

# ONE

## Introduction to social research design – or what are you talking about?

### Introduction

This chapter introduces the key concepts that students need to know in order to be able to begin to think about and discuss social research. First, we will work through some basic terms such as the difference between primary and secondary data, before considering some more philosophical terms. Next, some practical examples of how these concepts can be applied will be given to show that research methods vary considerably in terms of the way they use data, and on their philosophical bases. Finally, the chapter will argue that what is important is that students and researchers understand what I'll call a 'logic of appropriateness' in their work – that no methods are intrinsically better than others, but that the choice of methods is important because some methods suit particular kinds of problems better than others. Being aware of the relationship between method and the problem at hand is therefore extremely important in conducting social research – the central theme of this book.

### Defining terms

Nobody likes jargon. It's depressing to sit in lectures or meetings and to simply not understand what anyone is talking about because they seem intent in stringing together sentences that are based on obscure terms and acronyms that seem designed to obscure rather than improve understanding. Any author therefore has a duty to try and minimise their use of terms to those that are necessary in order for readers to be able to deal with the literature in a subject area, or those which help readers to get some additional analytical purchase on the subject.

There are a bewildering range of terms in social research texts, but for the moment we have to deal with eight in order to get started. As I hope to make clear, I'm not sure that some of these terms always help in understanding social research, but they are necessary if readers are going to begin to engage with the ideas underpinning social research as well as the process and practice of social research itself.

### Primary and secondary research and data

A first question you are likely to be asked when putting together a research proposal or dissertation is, 'What kind of project do you want to do?' One of the key dimensions of this is whether you aim to collect your own data, or you want to use existing data or library resources, often supplemented by theoretical work, to construct your project instead.

These different kinds of social research projects are named after the data they collect; primary and secondary data. Primary research is usually associated with researchers who collect data in some way for themselves. So, if a researcher goes and interviews research participants, or collects data for themselves using a survey, then they will be conducting primary research. Equally, the data that they will collect during this process will be primary data.

If, however, researchers are conducting a review of others' work, or are looking at sources that were collected by someone else, then they are usually regarded as conducting secondary research. The data that they are using (the research papers they are reviewing, or the data that others collected) is secondary data.

These distinctions between primary and secondary research and data are a reasonable starting point, and they are widely used in the literature on research methods (as well as in university departments, which have few problems in making the division between primary and secondary research projects), but the boundary between them isn't as clear and distinct as this simple presentation suggests. Historians, for example, would regard the sources they find in archives as primary data, but those sources were initially collected by others for entirely different reasons than the historian will be putting them to, so it is certainly possible to argue they are really closer to secondary sources.

The distinction between primary and secondary research and data is therefore good as a starting point, and as a way of labelling research in an outline way, but isn't something that needs to detain us for too long. There are other terms which are more important, both in respect of their analytical value and their significance within the research methods literature, so we should move on to them.

### Quantitative, qualitative and mixed-methods research and data

Another common split is between quantitative and qualitative research and data. Quantitative research is primarily concerned with techniques that analyse numbers.

If we are calculating descriptive statistics (calculating averages, probabilities or exploring numerical relationships), then we are doing quantitative research. Quantitative data is the numbers we use as data, or the results of the numeric processes that the research has been through.

Qualitative data is non-numeric data. It is made up of words or images or anything that isn't presently in numeric form. Of course, it's possible to convert just about any non-numeric phenomenon to a number – we can code letters as numbers, count the occurrence of words, express feelings on a scale between 1 (very bad) to 5 (very good). However, qualitative data is often collected because it can capture more naturalistically what research participants wish to express because they are able to use their own words rather than the categories or tick-boxes that researchers have designed.

Quantitative methods carry with them a range of often well-established techniques that can be checked for their statistical robustness, and where the consumers of research want a specific answer, they can be extremely powerful. However, qualitative researchers often argue that social research often can't provide such specific answers, and that instead social knowledge is often contingent and contextual.

Mixed-methods research, as the name implies, suggests a strategy whereby you use both quantitative and qualitative research. It can be a way of overcoming the problems associated with each of the approaches, and is very fashionable at present for exactly this reason. However, it can also create a terrible mess. This is because different methods often lead to the production of different kinds of knowledge, and having more data of different types doesn't always result in better research. It is therefore important that we begin to think about some of the philosophical issues underlying research methods.

### Induction and deduction

Induction and deduction are used in at least two ways in social research methods texts. Inductive research is that which tries to work from data (usually primary data) to build theory – it is a 'bottom up' approach to generating theoretical insight. Deductive research is that which, on the other hand, tests theory through the use of (usually) quantitative data. Inductive research tries to start without clearly define hypotheses or propositions that the researcher is trying to examine, whereas, for deductive research, because it is based on testing existing theories, will tend to include these elements.

Inductive research tends to be closely associated with a qualitative research strategy. This is because qualitative researchers tend to place a premium on being close to their data and participants by collecting it themselves, and by trying to approach their participants in such a way that any theory they generate is built up from data observation rather than being imposed upon their data from pre-existing theory.

