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Psychology in the 21st century

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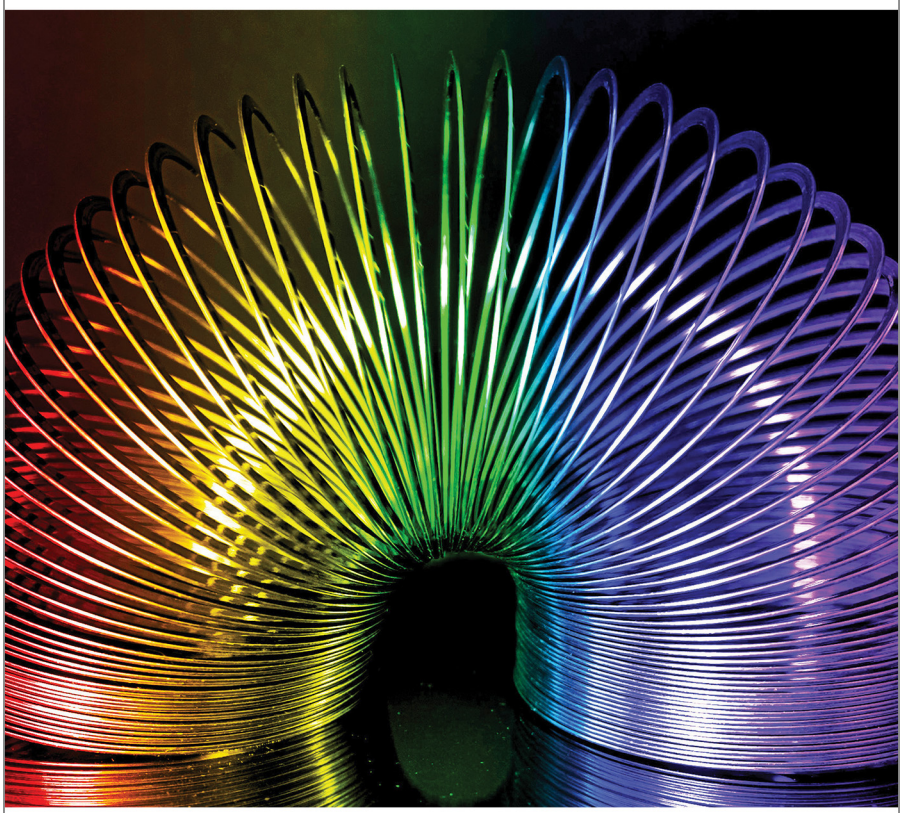

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Head of Intellectual Property, The Open University
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The Bath Press, Bath

Contents

Introduction

The key message of this course is that *different* psychologists focus on *different* aspects of human behaviour in *different* ways. Take the topic of *learning*, some psychologists will study what happens in our brain when we learn, while others will consider how we learn within a social context. This course will first highlight how psychology is now a very visible part of everyday life and then explore its diverse roots in medicine, philosophy, biology, psychoanalysis and ethnography. It will show that there is no single way of answering psychological questions and that psychology is a multifaceted discipline, drawing on a range of methods and data. The course covers a lot of ground so you may wish to read through the material several times.

This OpenLearn course provides a sample of Level 2 Social sciences

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Learning Outcomes

After studying this course, you should be able to:

- describe the diversity of psychology as a discipline
- list some of the ways psychologists focus on different aspects of human behaviour
- identify different methods psychologists use to explore human behaviour
- illustrate the importance of ethical considerations.

1 Orientation

1.1 Psychology in everyday life

Psychological ideas are popular in everyday life because the subject matter of psychology is people and, hence, ourselves. Even if you have never studied any psychology before, it is likely that you will have encountered psychological ideas in the media or in discussions with other people. Psychological research findings and their practical and professional application are regularly in the newspapers, on television, radio, and on the Internet. For example, the possible evolutionary origins of behaviour, emotions, consciousness and the brain, and the impact of various therapies, are all recurrent debates in the media in many countries. These public debates help to make psychology a very visible part of everyday life and culture.

Yet, all this media coverage can confuse anyone wanting to find out what psychology is about because psychological knowledge is presented in a variety of ways. For example, 'common-sense' psychological ideas have long been presented in the media. A good illustration of this kind of common sense might be the topic of 'leadership', something that is commonly talked about in everyday language. Television, radio and newspapers often raise questions or offer un-researched opinions on leadership qualities, failures of leadership, why a historical figure was a charismatic leader or why some people seem to have the power to influence cults to engage in dramatic and often self-destructive behaviours. The media also can present rather dubious interpretations of psychology drawn upon largely to support the arguments journalists wanted to make in the first place, as when reporters contact psychologists hoping to get a ready quote about why holidays are stressful or why men hate shopping. More recently, however, and for our purposes more usefully, in many countries there are now books, articles, radio programmes and quite substantial television series dealing in a serious manner with psychological research and debate.

Activity 1

Try to think of examples of psychological topics you have encountered recently in the media. Write these down. Note your reactions to the way they were presented. Do you think they were handled in a serious, balanced way, giving relevant evidence, or were they treated in a superficial and perhaps journalistic manner? Have another look at these notes when you reach the end of this introductory section and see if you have changed your views.

As you work through this course you may find support for some of your ideas about psychology, but find that others are challenged because, not surprisingly, psychology is not entirely as it is portrayed in the media. We would like to welcome you to the study of psychology, and hope that by the time you have read this course you will be able to evaluate commonly presented psychological issues in an informed way.

Those of us who have written this course are excited by our subject matter. You will see as you go through the sections that we have different areas of expertise and interest within

psychology. One of the major aims of the course is to introduce you to that diversity and to invite you to share our enthusiasm. A discipline that encompasses such diversity and continues to be dynamic in producing new knowledge and new ways of looking at the world and human beings has much to offer.

1.2 Psychology has wide appeal

Some people will be doing this psychology course to consolidate earlier study and experience and to build a career. Others will be quite new to psychology as a formal research-based discipline. Some will have been stimulated to study a course in psychology by the well-publicised examples of research findings or psychologists at work that are presented in the media. Some will be coming to this course because of experiences in their own personal lives. This may be because they have been touched by especially difficult circumstances which they want to come to terms with, or because they feel the need to understand psychological topics such as identity, personality, relationships, intergroup relations or unconscious motivations. Others may have become curious about basic psychological questions such as how we perceive, the nature of memory, why we forget, and how we can understand the processes of learning. Psychologists working professionally, whether doing research or in their psychotherapeutic practices, can help us to think about such everyday issues.

Whilst no psychology course can promise definitive answers to all the questions in which you personally may be interested, the material in this course will increase your knowledge and your awareness, and provide ways of thinking about psychological issues of many kinds. In this course we want to indicate how we have arrived at the contemporary, multifaceted discipline of twenty-first-century psychology and discuss some of the issues which psychologists debate and study.

Activity 2

Consider the suggestions we made about why people might be studying this course and then list *your own* reasons for studying psychology. Think about this question in some depth; don't stop at just one reason. Try to bring into mind anything that might be of relevance to you, especially at this particular point in your life. If you can, keep these notes until you reach the end of the course and then consider if, and how, the psychology you have studied has illuminated these original goals.

1.3 Psychology has social impact

The relevance of psychology to everyday concerns, and the ease with which it can be popularised and used, mean that psychological knowledge – some of it dubious, some of it accurate – is continually absorbed into culture and often incorporated into the very language we use. Examples of psychological concepts that have entered popular discourse include the notion that we are predisposed, both through evolution and through the functioning of our brains and nervous systems, to behave in certain ways and to have intellectual and emotional capacities and limitations. In many cultures psychoanalytic ideas are commonplace; for example, the centrality of sexuality and its repression, and the idea that Freudian ‘slips’ – mistakes of action – reveal unconscious motivation. Many

people speak of having short-term and long-term memories and recognise that they use different strategies for remembering details of recent and more distant events. And a lot of people now know that it is possible to be fooled into perceiving illusions as real and that things as routine as face-recognition or behaviour-in-groups are extremely complex. Many people have absorbed and take for granted the psychological notion that what happens to us in childhood has an influence on our psychological functioning over the rest of our lives. Ideas about the importance of parenting and parental styles of child rearing have also become part of ordinary talk, with the result that some children now complain about not getting enough 'quality time' with their parents.

These examples demonstrate also how psychological concepts have an impact on the ways in which we think life should, ideally, be lived. Such ideas, and many others, have been influenced by psychological research, even when they are ideas that are not widely recognised as psychological. Furthermore, psychologists are increasingly being called on to give expert evidence on questions as disparate as legal decisions and design issues. It would, therefore, be true to say that psychology has an impact on our beliefs about ourselves and how life ought to be lived as well as on our everyday behaviours.

