meanings rather than behaviour attempting 'to document the world from the point of view of the people studied' (1992: 165);
- 4 a rejection of natural science as a model;

5 a preference for inductive, hypothesis-generating research rather than hypothesis testing (cf. Glaser and Strauss 1967).

Unfortunately, as Hammersley himself recognizes, such a simple list is a huge over-generalization. For instance, to take just item 5 above, qualitative research would look a little odd, after a history of over 100 years, if it had no **hypotheses** to test (see Silverman 1993: 26)!

Nonetheless, if we take the list above as a reasonable approximation of the main features of qualitative research, we can start to see why it can be criticized. As already noted, in a world where numbers talk and people use the term 'hard' science, a failure to test hypotheses, coupled with a rejection of natural science methods, certainly leave qualitative researchers open to criticism.

Of course, many scientists themselves reject the wilder dreams of positivism, for instance the search for laws based on laboratory experiment as the 'gold standard' of good science. Nonetheless, we are still left with this troubling question: why should we *believe* what qualitative researchers tell us? How can they demonstrate that their descriptions are accurate and that their explanations hold water? It is to these questions that I now turn.

THE CRITIQUE OF QUALITATIVE DATA

As already noted, qualitative research is, by definition, stronger on long descriptive narratives than on statistical tables. The problem that arises here is how such a researcher goes about categorizing the events or activities described. This is sometimes known as the problem of *reliability*. As Hammersley puts it, reliability 'refers to the degree of consistency with which instances are assigned to the same category by different observers or by the same observer on different occasions' (1992: 67). The issue of consistency particularly arises because shortage of space means that many qualitative studies provide readers with little more than brief, persuasive, data extracts. As Bryman notes about the typical observational study: 'field notes or extended transcripts are rarely available; these would be very helpful in order to allow the reader to formulate his or her own hunches about the perspective of the people who have been studied' (1988: 77).

Moreover, even when people's activities are tape-recorded and transcribed, the reliability of the interpretation of transcripts may be gravely weakened by a failure to record apparently trivial, but often crucial, pauses and overlaps. For instance, a recent study of medical consultations was concerned to establish whether cancer patients had understood that their condition was fatal. When researchers first listened to tapes of relevant hospital consultations, they sometimes felt that there was no evidence that the patients had picked up their doctors' often guarded statements about

their prognosis. However, when the tapes were retranscribed, it was demonstrated that patients used very soft utterances (like 'yes' or, more usually 'mm') to mark that they were taking up this information. Equally, doctors would monitor patients' silences and rephrase their prognosis statements (see Clavarino et al. 1995).

Some social researchers argue that a concern for the reliability of observations arises only within the quantitative research tradition. Because what they call the 'positivist' position sees no difference between the natural and social worlds, reliable measures of social life are only needed by such 'positivists'. Conversely, it is argued, once we treat social reality as always in flux, then it makes no sense to worry about whether our research instruments measure accurately (e.g. Marshall and Rossman 1989).

Such a position would rule out any systematic research since it implies that we cannot assume any stable properties in the social world. However, if we concede the possible existence of such properties, why shouldn't other work replicate these properties? As Kirk and Miller argue:

Qualitative researchers can no longer afford to beg the issue of reliability. While the forte of field research will always lie in its capability to sort out the validity of propositions, its results will (reasonably) go ignored minus attention to reliability. For reliability to be calculated, it is incumbent on the scientific investigator to document his or her procedure. (1986: 72)

A second criticism of qualitative research relates to how sound are the explanations it offers. This is sometimes known as the problem of 'anecdotalism', revealed in the way in which research reports sometimes appeal to a few, telling 'examples' of some apparent phenomenon, without any attempt to analyse less clear (or even contradictory) data (Silverman 1989). This problem is expressed very clearly by Bryman:

There is a tendency towards an anecdotal approach to the use of data in relation to conclusions or explanations in qualitative research. Brief conversations, snippets from unstructured interviews . . . are used to provide evidence of a particular contention. There are grounds for disquiet in that the representativeness or generality of these fragments is rarely addressed. (1988: 77)

