Sometimes methodology textbooks dilute debates about research to a binary opposition between interpretivism and positivism, which use, respectively, qualitative and quantitative methods (for example look at http://www.ehow.com/info_8144495_qualitative-quantitative-research-methods.html). Other texts explain that the binary opposition between quantitative and qualitative methods hides the more nuanced views of many researchers these days, who utilise a variety of methods to obtain knowledge about the social world (e.g. Alexander *et al.*, 2008). However, we believe that it is important to have a basic understanding of the assumptions that underpin the three key theories of knowledge before beginning research as, even when researchers mix methods, they need to be clear about the assumptions they are making about the world they are researching and about the best way to carry out that research.

POSITIVISM

Students who are new to research are likely to have some understanding of what is meant by positivism – even if they are not familiar with the term. Positivism refers to an approach to research which largely copies the approach of science. The key assumptions are that there is a real world 'out there' that can be discovered or known. As positivists assume that it is possible to treat the social world in the same way as the natural world then the logical deduction from that premise is that the methods social scientists use should be the same as the methods used by 'natural' scientists. Natural scientists sometimes claim that they begin their research with the collection of 'facts'. Once facts have been collected (e.g. numbers and types of people who commit burglary), then it is assumed that theories can be developed from the facts. For example, if it was observed in many different places at different times that the main characteristic of a burglar was 'thinness' we could keep checking this out until we were sure that we had enough information to convince us that this characteristic is so significant that we could conclude that 'all burglars are thin'. This is what is known as 'the principle of **induction'** (see Chalmers, 2004: 41). Of course, it is easy to see that this is a frivolous example, although early criminologists did try to identify the physical features that were common to criminals (some of you may have heard of Lombroso, for example, who wrote *L'Uomo Delinquente [Criminal Man]* 1876). However, it may be that successful burglars do need to be reasonably slim and nimble in order to avoid being caught!

Induction involves a process of generalisation from a finite number of observations, which as the philosopher of science Karl Popper (1980) realised, is based upon flawed logic. For one thing what one person defines as 'thin' may not be the same as another so this means that in reality it is very difficult to observe in ways that exclude our values. More importantly, no matter how many times we confirm something we cannot really say that we have found 'the truth' because our next observation could always be the one that proves us wrong – the next burglar may be fat! Popper's view of science was therefore that researchers should maximise their chances of being proved wrong by setting up hypotheses and testing them out, rather than trying to gather evidence that confirms their theory. A method that begins with theory (rather than 'facts' or data) is

from Laura Caulfield and Jane Hill, Criminological Research for Beginners: A Student's Guide (Abingdon: Routledge, 2014).

called **deduction**. Popper did not think that we could collect facts that are free from values; we can say that 'facts' are always mediated by our values.

The criteria by which studies carried out in this framework are judged are reliability, representativeness, accuracy and validity (see also Chapter 9). It is assumed that research carried out within this framework can lead us to 'the objective truth' about crime and that it can explain why crimes occur. This approach to research will use quantitative methods as it is largely concerned with measuring concepts and with **correlations** between variables. It rejects interpretation as that is considered to be outside of science. This theory of knowledge also tends to take a deterministic approach which fails to acknowledge that human beings can act upon the world and are not simply acted upon. So for example, early biological positivists believed that criminals were born 'bad' and that they could be identified by their features. The implication of this is that criminals cannot change. A small proportion of radical feminists also asserted that men were 'by nature' more violent than women. This led them to the belief that the solution was for women to radically separate themselves from men and take control of reproduction (see Firestone 1970). This particular feminist perspective would not come under our definition of critical criminological research as this too denies the possibility of change and human agency. We call such assumptions *biological determinism*.

BOX 2.2 KEY TERMS EXPLAINED

Reliability: When positivists speak of reliability they are usually referring to the issue of whether the data are collected in the same way each time. In the previous chapter we suggested that crime statistics are *not* collected in the same way in all areas. As a simple rule of thumb think about whether you have been given sufficient information about how data were gathered in any given study in order for you to repeat the study in exactly the same way and come up with the same results.

Representativeness: This term relates to the issue of how far the data represent the group of people being researched. If researchers wish to generalise across the whole population of young people involved in crime in England, for example, it would be no use identifying a large group of 15-year-olds from one locality. Rather it would be necessary to specify what is meant by 'young people', e.g. 12–18 and to survey a cross-section from different areas – urban, suburban, rural, and from different class and cultural groups.

Accuracy: In order to have confidence in data collected we do need to know that researchers have made an effort to ensure that there are no mistakes in the mode of counting.

Validity: In positivism this term refers to the issue of whether the data collected actually measure the concepts being investigated. For example, if you wanted to test the theory that improved lighting in car parks reduced theft you would need to show that you had examined the levels of theft prior to the changes to the lighting and you would need to take into account other factors, for instance the installation of CCTV cameras to make valid claims about the benefits of improved lighting.