So far we have highlighted a pathway of influence *from* psychology *to* society. But this is not a one-way street. It is certainly the case that psychological research quite often addresses questions that originate in common-sense understandings. And this direction of influence between psychology and ordinary, everyday knowledge about people has led some to suggest that perhaps psychology is no more than common sense. However, as a field of enquiry, psychology is about much more than common sense, particularly in the way it investigates its subject matter.

Psychological knowledge advances through systematic research that is based on consciously articulated ideas. And psychology is evidence-based. Psychologists may *start* from the knowledge they already have by virtue of being people themselves. This can be knowledge about people and psychological processes that are common in the culture or it may come from personal experiences of dealing with the world. It is these kinds of knowledge that are often called *common sense*. For example, one tradition in the study of personality began from the ordinary-language adjectives that everyone uses to describe other people's characteristics. And many psychological researchers have chosen research topics and studied them in ways that seem to reflect their own life concerns.

However, evidence-based research findings quite often contradict the common-sense understandings of the time, and can produce new understandings that themselves eventually become accepted as common sense. For example, in the middle of the last century, it was widely accepted in Western societies that infants should not be 'spoiled' by being attended to every time they cried. Consequently, they were expected to learn to spend time without adult attention. But a wealth of psychological research from the 1960s onwards has reported that even very young infants are able to interact with other people in far more sophisticated ways than had been thought. And it has been found that they develop best when they receive plenty of stimulation from the people around them and their environments more generally. The idea of leaving infants to cry or to spend time alone is now much less accepted than it was. Instead, the notion that they need stimulation has become part of ordinary knowledge about child rearing and generated a multimillion dollar industry in the production of infant educational toys.

Although psychologists may begin from 'ordinary' knowledge or their own preoccupations, they usually start formulating their research questions using the existing body of psychological knowledge (the literature) and the evidence-based research that their

colleagues and co-workers are engaged in (see Box 1). Sometimes technological developments can lead to entirely new research directions. These new directions might not have been envisaged through the application of common sense or using older evidence-based methods. One example of such a technology-driven new direction is *neuropsychology* and the increasing application of brain-imaging techniques as a way of furthering understanding of behaviour and mental processes. Other examples are advances in genetics and the decoding of the human genome, as well as computer-aided analysis of videotaped observations.

Box 1: Using evidence: the cycle of enquiry

What do we mean when we say that psychology is an evidence-based discipline? The basic principle is that it is necessary to have some means of evaluating the answers to psychological research questions. Sherratt and her colleagues (Sherratt et al., 2000) devised a 'circuit of knowledge' as a way to help students examine evidence and move away from common-sense reactions to psychological questions. We have used a version of this that we call the cycle of enquiry (see Figure 1).

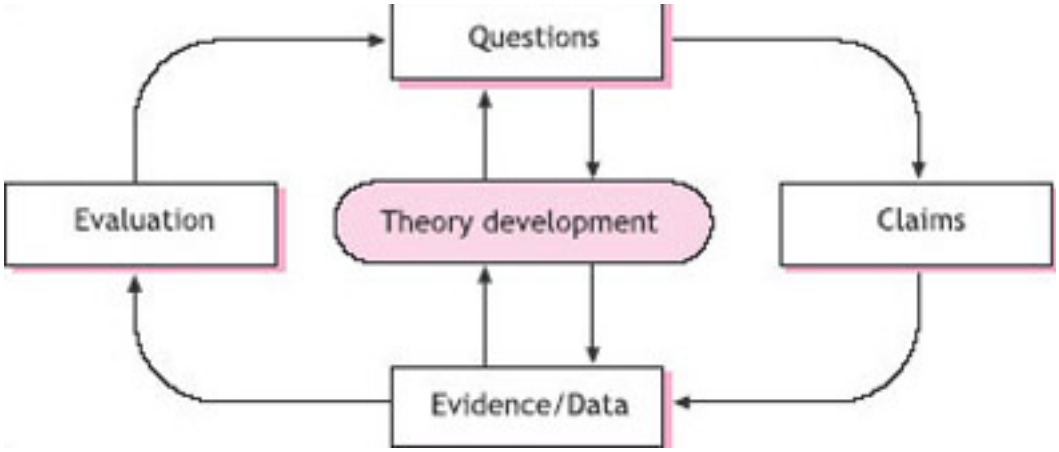

Figure 1 The cycle of enquiry

Source: based on Sherratt et al., 2000, pp. 17–18)

There are four elements in the cycle of enquiry:

1. Psychological research starts with the framing of appropriate, answerable *questions*.
2. The answers to these questions are *claims*. These claims have to be clearly identified so that they can be thoroughly assessed.
3. Assessing claims requires the amassing of information called *data*. The word 'data' is a plural word for the building blocks that make up the *evidence* that is presented in support of a claim.
4. The evidence then has to be interpreted and evaluated. The process of *evaluation* often generates new questions to be addressed as well as providing support for, or disconfirmation of, the original claims.

1.4 The diversity of psychology

Since psychology is concerned with the full range of what makes us human, it is not surprising that the scope of the discipline is extensive. Psychology has always been a diverse, multi-perspective discipline. This partly results from its origins. Psychological questions were asked first by philosophers, then increasingly by biologists, physiologists and medical scientists. The diverse origins of psychology are visible if we consider four 'founders' of psychology – all of whom produced influential work at the end of the nineteenth century.

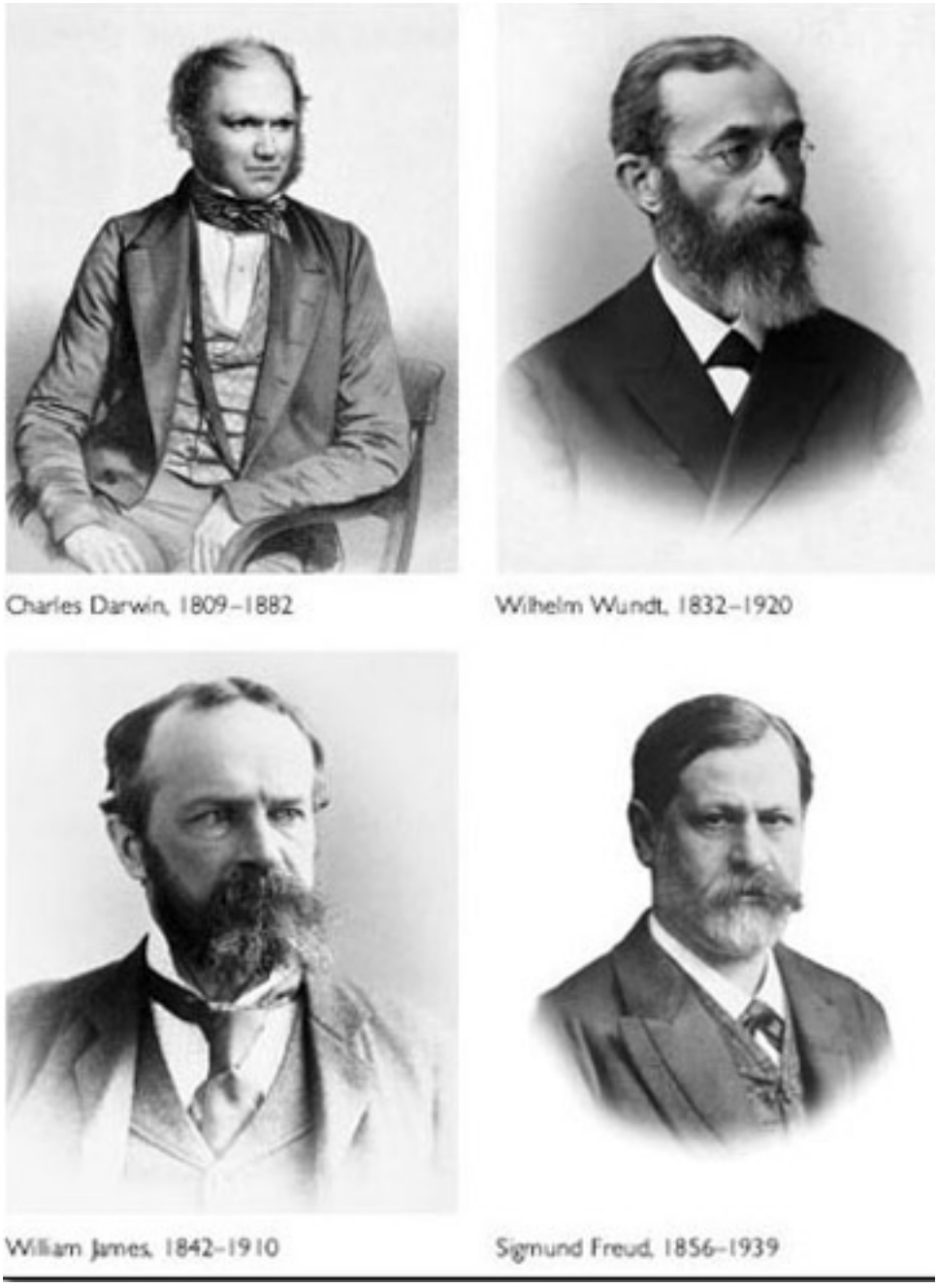

Figure 2 The four founders of psychology

In 1877, Charles Darwin, the biologist who later put forward the theory of evolution, was doing the first scientific infant-observation study, observing and writing about his son's

behaviours and emotions in descriptive psychological terms. Darwin was trying to make inferences about what his baby's internal mental states might be, based on what he could observe 'from the outside'. Darwin went on to become a renowned biological scientist whose methods were essentially the painstaking collection, description, categorisation and cataloguing of biological diversity. These were the data that later provided the evidence for his theory of evolution.