In contrast, deductive research tends to be quantitative, as it involves testing theories and hypotheses using procedures that are sufficiently robust in their own

terms to allow this to happen. Quantitative methods tend to have tightly defined procedures that allow testing to occur in way that would be difficult with qualitative research.

To make things more difficult, it is possible to do deductive qualitative research, and inductive quantitative research, but the majority of work falls within the rule of thumb above – quantitative research tends to be deductive, and qualitative research tends to be inductive. Economists, for example, often analyse government-collected statistics (secondary data) using deductive, quantitative methods. Sociologists on the other hand, often conduct inductive research, collecting primary data through the use of qualitative methods such as observation or interviews.

To understand the underlying differences between these approaches, we need a few more terms.

### Epistemology, methodology and ontology

The next three terms are perhaps more intrinsically scary. These are complicated-sounding terms that are often more associated with philosophical discussion than with research, and many researchers have successfully gone about their work without having to confront them. Why do we need to know about them?

My argument why these terms are important is this; it is possible to do good research without understanding its philosophical bases, or exactly how research works, but that you significantly increase your chances of doing good research if you understand something about the philosophical assumptions implicit in the process of choosing methods to deal with the particular research problem you are trying to address. Knowing something about the philosophy of social research means that you are more likely to make informed choices about method, and that can only be a good thing. Being aware of some of the key debates around the philosophy of social research will not mean that you always do good research, but will increase your chances of making good methods choices.

Having outlined my position, let's get on with understanding these terms. I'm going to deal with them one at a time before putting them all together to discuss how they fit together in particular ways of conducting social research.

### Epistemology

Epistemology is the theory of knowledge. It is concerned with what knowledge is, and what counts as good knowledge.

So what is good knowledge? At the risk of sounding like I'm equivocating from the beginning, well ... it depends. Epistemology examines what counts as truth (if, indeed anything at all falls into that category), what we can say we know and how we know what we know.

Different methods, and different research strategies, favour different kinds of knowledge. A great deal of scientific discourse has a tendency to present experimental

methods as being the most important and significant, and these methods favour knowledge of a particular kind. Considering just about everyone who is reading this book will have conducted an experiment at some point, think for a moment what kind of knowledge experiments generate. We'll deal more with experiments later in the chapter, but for the moment note that experiments are primarily a tool for testing hypothesis and for generating knowledge this is either highly quantitative (where, for example, you are conducting laboratory experiments in psychology) or propositional (where you are trying to find out what happens as a result of introducing a particular intervention or taking a particular action).

Now contrast that with the kind of knowledge that would come from you conducting a series of interviews instead. It is possible to analyse interviews using quantitative techniques, but they are more likely to produce knowledge that is qualitative instead. The knowledge produced from conducting a series of interviews is likely to be far more contingent, and while it may produce propositions, it is more likely to demonstrate the differences in perspective and understanding of the participants than what happened as a result of a particular intervention or change.

As experiments produce knowledge that is more definite, and which is based more on the methods of what we call the natural sciences, does that mean that they are better than interviews? Well, some researchers would certainly argue that. However, my argument is that experiments might well work in some circumstances, but not in others, and that we need to be aware of their limits and problems before we go ahead with them. It may well be that interviews are a better option in dealing with some research questions and in some circumstances. The trick is knowing when. I'll return again to experiments in a moment, but before then we need to deal with two more terms.

### Methodology (and method)

Research methods texts often begin by discussing the difference between methodology and method. Because both words tend to get used a lot in research, it's important to say what each means, as well as their significance more generally. Methods are the tools and techniques that are used in social research practice. Interviews are a social research method, as is the calculation of descriptive statistics.

Methodology, on the other hand, studies methods to work out what we can usefully say about them, and explores their philosophy, application and usage. So when we are examining methods, comparing them or thinking about the kinds of knowledge that they produce, then we are doing methodology. So technically this book is about methodology, but I'm going to be writing about methods most of the time, so will tend to stick to that term rather than its (arguably more pompous) close relative.

To go back to the argument above, and relate it to the section on epistemology, there seems to me to be a strong case for thinking about how particular methods privilege particular kinds of knowledge. The choice of method has to be related

to the particular problem before a researcher and the research question that they need to answer, and the choice of research method carries with it implications for the kind of knowledge that the research is able to produce later on. If you want to use statistical methods, then you are less likely to be conducting interviews and more likely to be doing surveys. At this level this sounds like a statement of the obvious, but as the book progresses I hope to demonstrate that method choices are often more subtle than this, but still carry considerable implications for the knowledge that they subsequently produce.

### Ontology

Ontology is the theory of being. That's not a particularly helpful definition, but it again is a starting point. When you are considering questions of ontology you are thinking about issues such as whether the world exists independently of your perceptions of it. As it turns out, this kind of question, I would argue, is extremely important for social research.

Let's revisit for a moment the example of the experimental method we've already discussed above, and which will be discussed at greater length below. Experiments implicitly presume that there is a world independent of our understanding of, and that the goal of social research is to find out about it. This is a common-sense approach to doing research, which as what we can call a 'realist' assumption in that it assumes that the world has a 'real' existence independent of human perceptions of it.