This complaint of 'anecdotalism' questions the *validity* of much qualitative research. 'Validity' is another word for truth: 'By validity, I mean truth: interpreted as the extent to which an account accurately represents the social phenomena to which it refers' (Hammersley 1990: 57). Sometimes one doubts the validity of an explanation because the researcher has clearly made no attempt to deal with contrary cases. Sometimes, the extended immersion in the 'field', so typical of qualitative research, leads to a certain preciousness about the validity of the researcher's own interpretation of 'their' tribe or organization. Or sometimes, the demands of journal editors

for shorter and shorter articles simply mean that the researcher is reluctantly led only to use 'telling' examples – something that can happen in much the same way in the natural sciences where, for instance, laboratory assistants have been shown to select 'perfect' slides for their professor's important lecture (see Lynch 1984).

Despite these common problems, doubts about the reliability and validity of qualitative research have led many quantitative researchers to downplay the value of the former. This means that in many, quantitatively oriented social science methodology textbooks, qualitative research is often treated as a relatively minor methodology. As such, it should only be contemplated at early or 'exploratory' stages of a study. Viewed from this perspective, qualitative research can be used to familiarize oneself with a setting before the serious sampling and counting begin.

This view is expressed in the extract below from an early text. Note how the authors refer to 'non-quantified data' – implying that quantitative data is the standard form:

The inspection of *nonquantified* data may be particularly helpful if it is done periodically throughout a study rather than postponed to the end of the statistical analysis. Frequently, a single incident noted by a perceptive observer contains the clue to an understanding of a phenomenon. If the social scientist becomes aware of this implication at a moment when he can still add to his material or exploit further the data he has already collected, he may considerably enrich the quality of his conclusions. (Selltiz et al. 1964: 435, my emphasis)

Despite these authors' 'friendly' view of the uses of 'non-quantified' data, they assume that 'statistical analysis' is the bedrock of research. A similar focus is to be found, a quarter of a century later, in another mainly quantitative text: 'Field research is essentially a matter of immersing oneself in a naturally occurring . . . set of events in order to gain firsthand knowledge of the situation' (Singleton et al. 1988: 11). Note the emphasis on 'immersion' and its implicit contrast with later, more focused research. This is underlined in the authors' subsequent identification of qualitative or field research with 'exploration' and 'description' (1988: 296) and their approval of the use of field research 'when one knows relatively little about the subject under investigation' (1988: 298–9). However, as we shall see below, this kind of 'damning by faint praise' has been more than balanced by criticisms of quantitative research offered by many qualitative researchers.

THE CRITIQUE OF QUANTITATIVE DATA

The critique of purely quantitative research has a long history beginning in the 1950s. C. Wright Mills (1959) criticizes the atheoretical character of

much quantitative research which he calls 'abstracted empiricism'. Blumer (1956) had noted how the attempt to establish correlations between variables depended upon a lack of attention to how these variables are defined by the people being studied. Finally, Cicourel (1964), influenced by Schutz (1964a) and Garfinkel (1967), draws attention to how the choice of a purely mathematical logic can neglect the common-sense reasoning used by both participants and researchers.

Let me try to concretize this critique by means of a single example. More than twenty years ago two American sociologists, Peter Blau and Richard Schoenherr conducted a study of several large organizations. The study is interesting for our present purposes because it is explicitly based on a critique of qualitative methods. In these authors' view, too much research in the 1960s had used qualitative methods to describe 'informal' aspects of organization – like how employees perceive their organization and act according to these perceptions rather than according to the organizational 'rulebook'. Blau and Schoenherr (1971) suggested that the time was ripe to switch the balance and to concentrate on 'formal' organization, like how jobs are officially defined and how many 'levels' exist in the organizational hierarchy. Such features can then be seen as 'variables' and statistical correlations can be produced which are both reliable and valid.

Let us see how such an apparently simple, quantitative logic worked out in practice. Blau and Schoenherr used as their data organizational wallcharts which show hierarchies and job functions. Unfortunately, from their point of view, as a revealing early chapter acknowledges, these wallcharts are often ambiguous and vary in structure from one organization to another. Consequently, it was necessary to discuss their meaning in interviews with 'key informants' in each organization. Using this information, Blau and Schoenherr constructed standardized measures of various aspects of organizational structure such as 'hierarchy' and 'job specificity'. The result of all this was a set of statistical correlations which convincingly show the relationship between the variables that Blau and Schoenherr constructed.