Wilhelm Wundt is considered by many to have started psychology as a formal discipline when he opened the first psychological laboratory in 1879 in Leipzig, Germany. He was interested both in philosophical and physiological questions and, as a result, advocated a range of methodological approaches to collecting evidence. His own methods included use of the *scientific experimental method, introspection* (asking people to think about and report on their inner feelings and experiences), and *ethnography* (observations of human culture).

William James, an American professor trained in philosophy, medicine and physiology, who published the influential *Principles of Psychology* in 1890, also advocated a multi-method approach that included introspection and observation. Sigmund Freud, the first psychoanalyst, was a medical doctor and research physiologist who opened his psychology consulting room in Vienna in 1886. Freud, working at the same time as Wundt and James, pioneered a method that involved listening closely to people's personal *accounts* of their symptoms, emotions, and their lives more generally, asking insightful questions and attending to the particulars of language use and unconscious phenomena.

The methods established by Darwin, Wundt, James and Freud – observation and description, experimentation, introspection and a focus on language – provided psychology with the beginnings of its diverse traditions. Some of these continue to be influential, whilst others have lost favour or been substantially developed.

Although psychology has diverse roots, psychologists with different approaches and methods have not always happily coexisted. There have been many heated debates about the scope of the subject matter and methods that can be claimed to be psychological. Many of the clashes have been about what can be thought of as 'real' or 'legitimate' evidence. But it has not just been individuals with their own inspirations and beliefs who have introduced particular ways of doing psychology. Different historical periods, cultures and countries generate their own assumptions about what to study and how knowledge, including psychological knowledge is, therefore, situated in time and place.

A graphic example of this concerns the impact of the Second World War on the development of Western psychology. Many Jewish German psychologists and others from German-occupied territories fled, some to Britain (for example, Freud), but most to the USA. These eminent psychologists brought their substantial influence – their ideas and European way of thinking about psychology – to universities in the USA where psychology was expanding. And then the horror at what had happened in Nazi Germany led some psychologists to direct their research to issues like authoritarianism, conformity, prejudice, leadership, small-group dynamics and attitudes.

It is not only cataclysmic events that have led to change and development in psychology. There have also been gradual cultural shifts in ways of thinking about how knowledge should be gained and evaluated. It is perhaps not surprising that different historical periods can produce dominant trends in psychology that occur almost simultaneously in different countries – no doubt influenced by international contacts between psychologists. It is striking, for example, how *laboratories* devoted to systematic psychological research were initially founded in several Western countries within about 10 years of each other

(see Table 1). But the climate of thought can also be very different in different countries and the topics and methods of psychological research, at a given time, may be very different across different countries.

Table 1 Foundation of early psychological laboratories

Germany:	1879 (Wundt opened the first psychological laboratory in Leipzig)
USA:	1883 (American Psychological Association founded in 1892)
Denmark:	1886
Russia:	1886
Japan:	1888
France:	1889
Italy:	1890
Canada:	1890
Belgium:	1891
Switzerland:	1891
United Kingdom:	1891 (British Psychological Society founded in 1901)
Netherlands:	1892

Source: adapted from Zimbardo et al., 1995, p. 6

In psychology, different historical times have also been characterised by the dominance of different methods and theories. For example, dissatisfaction with the limitations of introspection as a method of enquiry – resulting from the difficulty of reporting on conscious experience – gradually developed in the early twentieth century. This difficulty with the method of looking inward into the conscious mind and with the kinds of data that can be collected by this means led to the rise of *behaviourism*, which became dominant in the 1940s and 1950s. Behaviourism insists that psychologists should study *only* behaviours that are observable from the outside and should make no inferences at all about mental states and what might be going on inside the head.

Then, in the 1960s, there was a 'cognitive revolution', a rather dramatic phrase which describes what was indeed an important shift in thinking about psychology. Many (although not all) researchers in psychology began to take a greater interest in what goes on in the mind. This change of perspective led to what is known as *cognitive psychology*. The shift began with the study of learning, but became established as the study of information processing associated with mental activities such as attention, perception and memory. Researchers in cognitive psychology did not return to introspective methods but devised other ways of testing their ideas about mental processes. They have, for the most part, continued the tradition of using experimental methods but have adapted them to investigate what goes on in the mind; for example, by finding out how well people remember words presented in lists of related words (e.g. 'Fox' in a list of animals), compared with words presented in lists of unrelated words. A clear behavioural measure (the numbers of words remembered) can be used to make inferences about how the lists have been processed and how memory works. This scientific experimental method continues to be dominant within psychology.

More recently, there has been a second cognitive revolution; this time the shift being a broadening of focus from mental processes to studying how meaning is understood through cultural practices and language. As a result there are a variety of methods

available to psychologists who want to study language and culture. And many psychologists who conduct experimental investigations of cognitive or social processes now also attend to participants' own accounts of their experiences.

All areas of psychology are increasingly concerned with investigating issues relevant to people's everyday functioning and their social and cultural contexts. The practical and professional application of psychology is important in many areas of life. Psychologists work as professional advisors, consultants or therapists in a range of settings such as education, the workplace, sport and mental health; and they increasingly research areas of immediate practical concern such as dyslexia, stress, police interviewing of eye-witnesses, and autism.

So, whilst earlier traditions like psychoanalysis or behaviourism still contribute and produce important innovations, the discipline of psychology has continued to develop in ways which have fostered an ever broader range of perspectives. No one approach is either 'right', or adequate for answering all psychological questions. As a result, psychology is now seen as legitimately multifaceted, with many traditions working in parallel, and also drawing on other disciplines and their methods for inspiration.

1.5 Summary

- In many societies and cultures psychology is now a very visible part of everyday life.
- This course aims to increase your knowledge of psychology and provide you with the tools to think about psychological issues.
- In many countries psychology has an impact on policy, practice and culture in general.
- Psychological research and knowledge may sometimes be developed from common sense, but, as a discipline, psychology is different from common sense in that it is evidence-based and the result of systematic research.
- Psychology has diverse roots – in medicine, philosophy, biology, psychoanalysis and ethnography.
- Psychological knowledge, like all knowledge, is a product of different cultures, historical periods, ways of thinking, developing technologies and the acceptability of different methods and kinds of evidence.
- There is no single 'right' way to answer psychological questions: psychology, at the start of the twenty-first century, is a multifaceted discipline.

2 The breadth of psychological research

2.1 An evidence-based enterprise

We have seen that psychology is an evidence-based enterprise and we have also seen that disputes about what *should* count as evidence have had an important impact on the development of psychology as a discipline. For example, the rise of behaviourism was driven by the idea that only observable behaviour is legitimate data for psychology because only data that can be observed by others, and agreed upon, can be *objective*. Many other disciplines have had less trouble with this issue, partly because they have fewer choices about which methods to use, what kinds of data to collect and what kinds of evidence to accept. Think, for example, of mechanical engineering, chemistry or geology and compare these with psychology. The range of choices open to psychologists arises from the complexity of their subject matter – understanding and explaining humans and, to a lesser extent, other species.

Psychology is unusual because its subject matter (ourselves) is not only extremely complex but also reactive, and because we are inevitably involved in it, personally, socially and politically. This involvement is part of what fuels debates about how to do psychology and what counts as legitimate data.

This section will give some examples of how the unusual nature of psychology as a subject influences the practice of research. We shall look at the impact of our 'involvement' on how research questions are formulated, at the various kinds of evidence that could be used, and at the range of methods that are available to collect the evidence and to evaluate findings.

2.2 Researching ourselves

Psychology aims to provide understandings of us, as humans. At a personal level this closeness to our private concerns draws us in and excites us. However, since psychologists are humans, and hence are researching issues just as relevant to themselves as to their research participants, they can be attracted towards researching certain topics and maybe away from others. This is perhaps more evident for psychological research that is most clearly of social relevance. At a societal level all kinds of social, cultural and political pressures, explicit or subtle, can influence or dictate what kinds of psychology, which topics and which theories, are given priority and funding. Until relatively recently, for example, it was difficult to obtain funding for research that was based on qualitative methods. This was because there was an erroneous belief in psychology, and in the culture more generally, that qualitative research could only help in gaining very specific and idiosyncratic understandings of particular individuals and could not make any useful contribution to broader understandings of people and psychological processes.