Interviews, however, do not always have to presume a world independent of our perceptions of them. Interviews can be utilised within a range of social research traditions, being used in lots of different ways. In social policy, interviews are often used to find out more about participants in a particular situation, interviewing nurses to find out about healthcare, or unemployed men in social housing to find out about a particular aspect of social exclusion. They will often tend to assume, however, that by talking to people in these situations that research can find out what is 'really' going on (the link to the 'realist' position may therefore even be present in the language of the research programme).

However, other disciplines, for example within Human Geography, might use interviews to find out instead the intersubjective experience of research participants. The important thing in such a research programme would be to find out about how participants construct their reality – an almost mirror-image situation to the social policy programme, as the emphasis might be on the narratives or stories participants tell one another regardless without any regard as to whether they give a consistent account of the worlds in which they live. In that approach, the existence of an external world is either the product of the participants of the research, or irrelevant to it. In the first instance, the argument would be that the world does not exist in any meaningful way outside of our subject experiences of it – we cannot experience the world except through our own senses. Therefore the world is constructed, rather than coming to us as a given. This means that it is

possible to move to the second position, that whether the external world exists or not is actually irrelevant – it is our conceptions of it that matter.

As such, particular methods, and the way that they are used in particular research programmes, carry with them a view of the world that has consequences for what we can claim from the research. Both of the perspectives discussed in this section will be expanded on and discussed in far greater depth in this book. The important thing is that, when you are conducting an interview, you need to be able to link it to your research question, and to conduct it in an appropriate way. If you are trying to find out about what is going on in a particular situation, you may find you have presuppositions in your questions or your analysis about the presence or otherwise of an external world that affect what you are subsequently able to say in your results or conclusions.

## Some general points about research questions

An obvious starting point for any programme in research is the question it is trying to answer. However, in practice, this is something that students and researchers often struggle with. In the worse case, this can end up with researchers trying to find a question that fits with the research that they believe they've done, attempting to retro-fit it as if it was what they had in mind all along.

Clearly having a good research question doesn't mean you automatically do good research, but it does increase the chance that you'll at least know where to start. In addition, it's a good exercise for checking your understanding of the research principles outlined in Chapter 2, as research questions contain a number of implicit assumptions about social research that can either reassure reviewers that you know what you are talking about, or undermine your proposal or idea before it has even begun to get off the ground.

## Questions or hypotheses in quantitative methods

In quantitative designs, researchers use questions and hypotheses to provide sharp focus to the purpose of the study. Remember, quantitative studies are likely to be deductive, and so testing a theory or hypothesis, so the research question they are attempting to answer should follow directly from that aim.

Quantitative research questions tend to be concerned with the variables that the research wants to know about. It will particularly be concerned with the relationships between the variable seen as causing a relationship on another variable where the effect is measured, as well as probably also including a third variable which is being controlled for. So we might ask what the effect of gender on pay is in local government, controlling for education achievement level.

Quantitative hypotheses are predictions the research makes about the expected relationships among the variables that are included in the study. Hypotheses are

then tested using statistical procedures which allow researchers to infer whether or not they have been proved.

Research hypotheses are typically either 'null' or 'alternative'. The null hypothesis makes a prediction that no relationship exists in the general population between groups on the variable under question. So, to continue the example above, it would suggest that there is no significant difference between men and women's pay in local government, controlling for education level.

The alternative hypothesis (sometimes called the directional hypothesis), however, suggests that there is a relationship between the variables under question, and makes a prediction about its direction based on a previous theory or existing literature (which is why quantitative research tends to be deductive). So an alternative hypothesis might be that women are paid less than men in local government, controlling for education attainment level.

Finally, if we suspect there is a relationship between variables, but really don't know from existing literature which direction it is going in, we might make an alternative hypothesis that is non-directional – such as gender is related to pay in local government, controlling for educational level.

So, to summarise, research questions in quantitative methods will ask questions about clearly defined variables, which hypotheses can then test by gathering appropriate data and by using statistical methods.

What is the relationship between gender and pay in local government in York (which could be quantitative or qualitative, depending on what sub-questions you specified).

### Qualitative research questions

Asking research questions in qualitative research is usually a very different process from that in quantitative inquiry.

Qualitative inquiry is likely to result in an inductive approach to research. This presents us with an immediate quandary – if we don't know what we expect to find, how can we sensibly ask questions about it?

There is clearly some sense to this, but it is probably overstating the case somewhat. Equally, even if we don't know much about the social context that we want to research, that isn't the same thing as saying that we have no idea what we are trying to find out about it.

It is fair to say that, within qualitative work, research questions are likely to be expressed in a more open and less precise way than in quantitative research, which is usually aiming to test specific theories. In fact, a good starting point for putting together questions in qualitative research is to ask the biggest question you can...

### A central question

The process of qualitative research can often start by asking a big question that you'd like your research to answer. Quantitative researchers often struggle with



this, as they are used to specifying precise relationships between clearly defined variables. Qualitative research, in contrast, is more accepting of ambiguities and differences – that’s supposed to be its strength.