Unfortunately, given the indeterminancy of the data they are working with, the authors engaged in a series of sensible but undoubtedly ad hoc decisions in order to standardize the different forms in which people talk about their own organization. For instance, they decided to integrate into one category the two grades of 'clerk' that appear on one organization's wallchart of authority. This decision was guided by a statistical logic that demanded clearly defined, 'reliable' measures. However, the researchers' decision has an unknown relationship to how participants in the organization concerned actually relate to this wallchart and how or when they invoke it. Indeed, Blau and Schoenherr are prevented from examining such matters by their decision to stay at a purely 'structural' level and to avoid 'informal' behaviour. This means that their own interpretation of the meaning of the statistical correlations so obtained, while no doubt statistically rigorous, is equally ad hoc.

What we have here is a nice case of 'the cart leading the horse'. Blau and Schoenherr adopt a purely statistical logic precisely in order to replace common-sense understandings by scientific explanations. However, despite themselves, they inevitably appeal to common-sense knowledge both in defining their 'variables' and in interpreting their correlations. So the quantitative desire to establish 'operational' definitions at an early stage of social research can be an arbitrary process which deflects attention away from the everyday sense-making procedures of people in specific milieux. As a consequence, the 'hard' data on social structures which quantitative researchers claim to provide can turn out to be a mirage (see also Cicourel 1964).

This brief (non-random) example should allow you to understand the kind of criticisms that are often directed at purely quantitative research by more qualitative 'types'. Because space is short, let me try to summarize these criticisms by means of the following list:

- 1 Such research can amount to a 'quick fix', involving little or no contact with people or the 'field'.
- Statistical correlations are provided but they are based upon 'variables' that, in the context of naturally occurring interaction, are arbitrarily defined.
- 3 After the fact speculation about the meaning of correlations can involve the very common-sense processes of reasoning that such science tries to avoid (see Cicourel 1964: 14, 21).
- 4 The pursuit of 'measurable' phenomena can mean that unperceived values creep into research by simply taking on board highly problematic and unreliable concepts such as 'delinquency' or 'intelligence'.
- While it is important to test hypotheses, a purely statistical logic can make the development of hypotheses a trivial matter and fail to help in generating hypotheses from data (see Glaser and Strauss 1967).

It should be noted that the list above contains simply some complaints made about *some* quantitative research. Moreover, because quantitative researchers are rarely 'dopes', many treat such matters seriously and try to overcome them. So, for instance, epidemiologists, who study official statistics about disease, and criminologists are only too aware of the problematic character of what gets recorded as, say, 'cause of death' or a 'criminal offence' (see Hindess 1973). Equally, good quantitative researchers are only too aware of the problems involved in interpreting statistical correlations in relation to what the variables involved 'mean' to the participants (see Marsh 1982: Ch. 5).

In the light of this qualification, I conclude this section by observing that an insistence that any research worth its salt should follow a purely quantitative logic would simply rule out the study of many interesting phenomena relating to what people actually do in their day-to-day lives,

whether in homes, offices or other public and private places. But, as the next section shows, a balanced view should accept the strengths, as well as the limitations, of quantitative research.

VALIDITY IN QUALITATIVE RESEARCH

As earlier sections have made clear, quantitative measures offer no simple solution to the question of validity. As Fielding and Fielding point out, some interpretation takes place even when using apparently 'hard' quantitative measures:

ultimately all methods of data collection are analysed 'qualitatively', in so far as the act of analysis is an interpretation, and therefore of necessity a selective rendering. Whether the data collected are quantifiable or qualitative, the issue of the *warrant* for their inferences must be confronted. (1986: 12, my emphasis)

So qualitative researchers should not be overly defensive. Quantitative researchers have no 'golden key' to validity. Nonetheless, qualitative researchers remain troubled by two problems:

- 1 How can they claim that their findings are 'representative', given that they are unlikely to use random samples (the problem of 'representativeness')?
- 2 How can they base their findings on more than one or two favourable 'examples' (the problem of 'hypothesis testing')?