At a more personal level, what might psychologists bring to their theorising and research? Think about Freud. Many writers have speculated on what might have influenced Freud's work. One of his basic propositions was that all small boys, at approximately 5 years of age, are in love with and possessive about their mothers, seeing their fathers as

frightening rivals. He called this the ‘Oedipus complex’. We don't have to think too hard to realise that there could be a link between Freud's idea that the Oedipus complex is universal (applies to all male children in all cultures) and Freud's own childhood. He was the eldest son of a young and reputedly beautiful second wife to his elderly father. Another example, where the early personal life of the influential psychologist, Erik Erikson, may have affected his later theorising about the difficulty of finding an identity during adolescence.

Figure 3 Freud and his mother (1872)

It is possible also that our desires, beliefs and ideologies define not only *what* we want to study but also *how we interpret our findings*. Bradley (1989) alerts us to this possibility in relation to the study of children when he argues that different theorists have found support for their own theories from their observations of children. This indicates that personal

values and beliefs are important in influencing the ways in which we view the world. Suppose you were engaged in an observational study of the effect on children's aggressive behaviour of viewing aggression on television. If you felt strongly about this issue, your observations of the way that children play after watching aggressive programmes might be biased by what you believe. It would be difficult to be objective because your own feelings, beliefs and values (your *subjectivity*) would have affected the evidence. Personal prejudices, cognitive biases, 'bad days' and unconscious factors can affect what we 'see' when we observe other people. We shall see later in this course how the experimental method has endeavoured to minimise this kind of subjectivity, whilst other approaches – those concerned essentially with meanings and with people's inner worlds – have used subjectivity (people's reflections on themselves) itself as a form of data.

2.3 A brief look at different kinds of data

For a long time there has been a very important argument about what are the 'legitimate data' of psychology – what can and should be used as evidence. We have already seen that, from the very beginnings of psychology as a formal discipline, psychologists have used experimental methods, observations and introspection. In one form or another these methods continue to be central to psychology. The experimental method, adapted from traditional science, has most consistently been considered the dominant psychological method, providing data which can be 'seen from the outside' (outsider viewpoint) without recourse to introspection or people's own accounts of their mental states (insider viewpoint). However, as the research questions asked by psychologists have changed over time, research methods have broadened to include a range of different methods that produce different kinds of data. *Outsider viewpoints* gained from experiments and observations and *insider viewpoints* from introspection, interviews and analyses of what people say (and how they say it) all flourish as part of psychology in the twenty-first century. What *are* the legitimate data of a multi-perspective psychology? What can different kinds of data usefully bring to psychology?

A simple scheme can be used that divides the varieties of *data* into four categories.

2.3.1 Behaviour

First, for many decades, 'behaviour' has provided the most dominant kind of evidence – what people and animals can be seen to do. Behaviour can cover a very wide range of activities. Think about examples such as a rat finding its way through a maze to a pellet of food, a participant in a memory experiment writing down words five minutes after having done a memorising task, a small group of children who are observed whilst they, jointly, use a computer to solve a problem, a teenager admitting to frequent truancy on a questionnaire. Some of these examples are behaviours that are very precisely defined and involve measurements – how fast the rat runs, how many words are remembered. This would be classed as quantitative research (i.e. with measurements and probably a statistical analysis). Other behaviours, such as the children learning to solve a problem using a computer, are less well defined but can be observed and described in detail, qualitatively (i.e. not measured and subjected to statistical analysis), or sometimes quantitatively (for example, when the frequency of particular actions can be counted up). The truancy example involves a *self-report* about behaviour that is not actually seen by the researcher. These particular examples of behaviours as data come from quite

different psychological research traditions which you will learn about in the chapters that follow. The important point here is that behaviour is, in principle, observable – and often measurable in relatively objective ways – from the outside.

2.3.2 Inner experiences

A second kind of data is people's inner experiences, including their feelings, beliefs and motives. These cannot be directly seen from the outside; they remain private unless freely spoken about or expressed in some other way. Examples of these inner experiences include feelings, thoughts, images, representations, dreams, fantasies, beliefs and motivations or reasons. These are only accessible to others via verbal or written reports or as inferred from behaviours such as non-verbal communications. Access to this insider viewpoint relies on people's ability and willingness to convey what they are experiencing, and it is always problematic to study. This is because we often do not have the words to say what we experience, or we are not sufficiently aware of what we are experiencing, and/or cannot describe experiences quickly enough or in ways that others would understand. And parts of our inner worlds may be unavailable to consciousness. The psychoanalytic approach suggests, for example, that much of what we do is driven by unconscious motives, making it difficult or impossible to give accounts of our motivations. An example of the kind of data that comes from the insider viewpoint is people's answers to the question ‘Who am I? Notice, however, that there is a paradox here. Although the data are essentially from the inside, the very process of collecting and interpreting the data inevitably introduces an outsider viewpoint. Sometimes the researcher can focus as far as possible on the subjectivity of the data – its meaning for the individual concerned – in effect, trying to see and think about the data ‘through the eyes of the other’. This is what happens most of the time in psychoanalytic sessions. But for other purposes the researcher may stand further back from the individual and impose ‘outsider’ categories and meanings on the data. This, too, happens in psychoanalytic sessions when the analyst makes an interpretation of the patient's account from an outside, theoretical or ‘expert’ position.

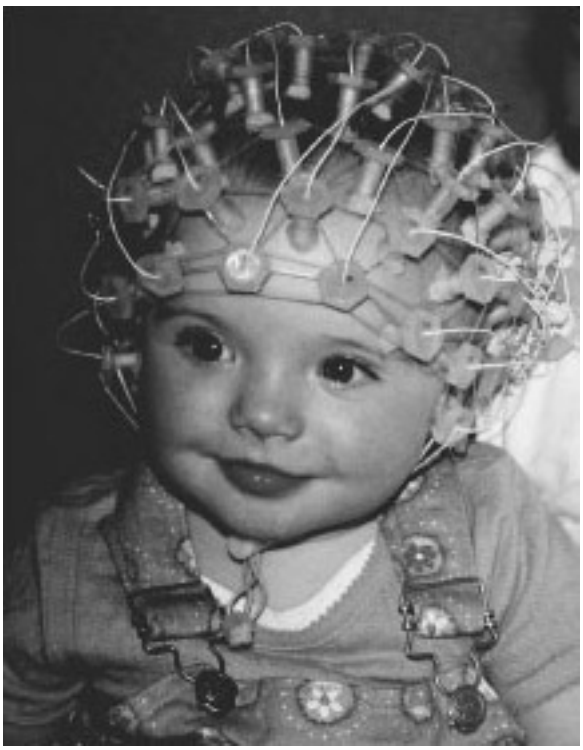

Figure 4 Psychologists at Birkbeck College, University of London, have pioneered a method of studying brain activity in infants as they attend to different pictures

2.3.3 Material data

A third kind of data is ‘material’ and provides more direct evidence from bodies and brains. This comes from biological psychology and includes biochemical analyses of hormones, cellular analyses, decoding of the human genome and neuropsychological technologies such as brain-imaging techniques. The data that can be collected from the various forms of brain imaging provide direct evidence about structures in the brain and brain functioning, enabling direct links to be made with behaviours and mental processes. For example, you may read about different kinds of failure of remembering, each of which can be shown to be associated with injury to particular locations in the brain. A familiar example of material evidence is the lie-detector technique where the amount of sweat that is excreted under stress changes the electrical conductivity of the skin.

The actual raw data are the measures of the amount of current that passes through the skin, but these data are a direct indication of the amount of sweat produced, which in turn is an indicator of stress and so assumed to be evidence of lying.