Asking a general, central question can be a good starting point. To go back to the example above, we might ask, ‘What is the effect on gender on pay?’ That’s certainly a big question.

Now we have specified the general area that we are interested in, we have some key concepts to think about – here we have ‘gender’, ‘pay’ and ‘public sector’. What we can do now is drill down into each of these concepts to try and generate sub-questions that get us further down the road to a study that is actually possible to research (without unlimited time and unlimited resources).

### Sub-questions

Starting with ‘gender’, ‘pay’ and ‘public sector’ we can now start being a bit more precise about each one. Starting with ‘gender’ we can think about the dimensions of gender and work out which ones we are most interested in researching here. Are we interested in relatively simple differences between men and women, or in more complex ideas where masculinity and femininity might come into play – in short, are we really saying ‘gender’ when we mean ‘sex’, or are we more interested in the more performative category of gender?

Thinking a bit more about pay, we might want to differentiate between full- and part-time work, between permanent and temporary work, between salaried and waged work, or any number of other categories associated with the idea. We will pick up on sub-questions depending on, once we’ve considered the dimensions of the idea, exactly what it is we want to research.

Finally (in terms of this example, anyway), there is the ‘public sector’, which could mean all services run by the state, or could be more precise, being local government or health services in a particular area, including those provided by both public and private sectors.

Having thought through our concepts, we can then begin to ask sub-questions that aim at directing the study in a more specific way. We might want to ask, ‘How does the performance of masculinity affect salary in local government in York?’ That puts together our concepts into a far more specific form than the central question, focusing our attention on the problem in hand.

We can then proceed to generate additional sub-questions such as, ‘How does the performance of masculinity in salaried jobs differ from its performance in non-salaried jobs in local government in York?’ Now I’ve got a comparison – two questions that explore the differences in the performance of masculinity in two different settings, those of salaried and non-salaried workers. I can continue to generate sub-questions until I’ve got all the dimensions that I think are important to cover, but – a word of warning – generating very large numbers of sub-questions is likely to lead to you being rather overwhelmed when it comes to your actual study.

## Some other general guidelines

The language of research questions can reveal a great deal. If you begin questions with 'What' then you seem to be putting together a descriptive question – you are trying to find out 'what' something is like. This is an open question that can be answered using qualitative work, but can also fit with quantitative designs such as surveys that are trying to find out the characteristics of those included. So you might ask:

What is the average height of eight-year-olds in Newcastle? (which is the basis of a quantitative study)

Questions beginning with 'How' equally tend to be open, but are generally more amenable to qualitative than quantitative research. This is because they are likely to provoke complex answers, and it may be difficult to come up with a quantitative design to take sufficient account of this. How questions are often linked to attempts to bring about change, and so can acquire a normative aspect quickly. An exception is where 'How' is simply followed by 'many', in which case you effectively neutralise the complexity quickly. So we might ask:

How does gender affect pay in local government in York? (which suggests to me a pretty open inquiry not based on existing theory)

Or:

How many women working in local government in York receive below median-level pay? (which suggests to me a quantitative project).

'Why' questions are a source of some debate. Some writers suggest that they are amenable to quantitative research, and this is the case provided that the causes and effects can be modelled in such a way as to prove or disprove an existing theory, and that the causes and effects tend to occur together so that their relationship can be shown statistically.

The question: 'Why do more women receive below median-level pay in local government in York?' could be answered using a quantitative survey tool that could provide several possible answers from existing theory or literature that participants in the research could answer (although finding the best group to answer might be a challenge here). Equally, however, it could be answered using qualitative research strategies such as a semi-structured interview, where the question could be asked directly, and participants answer in their own words (a strategy that, of course, is also possible using open-response questions in a survey).

For this reason, I tend to associate 'why' questions with either quantitative tools such as surveys, where we already know a great deal about the case in general (low pay and gender), and where we are looking to confirm a specific theory that we might be testing (due to career breaks to have children), but they are also

useful in qualitative work as they allow participants to respond directly and give their own ideas and interpretations of the question.

## Some practical examples of how questions, methods and philosophy combine

Examples of the importance of the concepts described so far in this chapter have already been given, but it's worth spending some more time on this to make the links as clear as possible. Three will be given here. It is worth stressing that, in order to work through these examples I can't possibly do justice to all the nuances and different versions of the examples that I work through. However, I do hope that the examples chosen are not unrealistically over-simplified.

### Experiments

Experiments are a good place to start in thinking about social research, not only because they have already been used in examples above, but also because most people reading this book will have carried out an experiment at some point in their lives. To think about experiments, we have to first disentangle what they are and how they work.