I will begin with the problem of *representativeness*. Qualitative studies often draw their data from only one or two settings (e.g. a school or a prison). It is unlikely that these settings will have been selected on a random basis. For instance, in observational studies, a setting may be chosen because it allows access. This gives rise to a problem familiar to users of quantitative methods: 'How do we know . . . how representative case study findings are of all members of the population from which the case was selected?' (Bryman 1988: 88).

The problem of representativeness is a perennial worry of case study researchers. Let me outline two ways that we can address it. The first is by inferring from one case to a larger population. Hammersley (1992) suggests three methods through which we can attempt to generalize from the analysis of a single case:

obtaining information about relevant aspects of the population of cases and comparing our case to them;

- 2 using survey research on a random sample of cases;
- 3 co-ordinating several ethnographic studies.

Through such comparisons with a larger sample, we may be able to establish some sense of the representativeness of our single case.

Even if the qualitative researcher is only working with a single case, (s)he should be addressing the problem of sampling by means of constant comparisons. Miles and Huberman illustrate this point very well, using the example of qualitative research on police work:

sampling means . . . just taking a smaller chunk of a larger universe. If I focus on one precinct station and one kind of police officer making one kind of booking, I can make few legitimate claims about other precincts, or about other officers and bookings within the precinct I have studied. If, on the other hand, I hang around one precinct long enough and track a variety of arrests and bookings, I will probably have a large enough sample of settings, actors, and events to make confident claims not only about these variables but also about how laws are enforced and interpreted within the precinct. (1984: 38)

The second way to address the problem of representativeness is to make generalizations in terms of theories. It is important to recognize that generalizing from cases to populations does not follow a purely statistical logic in qualitative research. As an example, Bryman uses Glaser and Strauss's discussion of whether (and, if so, how) hospital patients become aware of their impending death:

The issue of whether the particular hospital studied is 'typical' is not the critical issue; what is important is whether the experiences of dying patients are typical of the broad class of phenomena . . . to which the theory refers. Subsequent research would then focus on the validity of the proposition in other milieux (e.g. doctors' surgeries). (1988: 91)

Bryman thus argues that:

the issue should be couched in terms of the generalizability of cases to *theoretical* propositions rather than to *populations* or universes. (1988: 90, my emphasis)

As our understanding of social processes improves, we are increasingly able to choose settings and cases on theoretical grounds – for instance, because the case offers a crucial test of a theory. This leads directly to our second issue: how we can test hypotheses in qualitative research.

A solution to the problem of *hypothesis testing* is simply for qualitative researchers to seek to refute their initial assumptions about their data in order to achieve objectivity. As Kirk and Miller argue: "The assumptions underlying the search for objectivity are simple. There is a world of

empirical reality out there. The way we perceive and understand that world is largely up to us, but the world does not tolerate all understandings of it equally' (1986: 11).

Kirk and Miller remind us of the need for 'objectivity' in qualitative research. One way of being critical is, as Popper (1959) has suggested, to seek to refute assumed relations between phenomena. This means overcoming the temptation to jump to easy conclusions just because there is some evidence that seems to lead in an interesting direction. Instead, we must subject this evidence to every possible test. Then, only if we cannot refute the existence of a certain relationship are we in a position to speak about 'objective' knowledge. Even then, however, our knowledge is always provisional, subject to a subsequent study which may come up with disconfirming evidence. Popper puts it this way:

What characterizes the empirical method is its manner of exposing to falsification, in every conceivable way, the system to be tested. Its aim is not to save the lives of untenable systems but, on the contrary, to select the one which is by comparison the fittest, by exposing them all to the fiercest struggle for survival. (1959: 42)

As we have seen, quantitative researchers attempt to satisfy Popper's demand for attempts at 'falsification' by carefully excluding 'spurious' correlations. How can qualitative researchers satisfy Popper's criterion?

One solution is to employ the constant comparative method. This means that the qualitative researcher should always attempt to find another case through which to test out a provisional hypothesis. For instance, when I was studying what happened to Down's syndrome children in a heart hospital, I tested out my findings with similar tape-recordings of consultations involving children without that congenital abnormality (Silverman 1981). Even when there is no comparative group available to test hypotheses, qualitative researchers can isolate deviant cases in a single data set and use them to refine their initial hypotheses (Silverman 1993: Ch. 8).