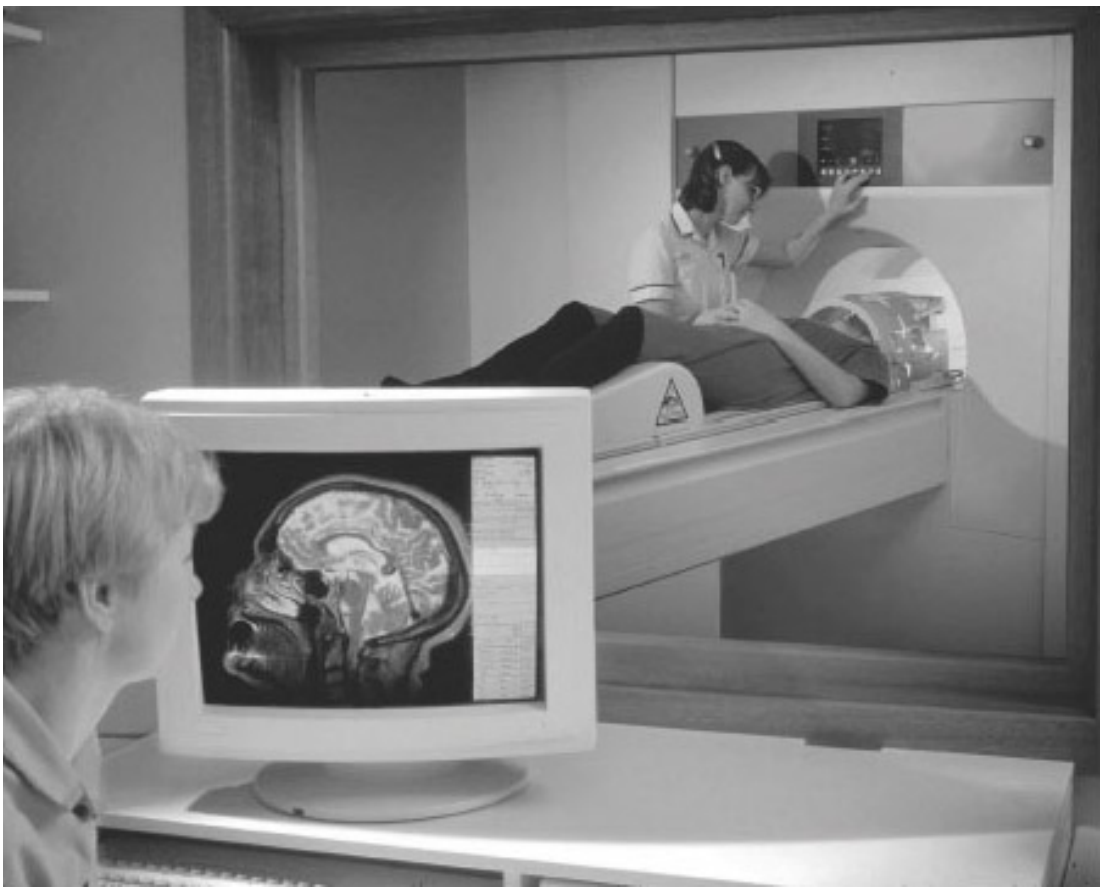

Figure 5 While participants are in a brain scanner, psychologists (or doctors) view their brains on a linked computer

2.3.4 Symbolic data

The fourth kind of data is essentially symbolic – symbolic creations of minds, such as the texts people have written, their art, what they have said (recorded and transcribed), the exact ways they use language and the meanings they have communicated. These *symbolic data* are the products of minds, but once created they can exist and be studied and analysed quite separately from the particular minds that created them. These kinds of data are used to provide evidence of meanings, and the processes that construct and communicate meanings. You may meet an example of this kind of data, and how it is used, where the language – the actual form of words – used to describe an identity is shown to give a specific meaning to that identity. And the aim of the research is to understand the process of meaning-making rather than understand the inner world of the particular person who spoke the words. The point about these approaches is that they see language as constructive – the speakers (or writers), those with the inside viewpoint, are not always aware of what they are constructing. In general we could say that this fourth kind of data is analysed from an outsider viewpoint that attempts to take the insider viewpoint seriously, but does not privilege it.

3 A brief look at psychological methods

We have looked briefly at the kinds of data that psychologists use as the basis for their evidence and we now offer an overview of the *methods* used to collect these data. Learning about methods is a skill necessary to building up psychological knowledge and moving beyond the base of common-sense knowledge about people that we all use. This section will outline the fundamentals of research procedures and provide you with a terminology – the beginnings of a research language that will help you to understand psychology as well as to evaluate research findings presented in the media.

3.1 The beginning of the research process

What distinguishes psychological research from common sense is that psychologists approach information and knowledge in a systematic and *consciously articulated* way. They use rules and procedures about how to build and apply theories, how to design studies to test hypotheses, how to collect data and use them as evidence, and how to evaluate all forms of knowledge. (See Figure 1, 'The cycle of enquiry' in Box 1.)

The start of the research process requires a gradual narrowing of the field. A topic has to be chosen, concepts have to be defined and the aims of the research have to be clearly specified. The process of choosing a topic or area to research will be influenced by one of several factors that usually interrelate. In practice, researchers come to a field of study already constrained by many factors. They bring with them their personal concerns. They may be part of a research group where the topic is already defined and the project is under way. They are likely to be working with a particular set of theoretical assumptions by virtue of their location – in time and in a culture, a society, a particular university, and a particular interest group. Certain types of research question are fashionable; some attract funding, some don't. Researchers generally already have ideas about what would be an 'appropriate' theory. In other words, they have preconceptions about 'the nature of people', what would be a suitable question, and what would be acceptable evidence. What all this means is that research is done within a context that is made up of assumptions about the subject matter and the ways in which it should be studied. This kind of context is called a *paradigm*.

Researchers have to ensure that research is relevant and establish what research has already been done on the topic by examining the existing literature. This helps to ensure that they do not unintentionally repeat what has previously been done or found to be a dead end.

The research question itself has to be answerable; many questions about human psychology that might seem to make good sense could not usefully be researched. For example, the question 'Why do we remember?' is potentially interesting but it is not sufficiently precise to be the basis of a research project. It does not, for example, distinguish whether we should look for parts of the brain that are associated with memory, or consider the mental strategies that facilitate memory, or investigate the social and emotional motivations that make it more likely that we will remember some things rather than others.

However, we can ask a more specific question, such as 'Are different areas of our brain involved in remembering familiar, compared with unfamiliar, faces?' This question serves to guide us towards using the technique of brain imaging in an experimental setting –

recording images of brain activity whilst the research participants try to remember either familiar or unfamiliar faces. It is then possible to formulate a *hypothesis* (a testable claim) about the relationship between brain functioning and memory for faces. We may, for example, hypothesise that more areas of the brain will be involved in remembering familiar compared with unfamiliar faces. Then we have to work out exactly what is going to count as a familiar, as opposed to an unfamiliar, face; for example, close family members in an ongoing relationship as opposed to people never before encountered. We also have to work out how the raw data of the brain images will be interpreted and how they will be used – will it be a comparison of locations of activity or a measurement of the extent of brain activity? This process of defining concepts and making them useable in practice is called *operationalising* the research problem.

Many areas of psychology require that researchers generate hypotheses before they start the process of research investigation. These are usually the areas of psychology and the traditions where research is already well-established. But in a new area or in a tradition where exploration and detailed description is itself the research goal, research begins without specific hypotheses. Darwin's work of describing, cataloguing and categorising species is an example of research in what was then a new area, before any theory was devised and therefore without hypotheses. Since that time, his theory of evolution has generated many hypotheses which have been tested.

Once the research question has been devised and the problem operationalised, researchers then need to decide on the people they are going to include in their research – the *participants*. For the 'memory for faces' question mentioned above, the possible population for the research could be everyone in the country and it is obviously impossible to study them all. It is, therefore, necessary to work out what the *sample* should be. The researcher may, for example, have negotiated permission to ask for volunteers from a particular company. She may then define the sample as 'one volunteer in every 20', chosen at random. Since the volunteers will be undergoing brain imaging, each participant would be brought into the specialist hospital for access to the imaging technology. For this study, it is clear that brain imaging will be the method used to collect data and the data will be the actual images produced, although these images have to be 'read' and interpreted and converted into evidence.

The example above uses direct imaging which is a neuropsychological technique, but it is used as part of an experiment (i.e. comparing the effect on brain activity of viewing familiar and unfamiliar faces). The most commonly used psychological methods are experiments, questionnaires, interviews, psychological tests, observations, and meaning and language-based methods.

Experiments, the most common psychological method, are used to try to discover if there are causal relationships between *variables* (so called because their values can vary). If, for example, the variable we are interested in is the time taken for drivers to react to an emergency, we may devise an experiment where we *manipulate* the noise levels in their cars to see whether this has any impact. In this case, the noise level in the car will be the *independent variable* and the driver's response time (a behaviour which we hypothesise is dependent on in-car noise levels) will be the *dependent variable*. This sort of experiment may take place in a driving simulator in a laboratory or on private roads. In an experiment, there are often two groups of participants: a *control group* that is not subjected to the manipulation of the independent variable and an *experimental group* that is subjected to the manipulation. In the example here, the control group may not be subjected to any in-car noise at all. Findings from experiments are analysed statistically. Psychologists using experimental methods have a number of techniques at their disposal to ensure that they do not simply find what they expect or what they want to find. These include *random*

allocation to groups where the researcher does not choose whether a participant goes into the experimental or control group, and '*blind scoring*', where those who score a participant's behaviour do not know which group the participant belongs to.