Experiments are usually associated with natural sciences – a first association readers might have is that of finding out the boiling point of water at school, or attempting to distil pure ethanol in chemistry class (or was that just me?). Experiments are a method that involves putting forward a hypothesis and null hypothesis of what the experiment is designed to test. So, to follow the natural science example we might propose that water boils at 100 degrees centigrade. What then happens is that a test of that hypothesis is designed to control for the variables within it. So we would be careful to be able to measure the temperature of water as accurately as we sensibly could, find a reliable heat source and be able to put the water in a container that will conduct heat without disrupting the experiment by polluting the water. We will also need a clear definition of what 'boils' means. We will then have a process by which we apply heat to the water, and be able to measure the temperature at which 'boiling' occurs. Once we have repeated this test sufficient times, we will be able to say that we have tested our hypothesis, and be able to draw a conclusion from the experiment that either confirms the hypothesis or the null hypothesis.

### Stages of experimentation

Experiments therefore have three phases. First, there is the stage of working out what it is you are going to test, and forming a hypothesis and null hypothesis.

This is a creative process which is inductive in nature in that it is attempting to think of a specific phenomenon that is worth investigating that might be representative of a general phenomenon. In social research, for example, we might be interested in post-industrialisation as a general phenomenon and want to investigate it, but have to come up with a specific hypothesis that allows us to address this general phenomenon, such as ‘former coal mining communities tend to suffer considerable decline unless they receive significant state investment’.

Once we have come up with stage one, we can move on to stage two – designing the specific test of the hypotheses we have come up with in stage one. This is a deductive stage in that it attempts to show, given our general proposition, how our specific example fits within them. So to continue the post-industrialisation example, we might examine the incomes or wealth of a range of communities that have lost their coal-mining industries, where some have had significant state investment and some not.

This takes us onto the third stage, carrying out the research itself, the carrying out of the experiment.

The final stage is that of interpreting our results. This is again an inductive process – trying to work out from the numbers we have collected what they mean by finding appropriate analytical tools. We can then compare our results to our hypotheses and find out what the case appears to be.

### The philosophical basis of experimentation

There are several key elements to experiments that have to be taken into account in the light of this chapter’s discussion to consider their suitability for social research as well as for natural science research. First, there are a range of philosophical assumptions. Experiments are based on the idea that there is an independent reality which we can access and investigate – or ‘realism’ – and is an ontological assumption (it assumes something about the world, rather than our knowledge of the world). From this assumption comes the claim that knowledge is good if it represents that reality – an idea known as the correspondence theory of truth. We know something is true if, by investigating it empirically, it seems to be the case. There is therefore a privileging of empirical investigation as a means of advancing knowledge. If we can’t measure a particular social phenomenon accurately, or there are other barriers to doing empirical research, then experiments might not be appropriate. The combination of all of these ideas together is often referred to as positivism.

### Features of experimentation

Experiments also have two specific features that are important. First, there is the idea that the external reality that we are testing can be controlled so as to allow individual elements within it to be investigated. A difficult question is whether

social phenomena more generally can be controlled in this way. Experiments assume that a 'closed' system can be created, or that a particular social phenomenon can be sufficiently controlled so that it can be tested one variable at a time. It makes sense to wonder whether this is often the case – at any moment in time countless things are often going on in social situations, so it can be very difficult to isolate the effect of just one variable. Recent research in experimental economics (Ariely, 2008) has shown remarkable creativity in achieving controls and closing social systems down so that the effect of one variable can be shown, but whether this is generalisable to other situations is a difficult question. If we can't control variables, then can we conduct a social experiment? Is it possible, given the multiple influences and factors often engaging with us in social situations, to measure their effects one at a time?

A second key question related to experiments is their treatment of causation. Causation is, in simple terms, a model of how we construct a model of how one thing can be said (or not said) to cause another thing. The model of causation experiments (along with lots of other kinds of social research) depend upon is called 'constant conjunction'. Constant conjunction is the idea that we can say that one thing leads to another if the two things tend to occur in sequence, together, in lots of different contexts. If I find that applying heat to water leads to it getting warmer in lots of different situations, then I might conclude that the heat is making the water warmer. If I find that introducing performance targets into public organisations makes them focus more on meeting targets than providing good service, and this seems to happen in a range of different settings, then I might be able to conclude that the targets are leading to the change in service (albeit within the 'closed system' constraint described above).

### Assumptions in experimentation

Experiments therefore contain a complex bundle of assumptions about the world. They are an example of quantitative research strategy, and are deductive as they involve testing a theory or hypothesis. Experiments are realist in that they presume that the world exists independently of our conceptions of it, and that we can access that world more or less accurately through our experience of it, so that good knowledge is that which describes the world (empiricism).

Experiments might appear to be an obvious way of conducting research, but questions about their appropriateness can be raised immediately upon considering the philosophical assumptions underlying them. Experiments presume an external world, and regard knowledge as being good if it can be shown to correspond to it (the correspondence theory of truth). They therefore privilege empirical knowledge, and so require us to be able to empirically measure the phenomena we are looking to investigate, as well as assuming that causes and effects tend to occur together – if there is a gap between them then this poses difficult problems. This usually means that, in order to conduct an experiment we must be

able to control the presumed external reality so that we can measure the effect of single variables upon it.