Equally, there is no reason why qualitative researchers should not, where appropriate, use quantitative measures. Simple counting techniques can offer a means to survey the whole corpus of data ordinarily lost in intensive, qualitative research. Instead of taking the researcher's word for it, the reader has a chance to gain a sense of the flavour of the data as a whole. In turn, researchers are able to test and to revise their generalizations, removing nagging doubts about the accuracy of their impressions about the data (Strong 1979).

In a study of cancer clinics (Silverman 1984), I used some simple quantitative measures in order to respond to some of these problems. The aim was to demonstrate that the qualitative analysis was reasonably representative of the data as a whole. Occasionally, however, the figures revealed that the reality was not in line with my overall impressions. Consequently,

the analysis was tightened and my characterizations of clinic behaviour were specified more carefully.

CONCLUSION

The use of quantitative measures in qualitative research shows that the whole 'qualitative/quantitative' dichotomy is open to question. Ultimately, objectivity should be the common aim of all social science (see Kirk and Miller 1986: 10–11). As Hammersley argues: 'the process of inquiry in science is the same whatever method is used, and the retreat into paradigms effectively stultifies debate and hampers progress' (1992: 182). This means that, if we wish to establish criteria for distinguishing qualitative research, we will need to understand the similar issues faced by any systematic attempt at description and explanation, whether quantitative or qualitative.

In principle, there is no reason to prefer any form of data. I conclude, therefore, with a statement which shows the absurdity of pushing too far the qualitative/quantitative distinction:

We are not faced, then, with a stark choice between words and numbers, or even between precise and imprecise data; but rather with a range from more to less precise data. Furthermore, our decisions about what level of precision is appropriate in relation to any particular claim should depend on the nature of what we are trying to describe, on the likely accuracy of our descriptions, on our purposes, and on the resources available to us; not on ideological commitment to one methodological paradigm or another. (1992: 163)

KEY CONCEPTS

QUALITATIVE A methodology which privileges material drawn from non-quantitative sources. Thus any work in the social sciences that collects and analyses its material in the form of conversations; written or recorded responses to questions; sections of books, reports or newspapers; attitude tests; focus group discussions and so on. A methodology that focuses on the texture and the value qualities of its data.

QUANTITATIVE A methodology in the social sciences that uses numerical data to reach its findings. Thus any statistical techniques for the collection and analysis of material; any transformation of human behaviour into the form of

numbers. Statements in the form of '85% of people say that ...,' are quantitative, they tend to be of higher status than qualitative statements, and they tend to be regarded as fact.

Method This is a specific research technique like: ethnography; participant observation; surveys; questionnaires; observation; interviews, etc.

Science Science describes the dominant form of understanding in western society throughout modernity. Science has provided most of the things that we regard as good and essential to our society, like engineering and medicine. Science is also a way of talking about a critical sifting of data, leading to cumulative generalizations which can always be later refuted.

Methodology This is a general approach to studying research topics; it usually involves both a perspective and a chosen style of analysis, like quantification for example.

Hypothesis An hypothesis is a testable proposition. If I say 'all swans are white' this is an hypothesis and we can go out and test it by looking at swans, but particularly by looking for black swans. If we find none then the hypothesis becomes an empirical generalization.

NOTE

I am most grateful for the comments of Clive Seale on an earlier draft of this chapter.

Introduction

Chris Jenks

This book contains an invitation and a welcome, not just to an academic subject but also to a way of thinking about the world. Sociology, which is the discipline that has brought us all together, has a relatively short history, yet it has had a significant and growing impact on the culture, thought styles and public policy of contemporary society. We need to ask how this could have occurred, and what forms this influence might have taken.

While teaching sociology at a variety of levels for over twenty-five years I, like so many of the contributors to this volume, have noticed that the character of everyday life has changed quite dramatically. During the past quarter of a century social life has transformed in many ways, and continues to change increasingly quickly so that less and less about social life remains stable and predictable. During this same turbulent historical period it has also been noticeable that a popular interest in sociology has emerged, but particularly the interest of a growing number of undergraduate students. This interest continues to expand in both volume and intensity and it is reflected in your personal attraction to our shared subject.