3.2 Questionnaires and interviews

If we are interested in what people think or feel, or in behaviours that are difficult to observe in humans, we need to *ask* people about themselves. This is a variant on introspection, in that researchers are not looking inside themselves but are using the best possible means to obtain other people's introspections. Psychologists do this through both questionnaires and interviews. Many of you will have filled in questionnaires from market researchers on the street or at home. *Questionnaires* are written questions designed to elicit short answers or choices between options. They can be completed whether or not the researcher is there and so can be used with thousands of people in a study. For this reason they are usually tightly structured, with questions asked in an invariant order and often with the range of possible answers worked out in advance so that the data can easily be entered into a computer for statistical analysis.

Interviews are face-to-face conversations between a researcher and an interviewee or group of interviewees. Since they are face-to-face, samples used are usually smaller than for questionnaires. Interviews can be tightly structured (as for questionnaires) or more open-ended. They can, therefore, be analysed either quantitatively and statistically, or qualitatively, where researchers transcribe tape-recordings of the interviews, read them repeatedly and analyse their themes.

Figure 6 Examples of questionnaire and group interviews

3.3 Psychological tests

The most commonly used *psychological tests*, such as intelligence tests and personality tests, are highly structured forms of self-report where participants have to solve problems or choose from fixed alternatives on a questionnaire. Researchers then work out a score for each participant that gives information about their intelligence or personality. These

tests are different from ordinary questionnaires in the way they are constructed and pre-tested. They are tried out on large numbers of people before being used as research or diagnostic tools. This gives a picture of how the test scores are distributed across the population for which the test is designed. It is, therefore, possible to compare a particular individual's test scores with the average from the population and to make statistical comparisons between different groups.

3.4 Observations

Observations are the most direct method of getting information about people's behaviour. In everyday life we all frequently observe other people. Psychologists have devised a range of methods for systematically observing other people. These range from participant observation through to highly structured and targeted observations. In *participant observation*, the researcher is part of what is being observed and writes up notes whenever possible. Sometimes these notes include an insider viewpoint account of how the researcher is feeling. A well-known example is that of Rosenhan and seven collaborators in the 1970s who, although not ill, feigned mental illness and managed to get themselves admitted to a psychiatric hospital (Rosenhan, 1973). Once in the hospital they behaved 'normally', i.e. as they would in the outside world. They kept notes of all they observed (outsider viewpoint) and what they experienced (insider viewpoint), including the experience of having their 'normal' behaviour and talk interpreted as evidence of their mental illness. (They had a lot of trouble getting discharged from the hospital.) The data from observations such as these are analysed qualitatively, paying attention to meanings and to the place of the researcher in the observation.

In more *structured observations*, researchers may have clear categories of behaviour on which they know they want to focus. They may choose a specific individual such as a target child in a school, perhaps counting the number of times that child makes a friendly approach to another child and noting down what is said. They may also observe through a one-way mirror so that they are not visible to the people being observed and, hence, do not interfere with whatever is being observed. These kinds of observations can be analysed either quantitatively and statistically, or qualitatively.

3.5 Meaning and language-based methods

In recent years many psychologists have become interested in language as an important human 'product' (the symbolic data described in Section 2.3 above). There are various ways in which psychologists analyse conversations, data from interviews and written texts. One of the most popular methods is *content analysis*, which involves counting up the prevalence and sequencing of certain words, sentences, expressions, metaphors, etc., in texts such as newspaper articles or transcripts of interviews. It can also be used to identify the types of explanations people give for their own behaviour or use in order to persuade people to support them or agree with their argument. It is predominantly a quantitative method.

Another popular method is *discourse analysis*. This is a qualitative method that provides detailed analyses of exactly what language is used and how it is used. For example, discourse analysts would try to identify the rhetorical devices by which we all as speakers seek to persuade each other of our arguments, and the functions served by various discourses. Discourse analysts do not aim to find 'the truth' about how people use

language. They are more interested in the processes whereby people construct meanings socially and individually. Most discourse analysts are interested in subjectivity – people's own sense-making – and often include an analysis of the researcher's own subjective understandings as part of the analysis of data, thus using a mixture of insider and outsider viewpoints. Discourse analysis is an example of a *hermeneutic* approach. Hermeneutic approaches focus on meaning-making; that is, the work of interpretation. People are treated as meaning-producers, with the task of the psychologist being to interpret meanings. Hermeneutic approaches, therefore, tend to use qualitative methods (rather than measuring variables, taking group averages and drawing conclusions with the help of statistics as in experimental and other quantitative methods). The data they produce tend to relate to particular individuals in specific contexts, rather than generalising to a population as a whole.

3.6 Different paradigms and different methods

These different methods alert us to the fact that psychology is not just one enterprise, but a series of interlocking enterprises in which psychologists have different views about the best ways to try to understand or explain people and their behaviour and experience. These are arguments about *epistemology;* that is, what questions to ask, what sort of evidence to look for, what sort of criteria to use to evaluate explanations, and what sort of methods to use.

All knowledge and all efforts to gain knowledge operate in a context, a set of connected and compatible assumptions about what exists and the way to gain knowledge of it. And we have already seen that research is done within a paradigm, which is a philosophical framework made up of assumptions about the subject matter and the ways in which it should be studied, including the methods and the kinds of data that are considered to be legitimate. The doing of psychology within a given paradigm will, in this book, be referred to as *a. psychological perspective*. The co-existence of different perspectives means that there are debates between psychologists operating in different paradigms, as Peter Barnes explains:

> By now you will have gathered that there is no one approach to the study of psychology – each approach has its advocates and each has attracted its critics. At any one time some approaches are in the ascendant while others are in the doldrums. Different views exist on what subjects are worthy of investigation – and even on whether it is possible to investigate them – and these, too, have fashions.
>
> (Barnes, 1985, p.28)

3.7 Ethical considerations

Since psychological research is mostly done on people and animals, it is often the case that the observations or experimental interventions that a psychologist might want to make have the potential to harm participants and hence raise ethical issues. Furthermore, consequences that might not be directly undesirable for the participants might raise more general ethical principles to do with moral standards and values. Psychologists have

increasingly become aware of ethical issues and recognised that psychological research has sometimes been ethically questionable.

An example from the middle of the last century illustrates this. Between 1959 and 1962 Professor Henry Murray, a personality theorist, carried out a series of experiments on 22 undergraduate men at Harvard University in the USA. These were designed to measure how people respond to stressful interpersonal confrontations during mock interrogations. The aim appears to have been to understand which types of men were likely to be able to withstand brainwashing and interrogation in situations of war. Murray had been engaged in work relevant to this issue during the Second World War. Participants were volunteers who were given a small fee and simply asked if they would be willing to contribute to the solution of 'certain psychological problems'. They were placed in brilliantly lit rooms, filmed through a hole in the wall, and were connected to electrodes that recorded their heart and respiratory rates. While the students had been told that they would be debating their views with another undergraduate, they were actually faced with an older, more sophisticated opponent who belittled their values, making the students feel humiliated and helpless, and rousing them to a great deal of anger. After spending approximately 200 hours as research participants, they were still not clear what the research was about. Chase (2000) suggests that even 25 years later some of the participants recalled how unpleasant was the whole experience. More seriously, however, one of the participants in these experiments was Theodore Kaczynski, who became a student at Harvard in the spring of 1958, when he was only 15 years old. He was later to be nicknamed 'the Unabomber' for mailing or delivering 16 parcel bombs to scientists, academics and others over a 17-year period, killing three and injuring 23. Obviously, it is not possible to say what effect, if any, taking part in Murray's study had on Kaczynski. However, one of his major resentments against scientists was because he felt that they were trying to develop techniques for controlling people's behaviour.

It is not clear whether or not Murray's research has been applied to the control of behaviour by any governments. However, in the 1970s, Tim Shallice (an influential British cognitive psychologist) argued that psychological research on sensory deprivation has been used by governments (including the British government in Northern Ireland) to devise successful methods of preparing prisoners for interrogation. In sensory deprivation experiments, psychologists study the effects of depriving people of sensation by, for example, confining them in isolation in a bed or suspended in a warm water tank. Participants may be kept in the dark or in a room with either no sound or constant 'white noise' – which sounds rather like a radio turned on, but not tuned into any station. Most participants become anxious and disoriented after between 3.5 and 10 hours in these conditions, with some reporting nightmares afterwards. According to Shallice, such research proliferated because it has been funded by the military. Shallice (1972, p.385) argues that there should be 'more stringent editorial control of papers on sensory deprivation in order to reduce the chances' of their being misused to break the resistance of prisoners. There have, therefore, been areas of psychological research whose application raises difficult ethical issues.