But what if any of these conditions doesn't work? Does that mean that we can't conduct an experiment? The theoretical answer to this is probably 'no'. If you compromise the design, then you risk claiming findings that are unjustifiable according to the method. The practical answer, however, is 'maybe', because you can try and argue that the condition you are breaching isn't so serious as to compromise the entire design. You must, however, be able to show how you are going to justify your experimental design choice given the breaches of condition that your question might lead to.

## Class analysis

### Basic ideas

Class analysis is not really a method in social science research, but more a tradition within sociology and political science that makes use of, and which favours, particular methods. Class analysis is associated with the Marxist tradition which states that underlying many of the recurring problems in society is the exploitation of one class (the proletariat) by another (the bourgeoisie). What this boils down to is that one class in society, a minority in terms of numbers but certainly not in terms of income or wealth, is able to dominate another, the majority of those who have to work for a living. The interesting question that comes from this is how this persists even though the majority of people seem to get rather a bad deal from it.

### How class analysis is different to experimental methods

Like experimental design, the methods of class analysis assume a reality independent of human perceptions of it, but unlike experiments, it suggests that accessing that reality might be problematic. A moment's thought shows why this is the case – if it were straightforward to discover the truth of the situation according to class analysis, that one class in society was exploiting another, then the exploited would have done something about it by now. So whereas class analysis would propose that although there is an external reality, it needs to find different methods to experimental analysis that allow us to access it because participants' beliefs, ideas and concepts might prevent them from seeing it. In sum, class analysis, at least in its contemporary realist guises (Sayer, 2005), would suggest that although social classes exist independently of our conceptions of them, our interpretation of them might differ from individual to individual or group to group.

### Methods in class analysis

The methods involved in class analysis also have a different model of causation to experimental work. Causation will be explored more in a later chapter, but for

the moment we can bring out something of the contrast between constant conjunction models and the generative model (Pawson, 2006b) often used in class analysis. Rather than causes always appearing alongside their results, as in constant conjunction models, they might have rather more complex relationships. A generative model suggests that mechanisms are at work which might shape our behaviour and interactions with others which might not be immediately obvious, or even occurring at the same place and time, but which are significant nonetheless. Our social class, for example, as well as having direct implications in terms of the financial resources that we have access to, might shape our attitude towards others, our beliefs about our role in society, our expectations of how far we should take our schooling, our ideas about what careers might be possible and a variety of other factors that can channel us through our life. Class analysis suggests that the social position we are born into matters profoundly – we have choices about where we go from there, but we have to recognise that they are not completely free choices. To paraphrase Marx, we make choices, but not necessarily in conditions of our own choosing.

Class analysis therefore has to proceed along rather different lines to an experiment. It has to use methods that seek regularities which shape our behaviour, but may have far more complex relationships than we can find using experiments. It might utilise quantitative methods, for example, to show how particular groups are being systematically discriminated against through benefits systems or employment opportunities. Qualitative research could attempt to explore how belief systems differ from one social group to another, and to show what difference this might make in society. Theoretical work in political science may make little specific use of empirical work at all, instead exploring how the particular combinations of structures present in society have causal effects on those living within them (as in Jessop, 2002).

Class analysts would tend to suggest that experimental designs are usually inappropriate in social research. They would argue that it is not possible to access reality in a straightforward way through empirical research, and that the constant conjunction model doesn't work because class often manifests itself in ways that can be difficult to measure straightforwardly and require a more creative approach to interpreting causality that involves looking for regularities rather than strict sequences of one thing following another.

### The philosophical basis of class analysis

Class analysis, then, works in a rather different way to experimental methods. Class analysis applies a particular theory about the world, that social relations are driven by class, and attempts to present a compelling account along these lines. This is, strictly speaking, neither deductive nor inductive in terms of its reasoning, although it is closer to deductive to inductive in that it is using a pre-existing theory.

Class analysis is, strictly speaking, an abductive research strategy, requiring a creative interpretation of the world from a particular perspective. Abduction is

different from induction or deduction because it is not constructing a theory from the data (as with induction) or testing an existing theory using hypotheses (as with deduction) – instead it is an interpretive process for understanding how the world works that stands or falls on how well it is able to explain what is going on (Danermark et al., 2001: 88–85).

Class analysis is, like experimental methods, realist, in that it presumes an external world. However, unlike experiments, it suggests that accessing that external world is not always easy because we have to do so through our interpretive world – and that means that it is possible to conceal the class factors that analysts in this tradition believe drive the world. So at the same time as being realist, class analysis is interpretive in that it requires us to interpret the external world rather than being able to access it straightforwardly, as with the empiricism of experimental methods. Class analysis also tends to be normative in that it seeks to emancipate people through a better understanding of their class position – by understanding that there is a relatively small number of people who have the majority of the world's resources, we might want to act upon this knowledge and do something about it. This is a position known as 'critical realism' – where we not only accept there is a world external to our understanding of it, but also that we should be doing something about the inequalities and unfairness that results from a better understanding of it.