We might suggest that the recurring alterations in the structure of our society over the recent past, and our shared desire for the relative sense of security that society once provided, have brought forth a collective response from people to try to understand more about the relationships that hold between them. Thus as we all feel potentially less structured in our social lives we seek to arrest this experience of lack of control through our own knowledge.

At a time when governments internationally are calling out for a higher level of recruitment to mathematics, engineering, physics and chemistry, and industry and commerce are demanding increased skills in technology and natural science, students are choosing in vast numbers to study the humanities, but more especially the social sciences.

Clearly we now appear more preoccupied than ever before with questions concerning our personal and social identities, and our collective responses to social pressures and constraints. The boundaries of our interest and inquiry are expanding and we are more amenable to receiving information about our social conduct and adapting our behaviour in response to it. So, if we take a few examples: the changing attitudes of men towards women; the interactions between different cultural communities; the way that children are taught and assessed in schools; the relations between the forces of law and order and the public; the manner in which doctors consult with their patients; and the strategies and programmes that politicians employ; these are all, at some level, coming to be informed by what we might call a 'sociological perspective'.

In the same way that it is possible to point to different areas of everyday life and suggest that sociology has contributed to their modern form, either directly or indirectly, we can also say with confidence that there is no area of collective life and no aspect of social action that sociologists themselves have felt unable or unwilling to explore. Everyone anticipates that sociologists will want to speak about issues to do with social class, which has always appeared as one of our most significant explanatory concepts. However sociologists are equally concerned to study football hooliganism, HIV infection, humour, dying, racial conflict, childrearing practices, popular culture etc.: the list is inexhaustible. All of the social world is our stage but, of course, we tend to be drawn to study some topics more than others and that is usually because some topics are of more pressing concern and call forth a greater moral commitment at particular historical moments. It would be hard not to be concerned with HIV infection in the modern world.

When sociology was new – and a variety of histories and commentaries will tell you that it found its origins towards the end of the nineteenth century – its concerns were quite different to those that preoccupy us today. Sociology was, at the outset, a particularly European way of thinking even though a large part of its tradition developed in parallel in the USA. Throughout the nineteenth century all of the major European countries were still experiencing the disruptive after-effects of the French Revolution of 1789. The inflexible politics of an old order of government and privilege that had for so long kept societies stable and unchanged was now being questioned. The Revolution had violently challenged the long-held assumptions concerning power, prestige, hierarchy and status and had produced an instability that required an adjustment to change. These social adjustments were now all guided by a philosophical concern with the principles

of equality, freedom and altruism deriving from the new French Republic. At the same time technology was developing and the way that people produced things for use and consumption in society had changed. Farming and small-scale domestic manufacture were giving way to industrialization and mass production. People were moving from the countryside into towns, urban populations were becoming larger and denser, and, most significant of all, the structure of relationships between people was altering dramatically and irrevocably through new divisions of labour. Overriding and directing all of these changes a new form of political economy had evolved which, through a variety of mutations, was destined to rule our lives and contribute to major world threatening antagonisms up until the present day. This form is what we have come to call 'capitalism'. It is, in part, a mode of production but it is also a description of the way in which, at a more general level, all of social life becomes transformed into a market and thus all things, people and actions take on a quantitative value. This transformation through capitalism begins, in turn, to shape the way that people relate to one another and, subsequently, the ways in which their personal identities are formed.

All through our discipline's formative period sociologists selected their problems from the agenda of their day and treated them not simply as practical issues but also as moral issues, that is, as issues of value. So when Marx considered social stratification, Weber sought to explain bureaucracy and Durkheim investigated the social causes of suicide, they all did so with a larger view of what a 'good society' might be in mind, and they were all writing about problems that derive from capitalism. In the context of our society at the end of the twentieth century it is less and less easy to think about values that are shared or beliefs that are common. Sociology has adapted to this problem, in part, by beginning to find ways of addressing the personal experience of a whole range of different groups within the world of today. Now, even though we may not have abandoned our visions of the 'good society', as sociologists living in the present we tend to be concerned with more specific contexts. So, for example, we might wish: to express the politics and identities of people of different genders and different sexual orientations; to articulate the experience of people from a variety of ethnic groups and belief systems; to realize what it is to be a child rather than an adult; or to demonstrate the social constraints pressing on a person with 'special needs'. These examples, and there are many more, might indicate how our work as sociologists continues to have a general, and critical, appeal and application even in a modern society where it is increasingly difficult to spot the values or beliefs that people hold in common.