In the Murray study, and arguably in sensory deprivation experiments, the potential psychological benefits of the study are far from clear. However, ethical concerns have been raised about two rather more famous US experiments, the findings of which many psychologists see as invaluable. In the 1970s, Zimbardo set up a mock prison in his psychology department. He then randomly assigned Stanford student volunteers to 'guard' or 'prisoner' status. In an experiment designed to last two weeks, the 'guards' became so harsh and the 'prisoners' so distressed that the experiment was terminated after six days. Follow-ups over several years showed no apparent long-term ill effects of

the experiment (Zimbardo et al., 1995). Although the experiment is often praised for its dramatic demonstration of how easily people could fall into ‘bad gaoler’ or ‘victim prisoner’ roles in socially produced situations, the question of whether it is ethically defensible to put people into such situations is still hotly debated. For example, would it be possible to arrive at these findings in other ways?

Figure 7 Stanford prison experiment: dejected ‘prisoner’

Similarly, Milgram's classic 1963 experiment, on the relationship between obedience to authority and aggression, continues to stimulate ethical debate. His study was an attempt to research a complex social behaviour, compliance with orders to be aggressive to another person, by taking it out of a real-life context and bringing it into the psychological laboratory. This is an example of research informed by a concern to understand the atrocities committed during the Second World War. Participants were told that this was an experiment to test the effect of punishment on learning. The person to whom they believed they were administering shocks was actually Milgram's confederate who pretended that he was being shocked. The real participants (who were non-student men) were ‘instructed to “move one level higher on the shock generator each time the learner gives a wrong answer”’ (Milgram, 1974, pp. 20–1). Of the 40 participants, 26 continued

obeying the orders of the experimenter to the point where they had administered what they believed were potentially fatal shocks (by pushing two switches labelled 'XXX' on the control panel which were beyond the switch labelled 'Danger: Severe Shock'). The participants were told afterwards, in what is known as a *debriefing* session, that they had not inflicted any pain, but many of them, after realising the implications of what they had been doing, became extremely upset. However, Milgram (1974) sent a follow-up questionnaire to his entire sample and 92 per cent of them returned it. Only 1 per cent of them reported that they were sorry to have participated in the study.

Figure 8 Stanley Milgram, 1933–1984

The ethical dilemma raised by this study concerns whether its potential benefit in helping us to understand how human beings can commit atrocities against each other outweighs the stress and pain it may have caused. Milgram believed that the participants in his series of experiments demonstrated a parallel psychological process to Nazi guards' obedience to authority in Germany in the Second World War. He considered that his studies were 'principally concerned with the ordinary and routine destruction carried out by everyday people following orders' (Milgram, 1974, p. 178).

The dramatic findings from both Zimbardo's and Milgram's studies suggest that it is all too easy for negative aspects of human behaviour to be demonstrated. However, they also show the force of the experimental setting and the power of authoritative researchers to control the behaviour of participants. The experiments brought to light very important issues about the ethics of psychological studies. They raise the major, and difficult, issue of whether the findings of studies justify the possible ill effects which they produce on participants.

Milgram's study informed decisions by both the American Psychological Association and the British Psychological Society to make ethics central to their prescriptions about research. In Britain there was a further impetus in the late 1970s. A psychology department was prosecuted for allowing a postgraduate student to observe the predatory behaviour of cats on canaries when the department had never had a licence to keep canaries for research purposes. There is no doubt that psychological research can lead to harmful effects on humans and animals. Ethical debates, the explicit consideration of the ethics of each research project and the provision of ethical guidelines are the ways in which psychologists attempt to address these problems. The move in the late 1990s by the British Psychological Society (and a little earlier by the American Psychological Association) to change the term used for those who take part in studies from 'subjects' to 'participants' reflects a greater concern for ethics in terms of respect of individuals.

The British Psychological Society (BPS), along with psychological societies around the world, has produced ethical guidelines for the conduct of research. Any psychologist who breaks these guidelines is subject to disciplinary action. Box 2 provides an extract adapted from a recent version of these BPS ethical principles for work with human participants. The British Psychological Society and The Experimental Psychology Society have together agreed guidelines for research with animals. It is usual practice now for all psychological research to require ethical approval from an appropriate group.

Box 2: BPS Code of Ethics and Conduct

The British Psychological Society (BPS) introduced an amended version of the Code of Ethics and Conduct on 31 March 2006. Research is one of the areas of psychological work that generates many concerns and complaints to the BPS. These include complaints about psychologists falsifying data, failing to obtain consent, plagiarism or failing to acknowledge another's work or contribution. The principles below are designed to help psychologists avoid problems such as these. They are not all of the principles provided in the much longer BPS Code of Ethics and Conduct, but a subset which highlights the kinds of issues that need to be considered when conducting psychological research. As the full BPS Code of Ethics and Conduct applies to psychology students as well as to professional psychologists, the complete document is available online via the BPS website. This box first summarises the ethical principles on which the code is based, and then focuses particularly on ethical responsibilities to do with research. Please note that while the focus here is on ethical conduct with research participants, the code covers clients who use psychological services as well as research participants and seeks to promote ethical behaviour, attitudes and judgements on the part of psychologists, including psychology students.

The BPS Code of Ethics and Conduct is based on four ethical principles, which set out the main responsibilities of psychologists. These are: respect; competence; responsibility and integrity:

1 Ethical principle: respect

Psychologists should 'respect individual, cultural and role differences, including (but not exclusively) those involving age, disability, education, ethnicity, gender, language, national origin, race, religion, sexual orientation, marital or family status and socio-economic status' (guideline 1.1 (i), page 10 of the Code). Respect also entails treating people fairly, keeping appropriate records, obtaining the consent of research participants and maintaining their confidentiality, including storing information about them in ways that are not likely to lead to accidental disclosure.

2 Ethical principle: competence

Psychologists must recognise the limits of their knowledge, skill, training, education, and experience and work within them. In order to do this, they should develop and maintain a comprehensive awareness of professional ethics, including familiarity with the Code. They should also be able to justify their actions on ethical grounds.

3 Ethical principle: responsibility

Psychologists should avoid harming research participants and should take care to ensure that they themselves come to no harm in conducting their research. They should also avoid personal and professional misconduct that might bring the reputation of the profession (or the university) into disrepute. Psychologists take responsibility not only for their own actions, but also for the maintenance of ethical standards amongst colleagues, students, employees, etc.

4 Ethical principle: integrity

Psychologists should strive to be fair, accurate and honest and maintain integrity in all of their professional dealings. Psychologists should be 'honest and accurate in representing their professional affiliations and qualifications, including such matters as knowledge, skill, training, education, and experience' (guideline 4.1 (i), page 20 of the Code).

Protection of research participants

The principles listed next have been selected from the BPS Code of Ethics and Conduct (as written there or in slightly edited form) and are based on the ethical principles of respect and responsibility. We have organized these into four different sections, each of which relate to the protection of research participants.

Psychologists should:

Recruitment of research participants

(i) Consider all research from the standpoint of research participants, for the purpose of eliminating potential risks to psychological well-being, physical health, personal values, or dignity (guideline 3.3 (i), page 18 of the Code).

(ii) Undertake such consideration with due concern for the potential effects of, for example, age, disability, education, ethnicity, gender, language, national origin, race, religion, marital or family status, sexual orientation, seeking consultation as needed from those knowledgeable about such effects (guideline 3.3 (ii), page 18 of the Code).

(iii) Refrain from using financial compensation or other inducements for research participants to risk harm beyond that which they face in their normal lifestyles (guideline 3.3 (iv), page 18 of the Code).

Informed consent

(iv) Ensure that research participants, particularly children and vulnerable adults, are given ample opportunity to understand the nature, purpose, and anticipated consequences of research participation, so that they may give informed consent to the extent that their capabilities allow. The consent of those in positions of responsibility for children and vulnerable adults will also have to be sought (guideline 1.3)i), page 12 of the Code).

(v) Seek to obtain the informed consent of all research participants to whom research participation is offered (guideline 1.3 (ii), page 12 of the Code).

(vi) Keep adequate records of when, how and from whom consent was obtained (guideline 1.3 (iii), page 12 of the Code).

Participant control over participation

(vii) Ensure from the first contact that research participants are aware of their right to withdraw from research participation at any time (adapted from guideline 1.4 (ii), page 14 of the Code).

(viii) Comply with requests by research participants who are withdrawing from research participation that any data by which they might be personally identified, including recordings, be destroyed (guideline 1.4 (iii), page 14 of the Code).

(ix) Inform research participants from the first contact that they may decline to answer any questions put to them (adapted from guideline 3.3 (vii), page 18 of the Code).

(x) Exercise particular caution when responding to requests for advice from research participants concerning psychological or other issues. If it seems appropriate, suggest that they seek professional help (adapted from guideline 3.3 (ix), page 19 of the Code).

(xi) Unless informed consent has been obtained, restrict research based upon observations of public behaviour to those situations in which persons being studied would reasonably expect to be observed by strangers, with reference to local cultural values and to the privacy of persons who, even while in a public space, may believe they are unobserved (guideline 1.3 (ix), page 13 of the Code).