Finally, because causes and effects do not tend to occur together in class analysis, and the class system acts upon our lives in complex and diverse ways, the constant conjunction model of causation used in experimental methods cannot work – it tends to depend on a generative model of causation instead that seeks to find the mechanisms that affect our lives, and which might be the result of long chains of events rather than simple linkages. The link between the number of hours our parents spent reading to us as a child, along with the number of books in the house and the availability of reading materials, and subsequent educational achievement might be complex and take years to become clear – a simple constant conjunction model is unlikely to work. But by viewing those factors as generative mechanisms that eventually lead to different educational outcomes, a less firm link is made that makes us concentrate on the many ways that reading and access to books might be important in a child's development.

## Actor-network theory

### Basic ideas

Actor-network theory takes a very different approach to understanding the social world than either experiments or class analysis. Actor-network theory's roots lie far more in anthropology than in scientific experimentation or Marxism, and as such, it is concerned with providing detailed descriptions of social contexts that explicitly attempt to avoid theory as much as possible.





## Philosophy and actor-network theory

Actor-network theory can be characterised as being incredulous towards realist claims that we are able to access the world in any kind of unmediated form (Law, 2004). Instead, it argues that as the social world is necessarily viewed by us from our own perspectives, and instead of trying to generate theories that simply underplay the complexity of the social world, we should instead focus on attempting to describe what is going on in all its mess and cacophony.

Actor-network theorists defy characterisation, but this perspective can be seen to have a great deal in common with idealism – the view that ideas are the only reality we are able to experience. As such, the social world, rather than being a source of and location for objective research (as with experiments) or a location for class oppression (as with class analysis), is the result of our inter-subjective experience – more in common with the human geographic approach described earlier in the chapter. If reality is determined inter-subjectively, then it is appropriate for research to be about understanding each others ideas, and understanding that they won't link together neatly but overlap and contradict one another, not because one is more truthful than the other, but because the world is open to multiple interpretations.

Idealism means being concerned not with attempting to find truth in an objective external world, but instead focusing on the perceptions and ideas people hold. It would argue that there are limits to the extent to which we can understand each other's experience because we have each had different lives that have led to different subjectivities. In particular actor-network research is concerned with respecting the voice of overlooked and repressed actors, and with inductively generating careful description from observation and careful note-keeping, with the maximum respect paid to those who work with researchers to generate the data.

## Methods in actor-network theory

Because of its roots in anthropology, actor-network writers tends to suggest detailed ethnographies are the most appropriate way of researching the social world (see, for example, Latour, 2005). Methods books that advocate the approach take researchers through detailed processes for note-taking and record-keeping along these lines, and then provide guidance as to how their accounts can be structured to reflect the complexities of the world that they find (see Mol, 2002, for a combination of both actor-network account and methodological discussion).

There is also implicitly a different model of causality present in actor-network analysis that we might refer to as discursive causation. Because of the belief that reality is inter-discursively constructed, then causation also follows the same pattern, meaning that causes are often the result of oppressive practices and concepts that must be located, exposed and changed. If we can change our concepts and practices, then we can reach a fairer and more equal society. Causes lie within these concepts and practices, and it is these must be addressed.



**Table 1.1** Different approaches to social research

	<b>Experiments</b>	<b>Class analysis</b>	<b>Actor-network analysis</b>
Assumption about external world	External world exists, and is accessible to empirical research	External world exists, but is not always easily accessible to empirical research	External world is the result of our concepts and its existence or otherwise is largely irrelevant
Favoured method type	Quantitative empirical	Quantitative and qualitative, interpretive	Favours qualitative over quantitative, descriptive
Favoured type of knowledge	Numeric, hypothesis-derived.	Numeric and discursive, class-derived	Discursive, emancipatory accounts
View of social system	Product of the effect of variables that can be controlled	Product of class-based mechanisms that empirical research cannot reveal	Product of inter-subjective mechanisms through concepts and practices
Model of causation	Constant conjunction	Generative causation	Discursive causation
Research strategy	Deductive	Abductive	Inductive

A comparison between experiments, class analysis and actor-network theory is shown in Table 1.1.

What this amounts to is that different methods not only have different research agendas and procedures, but also that they look at the world in different ways. Thinking about these differences considering the philosophical ideas above provides us with a way of informing our choices, but also explaining why it is that different approaches to social research often seem to talk past one another – it is because they are thinking about the social world in very different ways.

## What’s the problem, and how are you doing to research it? A logic of appropriateness

### Experiments and the scientific method

A good starting point for thinking about how you are going to go about social research, then, is to think about the assumptions that you hold about research. Do you believe that social research is about approximating the scientific method as closely as possible, discovering real phenomena in the social world as writing it up as an objective, independent researcher? If so, then experiments are likely, of the three versions of social research considered here, to be the most appealing to you. In disciplines that have taken their inspiration from scientific methodology, such as psychology and economics, these methods tend to be most widely used. This type of research has produced remarkable insights into how humans behave, and has prestigious awards such as the Nobel Prize for Economics available to it.