In this book we have chosen, quite specifically, to look at some pairs of ideas that we think will help you to understand sociology as a subject with a tradition but, more importantly, will help you relate to sociology as a relevant way of understanding your world today and your place within it.

HOW TO USE THIS BOOK

As a student of sociology, or indeed almost any subject at university, it is possible to fall into the trap of thinking that what you are studying always belongs to someone else. By this I mean that you arrive at a strange institution apparently full of learned and expert people who 'know' about sets of very complex ideas which they will 'tell' you about for the next three years. These elders (that is, the professors and lecturers) produce your knowledge through their research. Your textbooks, written by learned people, are full of ideas that you must collect and store for three years. These authors, researchers and teachers, ancient and modern, 'own' the subject. You, on the other hand, have little or no part in the subject, you assume that your role is to listen and collect and maybe copy these learned people: this makes your learning passive and your practice merely imitation. This kind of learning is something we pick up at home, through school and through the mass media: it is a difficult habit to break.

Adopting and retaining this passivity is, of course, no way to study and it is certainly no way to fill three years of your adult life while you are at university. You must engage with your subject, use your subject, address your own problems through the subject and, as I have said before, treat it as a way of seeing the world - your way of seeing the world. This book attempts to encourage your participation.

None of the authors writing here believe sociology is a museum that you should spend time simply walking around, looking at the dusty exhibits. We are all inviting you to join in and make your interests and perspectives relevant through our shared, and chosen, subject - sociology. Sociology is a living subject, a living practice and a living way of coming to know about the world. You as newcomers and enthusiasts are vital to that life, and your vitality feeds our shared tradition. Our chosen method for inviting you to engage with us in looking at modern issues in the modern world, which we all inhabit in our different ways, is by investigating pairs of ideas that we see as fundamental to sociological understanding. These we have called core dichotomies. Dichotomies are ideas that are divided into two parts and the parts usually stand in opposition to one another.

Let us take an example of dichotomous or binary thinking. If I decide to vote for a particular party at an election, I may do so because:

- (a) I freely choose to or I feel constrained to do so;
- (b) the party represents my interests or my parents always voted for them;
- (c) I have decided according to the current state of the economy or I have been influenced by the media and propaganda;
- (d) the party closely identifies with my own moral position or people of my social class always vote for this party,

and so on. These alternative pairs of reasons are dichotomies.

Now the first reasons in these pairs are explanations in terms of freedom, choice, individuality and free will; the second reasons are explanations in terms of constraint, determinism, social pressure and public opinion. As sociologists we might examine this problem through the core dichotomy of agency (first reasons) and structure (second reasons). Does somebody act according to the influence of either agency or structure? The answer will usually be somewhere in the middle. However, employing the dichotomy allows us to put exaggerated forms of the arguments on each side, or each end if we see it as a continuum, and the balance between the extremes often helps us to achieve a clearer answer in the middle ground. Of course the dichotomy of agency and structure, which is the first one discussed in this book, is not just about voting behaviour: it is about all social behaviour, from the most serious to the most trivial, from why I might commit a crime to why I might take up smoking or even wear a yellow tie! Remember, nothing escapes the interest of the sociologist.

So we reason in the form of dichotomies here because they enable us to establish arguments from two strong and opposite positions and because they will enable you also to engage with debates from both sides and to see the strengths of the arguments on both sides. In this way, we anticipate, you will not simply inhabit the debates or arguments that belong to other people; rather you will be in a position to make your own mind up or to reform the problem.

There are other good reasons for approaching sociology through core dichotomies. The first is to do with location, that is, your location and the character of your society. For years sociology spoke about the world from the perspective of the Western European and this caused it to be guilty of what anthropologists refer to as 'ethnocentrism'. Ethnocentrism means that a person has a set of ideas containing an attitude that his or her own race, nation or culture is superior to all others, and this can be achieved not only explicitly by judging other societies inferior but also implicitly by simply ignoring them and their differences. In a more modern context many feel that sociology has been further guilty of speaking about the world from the perspective of the Western European white male. We do certainly have to be increasingly conscious of the perspective we adopt and the partiality that our perspective reveals.