Debriefing of research participants

(xii) Debrief research participants at the conclusion of their participation, in order to inform them of the nature of the research, to identify any unforeseen harm, discomfort, or misconceptions, and in order to arrange for assistance as needed (guideline 3.4 (i), page 19 of the Code).

(xiii) Take particular care when discussing outcomes with research participants, as seemingly evaluative statements may carry unintended weight (guideline 3.4 (ii), page 19 of the Code).

Source: adapted from The British Psychological Society, 2006

It is important to note that there are likely to be other codes, statutes and ethical guidelines that are relevant in certain contexts. This may include legislation, university ethical procedures, education authorities and medical boards. It is now common for those working with children to have to obtain CRB (Criminal Records Bureau) clearance.

Psychology has changed since the 1960s and 1970s when Murray, Milgram and Zimbardo conducted their studies. Today, however, psychologists are still faced with ethical issues, many of which are subtle and difficult to foresee.

For example, in a research project on mothering, one of the authors of this course conducted an interview where the mother's husband was present. While this was not ideal because the interview was meant to be only with mothers, it was very difficult to obtain interviews in this study and so the researcher felt that every opportunity had to be seized. The session seemed to go very well and the mother appeared frank and forthcoming. However, at the next interview with the mother, a year later, the husband put on his coat as soon as the researcher appeared. When the mother asked where he was going, he explained that he was not going to stay to hear her ‘winding him up again’. The previous interview had clearly raised issues for their relationship. With hindsight, it may have been

ethically preferable for the researcher not to have done the interview with the father present – even though the mother had been very keen to continue. Or, rather than only concentrating on the mother, it may have been better to include the father in the interview since he was there. However, any interview can raise unanticipated ethical questions since just talking about topics can raise unexpected issues for participants in research.

To take another example, suppose you are doing a non-participant observation of an infant with his/her mother, in a naturalistic setting (the home) where the older sibling is also in the room, playing. What happens if the mother puts the infant in the crib and then goes into the kitchen but the older child immediately comes over and rocks the crib so violently that the baby is in danger of falling out? What do you do? It would be usual to intervene to avoid harm to the baby and probably that is what you would do. But then you would no longer be a non-participant observer – you would have entered the action and would be affecting what you were supposed to be recording. This could constitute an ethical dilemma. Alternatively, what should a researcher observing a family do if, having promised confidentiality to a mother, she sees a child obviously drunk and carrying a vodka bottle? It is normal good practice, in research and therapy, to assure the participants or clients of confidentiality, but with the explicit proviso that the researcher or therapist has a duty of care if the participants or clients are seen to be in danger of serious harm or harming others.

The above examples may seem simple in that they were not directly caused by the psychologist but were problems that arose within the research setting. (Note, however, that the mother in the infant observation example may have left the older child with the infant only because there was another adult in the room, who, the mother presumed, would intervene if necessary.) But these examples also illustrate that psychologists have to consider ethics when they make research choices about what to do, how to do it and how to analyse it. In other words, psychologists face ethical dilemmas in all aspects of how they conduct their research. For example, psychologists' approach to working with animals has changed enormously; when the authors of this chapter were students it was not uncommon for undergraduates to do research with animals. While this has become generally unacceptable, and many psychology departments no longer have animal laboratories, animals are still used for some research on learning and on brain functioning – although advances in neural imaging and computer modelling of brain functioning have made the use of animals in psychological experiments much less necessary. When animals *are* used now, ethical guidelines require that psychologists demonstrate that they could not do the same research without using animals and that the animals used are not subjected to any more pain or discomfort than is absolutely necessary. However, some people undoubtedly find any use of animals in psychological research unacceptable.

The question of deception often raises ethical dilemmas. Yet, it is not always ethically indefensible for psychologists to deceive the participants in their studies (as is clear from the British Psychological Society ethical guidelines). For example, it is common for memory researchers not to tell their participants in advance *what* they will be expected to remember during the tasks they are given or even that they are taking part in a memory experiment. This is because telling participants what they will be asked to remember is likely to change the way they approach tasks and, since this minor deception does not result in harm, psychologists generally consider it acceptable for this form of deception to continue. But memory researchers now consider it ethically important to reveal any deception that has been used to the participants after the study, during a process of debriefing.

Similarly, experimental social psychologists frequently do not tell their participants exactly what is being studied or the basis on which they have been selected. For example, in a

well-known experiment, Henri Tajfel and his colleagues (1971) randomly assigned boys to groups. However, they told the boys that they were being divided on the basis of their liking for the paintings of either Klee or Kandinsky, to make the participants think that amongst them there were 'two sorts of people'. This is not usually considered ethically problematic. However, some social psychological experiments raise potentially more troubling ethical issues. For instance, some psychologists stage minor accidents (such as someone tripping up and falling over in apparent pain) in order to observe helping behaviour. While there may be important benefits from understanding what influences helping behaviour, the psychologists doing the research have to weigh up whether the potential benefits of the study outweigh the distress that may be caused to passers-by. And all psychological research should offer, or be ready to offer, professional support for participants who might become distressed. This also applies to the researchers, who may in some situations require support themselves. It is important that researchers think about, and take care to remain within, their own competence levels, thus not exposing their participants or themselves to situations which they, the researchers, may not be able to deal with.

Activity 3

Look back at the description of the Murray study at the beginning of this section. Using the ethical guidelines presented in Box 2, note down how the Murray study contravenes current ethical principles. Having done this, consider how the interview described in the mothering study above might fail to fit with the guidelines. The fact that this interview situation is not a clear-cut example should help you to see some of the difficulties involved in making ethical decisions in psychological research.

Psychologists have also become increasingly conscious of ethical issues in professional practice. The importance of ethics has been underlined by the large number of psychologists who now work with patients or clients in the helping professions, business settings, forensic psychology or other roles. In the consulting room, patients or clients are often in distressed or in dependent states and are particularly vulnerable. Ethical issues around confidentiality, data protection and the legal status of case notes also now contribute to the level of awareness that professional psychologists need in order to work within their professional guidelines and their national codes of conduct. Since ethics are important to psychology, try to keep the British Psychological Society's ethical principles in mind as you think about the studies you encounter.

3.8 Summary

- Because the subject matter of psychology (ourselves and non-human animals) is complex and reactive, psychologists have to choose from amongst a wide range of methods.
- Psychologists make use of methods that aim to maximise objectivity; they also use methods that focus on and explore subjectivities and meanings.
- Depending on the topic they are researching, psychologists can choose to adopt an outsider viewpoint or an insider viewpoint.
- During the research process, psychologists collect data and use it to arrive at evidence for their claims. Four different types of data are used by psychologists from

different paradigms: behavioural data; personal accounts of inner experiences; material data such as biological and neuropsychological data; and symbolic data.

- The research process starts by isolating a sufficiently specific and answerable question. In some studies it then involves choosing an appropriate method(s) which will provide data to test the claim or the hypothesis underlying the research.
- Some research projects do not begin with a specific question or a specific hypothesis but are about understanding meanings.
- The most commonly used psychological methods are experiments, questionnaires, interviews, psychological tests, observations, and meaning and language-based methods.
- Psychological research is conducted within a paradigm – a framework made up of assumptions about the subject matter and ways it should be studied, the methods and data that are considered to be legitimate.
- Contemporary psychologists work in different paradigms: the doing of psychology within a given paradigm will be referred to in this book as a psychological perspective.
- Ethical issues are a major factor in psychological investigations and practice.

4 Conclusion

This course has explored the social impact of psychology and provided a brief historical overview to explore the diversity of psychology as a discipline. You have read about the different kinds of data that are used as evidence and the different types of methods used to gather these data. You have also gained an understanding of the ethical issues that need to be considered when conducting research.

The material for this course is taken from the introductory chapter to the course DSE212 *Exploring Psychology*. If you wish to learn more about the different sub-disciplines within psychology that draw on different traditions then you may consider registering on DSE212, which will provide a *map* of the discipline and also look at three important topics to exam how different perspectives used in psychology can each contribute to our understanding of these complex issues. Available here on OpenLearn is another course drawing on material from DSE212, *Understanding Dyslexia*.

In terms of other further study with OpenLearn, you may wish to explore yourself how psychological enquiry exists within a broader social and historical context. If so, you should take the associated course on OpenLearn called EPoCH (Exploring Psychology's Context and History), which is an interactive package originally designed for the course *Exploring psychology* (DSE212) . It is an exploratory resource that will given you an indication of the historical period and place in which the psychologists studied on DSE212 were working. It will help you gain a sense of the cultural influences on their thinking and how they grouped together in terms of direct contact and influence on each other. You will be able to develop your understanding of psychology and follow your own particular interests.

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Box 2 adapted from 'Ethical Principles for Conducting Research with Human Participants 2000', pp7-11, Code of Conduct, Ethical Principles and Guidelines, The British Psychological Society.

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