Some positivists assert that knowledge gained according to the rules of positivism is *superior* knowledge because it is not tainted by values or opinions. They believe that knowledge so derived can be used to control events in the future. As we shall see, and as we have already suggested to some extent in Chapter 1, the claims to superiority are open to question. This does not mean that studies carried out in this framework are not useful but rather that we need to be aware that just like any other framework it has limitations.

INTERPRETIVISM

As this name suggests interpretivists challenge the idea of an objective reality that can be grasped through research. They are more concerned with people's subjective understanding because they assert that the subject matter of the social world is completely different to that of the natural world. Thus their *ontological* assumptions differ from positivists'. In sociology and social psychology interpretivists have pointed out that as people are thinking and purposive beings it is entirely inappropriate to treat them as if they are 'things'. At its most extreme this framework asserts that reality can only be understood as consisting of those things of which we are conscious – the logic here being that if we are not conscious of something it does not exist in our experience. However, this extreme position is not held by everyone who works within this framework and we believe that such a position is problematic because things *do* exist beyond people's consciousness. For example, many of us may have been victims of crimes without knowing that a crime has taken place, such as the dilution of products like fresh juice or alcohol in a restaurant or bar. This sort of thing can happen on a grand scale and not be detected, but it does not mean that it has not happened. A more serious example is rape within marriage, which has only been a crime in England and Wales since 1992 yet women *were* being raped within marriage prior to that date and just because it was not then defined as a crime does not mean that their suffering was not a reality. However, a strength of the interpretivist approach is its ability to identify such suffering by speaking in depth to people and bringing the issue to light. (We will return to this when we consider the third approach, critical criminology.) Interpretivists have carried out important studies through which criminologists have gained knowledge about the ways in which those who break the law see the world. Some interesting examples are cited by Punch (2009: 179–81), who has documented some of the ways in which qualitative studies have revealed how police officers become corrupt. The various data reveal that corrupt cops rationalise their own criminality and construct their victims as deserving of their victimhood – in fact their rationalisations are just like those associated with the 'more usual' suspects.

Researchers operating within the interpretivist theory of knowledge contest the notion that knowledge derived from the positivist epistemology is superior. Instead they would argue that positivistic knowledge is simply a different kind of knowledge than that gained using qualitative methods. For interpretivists it is important to access the life worlds of those being studied in order to understand the meaning of their actions to them. This seems to us to be quite important if we are to address the issue of crime in society.

It is hard to carry out qualitative studies that are easily repeated. Criminologists who carry out studies within this framework prefer to talk to people in depth or to observe the life worlds of criminals. These data do not lend themselves to measurement therefore it is not appropriate to judge them by the criteria used to judge quantitative data. When the term validity is used in **qualitative research** it does not refer to the issue of how far the researcher has measured what s/he set out to measure but rather it refers to the question of whether the researcher has managed to convey an authentic account from the viewpoint of those being researched and whether the conclusions drawn by the researcher are plausible. Within this perspective the important issue is not so much whether a research participant tells 'the whole truth' but rather how a participant constructs the truth in different circumstances. This can reveal quite a lot about the decision-making processes that criminals go through prior to committing a crime. It can also reveal quite a lot about how criminals convince themselves that what they are doing is not wrong. Researchers can increase confidence in their findings if they are able to provide a detailed account of the ways in which their own role as the researcher may have impacted upon the findings. This is called **reflexivity** – see below.

CRITICAL CRIMINOLOGICAL RESEARCH

Critical criminologists are concerned with examining the ways in which we come to accept the world as it is. This means that the route to knowledge is via theoretical understanding of the mechanisms through which we make sense of our world. If we take the example of marital rape again, a concern of many feminists, it becomes apparent that there was for a long time an uncritical acceptance in society of men's rights to women's bodies once they were married. Without knowledge and understanding of the relations of power through which this view was maintained the law would not have been changed because the notion of a 'conjugal right' was accepted by both men *and* women (although not *all* men and women). It was only after considerable campaigns by feminist writers that the laws in relation to rape were changed. As Oakley (2002) has argued, definitions of crime have largely been formed by middle-class males and we might add oftentimes in the interests of that same group. One of us (the oldest!) has been shocked in recent years to find that many students were not only unaware of the fact that rape within marriage is a crime but that they were also puzzled by the notion of rape within marriage. This is an indication of the ways in which attitudes can remain untouched long after the legislation has changed. The ways in which these attitudes are formed are therefore of interest to critical researchers who are concerned with the ways in which oppressions are both produced and reproduced in our everyday lives through socialisation processes and media representations, for example. Critical criminologists' ontological position is that the social world is multi-layered and has hidden structures through which oppressive practices are maintained. These structures have real effects on people's lives therefore research has to expose them in order to bring about change.

As critical criminologists concern themselves with oppressive practices their research questions address issues such as why poor and black minority ethnic (BME)