By analysing social events in terms of abstract dichotomies like agency and structure we are less likely to ignore the views and arguments of others not like ourselves. Indeed, by using dichotomous thinking we are more likely to provide a space from within which others' differences can emerge. It is also the case that your particular perspective as a reader of this book, perhaps as a woman, perhaps as a member of an ethnic minority, perhaps as a member of a working-class family, perhaps as a resident of New York, Melbourne or Manchester, will not be glossed over when we discuss the world through dichotomies in the way that it might be if I gave you my explanation, however clear, as a white, middle-class, British male, of, for

example, the difficulties facing the modern family in London. What you would learn about is another person's experiences, perspective and social location. Dichotomies then have a relevance to people's social experience across different social locations and can therefore include us all, without any exclusion.

The second reason for approaching sociological issues through dichotomies is to do with history and time. We might rightly suppose that although sociologists from the early twentieth century would know nothing about the atom bomb, global warming or the influence of television on children, they would certainly be concerned with a different set of issues about class, solidarity, industrialization, and the influence of religion - all things that are less relevant to us now. However, just as we could place each one of our concerns within a dichotomous argument based on continuity and change or on fact and value, for example, so also could they. The dichotomies then are relatively timeless and will address problems stretching back to the origins of our discipline, but will also take us forward into a period when you, the readers, will be setting the problems for our discipline. In this way, to look at sociological issues through core dichotomies rather than through fashionable theories or perspectives alone will ensure that your thoughts and ideas will be timely, but simultaneously never out of date.

There is, however, one major drawback to arguing in terms of dichotomies which applies in specific cases. If we are looking at pairs of abstractions like the local and the global, or absolute and relative, then all of the advantages listed above accrue and we can extend our thinking about a topic. If, however, we are looking at substantive differences between people and placing them in oppositional pairs then we can create antagonisms and conflicts that may be unintentional, but are certainly divisive and potentially painful. Think, for example, of the pairings between: short and tall; able and disabled; gay and straight; or even bright and stupid. As sociologists we should recognize that these pairings, and many others, are constructed within our society and should therefore be critically investigated by us rather than reinforced in our discussions. To this end although we, in this book, recognize the absolute centrality of questions concerning 'gender' and also 'ethnicity' to understanding your own social identity and the social relationships that exist between people within the modern world, we do not set up our arguments as between men and women, or black people and white people. Both of these formulations you will recognize as having provided lasting social battlegrounds in terms of civil rights, the division of labour, differential life chances and notions of freedom and oppression. Rather we cover these two important topics through the less confrontational pairings of sex and gender, and race and ethnicity, which enables us to understand the different experiences of being gendered and belonging to a particular cultural group without setting these differences against one another. We trust that you will, in turn, be informed by these two debates but also recognize them to be substantive reworkings of the dichotomy between nature and culture.

Begin now, and remember that this book will provide you with a basis for the discussion of any of the interesting topics that appear in the other courses that you are taking, from methodology, through social structure, to all of the exciting and exploratory choices that you can make through your optional courses. It should also have an influence, at a later stage, if you are required to make a report or write a dissertation on a topic of your own. Here you will need to have developed a way of producing good arguments. Most specifically, on a day-to-day basis at university, when you are required to put a point in a seminar or a class, or just to express your point of view in a discussion with a friend, you will find that these basic dichotomies and the form of reasoning that they contain will predispose you for an active and fulfilling engagement in academic life.

Each of the authors contributing to this book has gone some way to helping you into their chosen dichotomy. We have all attempted to write in a manner that is user-friendly but not patronizing. You will find introductions to concepts and some concepts explained at length, but you will also find yourself, at times, involved in quite high-level and demanding theoretical questioning. Please do persevere. Remember, you are the 'active' learner and we are attempting to bring you into a way of seeing the world that is critical, valuable and rewarding – but never just simple. In addition, the authors have provided you with a list of **Key Concepts** for each chapter that you can look up and refer across your different courses. There is also a combined reference list for all the books and articles cited.

Best wishes.