However, this view of research is not exempt from criticisms, and its advocates have to understand different perspectives than their own. All researchers should

be able to take part in informed discussions considering whether there are any limits to the fields in which their methods can be used, and what the limitations of using those methods might be. Future chapters continue this discussion.

### Class analysis and realism

The class analysis position described above is most associated with contemporary realism (including critical realism). Realism explicitly suggests that there is a need to separate out ontology from epistemology and methodology (for a full exploration see Archer, 1995). Realists acknowledge that there is a world external to our perceptions of it (and ontological claim), but also that we can have different perceptions of that world (an epistemological claim).

What is needed, according to realists, is research strategies that acknowledge that reality is both complex and open to differing interpretations. This points firmly in favour of mixed-methods research, often with quantitative approaches that look for societal patterns that may not be immediately obvious, and qualitative methods that attempt to find out how those patterns impact on people's lives. To revisit the class analysis example, there is still a great deal of work to be done tracking the very many ways that education affects our life chances, with quantitative research being able to look for patterns between educational results, life expectancy, lifetime income, susceptibility to illness and a range of other factors, complemented by qualitative research that can attempt to examine these interplays 'close up' – by looking at whether hospitals treat patients of different social class in different ways, for example.

However, just because realism forms a 'middle way' here between the scientific, hypothetico-deductive model and the idealism of actor-network theory, it doesn't mean it is without problems. Contemporary texts on the philosophy of social research often suggest realism is that most persuasive of the approaches available in social science (Benton and Craib, 2001) but it is also possibly the most complex. Realists, because of the generative model of causation, can occasionally appear as if they are able to find their own pet theory in any dataset – a complex model of causation allows there to be considerable distance in space and time between causes and effects, running the risk of researchers imposing their own ideas on every social issue they investigate. Class researchers might have a tendency to see class at the root of every issue, gender researchers see gender and ethnicity researchers ethnicity.

Equally, combining methods is a fraught business raising lots of questions about purpose and fit that must be handled thoughtfully and carefully (see Chapter 12). Just because mixed-methods research is currently fashionable, and supported by a realist approach, it doesn't mean it is always appropriate or the right thing to do.

### Actor-network theory and idealism

I've identified actor-network theory as being idealist in nature, and for the purposes of our example, the tradition in research that I identified represents a third

perspective on social research – one that emphasises the importance of subjective knowledge, and which celebrates difference. Actor-network research seeks to examine our inter-subjectivity and raise awareness of how the categories which we use to divide up our experience can create unfair power relationships.

Again, as with experimental and realist perspectives, there is a great deal to be said in favour of actor-network analysis. Our concepts do undoubtedly influence the way we experience our lives, and detailed accounts that show difference in the social world can go a long way to show how this affects our understanding of it. However, its idealist starting point leaves it open to criticisms from realists that it has little to say about the actuality of social inequalities, concentrating too much on the experience of them so that problems of poverty and health are reduced to interpretations rather than having a physical basis. Equally, a complaint against its subjectivist epistemology would be that, in respective others' standpoints, it leaves no room for criticisms of practices that researchers from other social research traditions believe should be roundly condemned. If you accept that others have a standpoint or perspective different from yours, and that you cannot fully understand their world because you lack their subjectivity, then what right do you have to criticise them, even if they behave in a way that people from your own cultural background might find barbaric and cruel? There are answers to these questions, but they require actor-network researchers to be aware of alternative approaches to social research and to be able to understand their research in relation to them.

## Conclusion

In all, what I'm trying to ask for is for researchers from different perspectives to gain an understanding of how their approaches differ, and for this to promote dialogue rather than conflict. Social researchers will disagree about the best way to do social research, but understanding our differences gives us a better chance of learning from them and of doing better research in the future as a result.

### Five things to remember about this chapter

- 1 Social research embraces a wide variety of positions and has a number of terms you will have to get to grips with in order to be able to understand what you are being asked to do.
- 2 Research projects tend to initially be split into those that are primary and those that are secondary. Primary research projects get researchers to collect their own data, whereas secondary research projects are those that re-use existing data or get researchers to come up with a new perspective on existing data.

- 3 Research projects that try and build theory from data are inductive, and tend to be qualitative (although this is not always the case), as they are based on trying to capture the fine-grained nature of the world through methods such as observation and interviewing.
- 4 Research projects that try and test existing theory are deductive, and tend to be quantitative (although, again this isn't always the case), as they are based on using robust procedures to prove statistically whether a particular hypothesis can be supported or not. The experimental method is the archetype here.
- 5 These different methods have very different underlying philosophies, and it is important to have an understanding of these differences, not because it will allow you to show how clever you are, but because it can help you to design social research so that it is more coherent and so has a better chance of success. Knowing all the philosophy in the world can't guarantee that you do a good project, but it can prevent you from making mistakes, such as claiming that you are going to prove or disprove a theory by using a method which simply doesn't offer this as a possibility. As it would be odd to try and generate an in-depth understanding of a social setting using an experimental design (odd, but not impossible), it would be odd to try and test a theory using qualitative data because words, videos or other recordings, the primary forms of qualitative data, can't really be used to prove or disprove anything.